



Management Social and Environment

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Material aspects

Aspect: Access and purchasing power of public utilities

Availability of public services through conventional and alternative solutions that promote human development and the development of territories.

Purchasability refers to the options and solutions available for users and customers to have the possibility to permanently enjoy public utilities, meeting their tastes, preferences and needs and taking into account their ability and willingness to pay. Purchasability solutions are as follows: Paga a tu medida (Pay according to your needs), Prepaid Services, Financing of bills and the Loyalty and Rewarding Program of the EPM Group, "Somos."

Access implies service availability, in compliance with regulations and standards, through infrastructure solutions such as rural electrification, Energía para el Retorno (Energy for the Return), Gas sin fronteras (Gas Without Borders), Dignifying Homes, public standpipes and community meters, which also aim at providing the service to populations living in areas with technical or legal restrictions for its provision. This is further explained in Unserved population.

EPM Foundation runs a program called Agua para la Educación, Educación para el Agua (Water for Education, Education for Water), which aims at facilitating access to this service by installing water

purification solutions in rural educational institutions in Antioquia. For further information, please refer to EPM Foundation

Stakeholder's Vision

Issues such as the low purchasing power of the market, the risk of an increase in the number of disconnected users and the large number of vulnerable people, challenge the organization to develop programs to improve access to and purchasability of its services..

Importance

Universalization, understood as purchasability and access solutions, is a focus of the CSR policy. It is included in the social dimension of the BHAG approved by the Board of Directors of EPM; it is at the core of the business and is the essential contribution of the EPM Group to build sustainable and competitive territories.

It is translated into high social value for the Group's companies and their stakeholders, and has important implications for building sustainable and competitive territories.

Main achievements

Goals for 2015	Achievements for 2015	Compliance
EPM		
Energy service		
Connecting, through the Habitable Homes program, 27,784 customers to the electricity service, and facilitating participation of 5,300 homes in the rural electrification program to provide families with information and advice on the new electricity service.	28,009 customers were connected to the electricity service through the Habitable Homes Program, of which 5,778 were connected to this service through the rural electrification program. Beneficiary families were provided with information and advice on the new electricity service.	Total
Registering 14,000 new customers to the Prepayment electricity service.	19,987 customers joined the Prepayment electricity service, achieving 143% compliance with the goal.	Total
Natural gas service		
Providing natural gas service to 20 new towns in Antioquia and connecting 74,315 new customers to the natural gas service. Of this total, 65,596 new customers belong to strata 1, 2 and 3, and will be connected to this service through the Habitable Homes Program.	In 2015, EPM was able to reach, through its infrastructure, 30 new towns, of which 19 are already using the services and the remaining 11 ended the year with built infrastructure. Regarding new customers, 72,190 new customers were connected to the service, 59,914 of them belong to strata 1, 2 and 3 as part of the Habitable Homes Program.	Total

Goals for 2015	Achievements for 2015	Compliance
		EPM
Water supply and sanitation service	<p>In the Llanaditas sector, water supply and sewerage services were provided in the following neighborhoods: Llanaditas, Golondrinas, El Pacífico and La Torre, located in Medellín's district 8, which benefited about 10,000 people.</p> <p>Moreover, the location of the land and water conveyance easements for the Caldas-La Estrella interconnection project and La Estrella expansion.</p> <p>Project began. Moreover, in the Valle San Nicolás project, works for the inspection of drinking water in the area of Alto de las Palmas, in the municipality of Envigado, were carried out. There, the water treatment plant, tanks, water distribution and conveyance networks are nearing completion.</p> <p>Regarding access to public standpipes, in the Board of Directors, the model for Medellín was approved; a working group between EPM and the Municipality of Medellín was created for determining the sectors that will start billing, and an awareness-raising meeting was held with the leaders of the selected sectors.</p>	Total
Registering 10,500 customers to the prepaid water service.	On June 26, the Prepaid water project was commercially launched. 7,351 customers were connected to the service.	Partial

Goals for 2015	Achievements for 2015	Compliance
		EPM
Cross-cutting issues		
Constructing the necessary infrastructure in areas without coverage in order to provide the electricity service to 5,537 customers in Antioquia, the water supply service to 3,387 customers and the sewerage service to 2,890 in the Valle de Aburrá, and the natural gas service to 2,783 customers in Medellín.	Infrastructure was constructed to expand coverage, facilitating the provision of the electricity service to 6,272 customers, the water supply service to 1,348 customers, the sewerage service to 1,348 customers and the natural gas service to 2,969 customers.	Partial
Developing a work plan for defining the access indicator in areas without coverage: definition of a methodology for calculating the magnitude of the problem in Medellín and Antioquia (potential number of installations), identification of potential solutions that will mitigate access to the service and their advantages, preparation of an action plan for the proposed solutions, definition of goals for Medellín and Antioquia from 2016 onwards, and start of work with subsidiaries to implement calculation of the indicator from 2016 onwards.	"The methodology to identify the magnitude of the problem in Medellín and Antioquia was defined. For each service, solutions and the action plan to address the population identified were defined (Habitable Homes, Prepayment electricity, public standpipes, network expansion). Likewise, the goals for Medellín were defined."	Partial
Registering 9,000 new customers to the Paga a tu medida (Pay According to Your Needs) program.	Since February 2015, the target market was expanded for customers who have payment difficulties. Because of this expansion, the goal for 2015 was modified, going from 9,000 to 17,000 customers connected. At the end of 2015, 27,684 active customers are reported since the launch of Paga a tu medida (Pay According to Your Needs) program in 2014. In 2015, 23,099 customers joined the program.	Total
Registering 404,600 customers to the Loyalty and Rewarding Program "Somos" and achieving a cumulative total of 450,000 people registered.	In 2015, 412,803 customers joined the Loyalty and Rewarding Program "Somos". As of December, a cumulative total of 472,056 customers was achieved.	Total
Benefiting 30,000 customers through the Credit for your home program and achieving a cumulative total of 200,000 customers registered.	22,898 customers were benefited through the Credit for your home program, achieving a cumulative total of 184,785 customers.	Partial

Energy subsidiaries

For the EPM Group, an essential part of its Corporate Social Responsibility strategy is based on promoting and ensuring access to electricity for people living in isolated areas and in communities of low purchasing power, located in outlying, rural and suburban areas. In the case of the subsidiaries, no goals were reported in 2014; however, we highlight the following actions:

ESSA, with the Iluminemos Santander (Let's illuminate Santander) project exceeded the goal set in 2015 to provide electricity to 3,791 families, achieving a rural coverage of 91.84%. This EPM Group's company managed to provide electricity to 4,392 rural homes that did not have this service in different rural settlements in 62 municipalities in Santander, increasing its coverage to 92.29%. Moreover, the financing strategy Pacto (Pact) continued to be implemented in 2015, and ESSA found a strategic ally for managing portfolio through customized visits in the areas of Bucaramanga and Barrancabermeja. The company managed to connect 685 homes to the Prepayment electricity program, benefiting 2,740 people.

With 4,073 new customers in 2015, EDEQ reached 99.2% coverage regarding the energy service in the urban and rural areas of Quindío. 10.7 km were built in voltage level 2 (VL2) and 6.4 km, in voltage level 1 (VL1) for connecting new customers and enabling transfers between circuits. In this way, user coverage increased, and availability, reliability and quality of service improved.

In CENS, through the rural electrification program, 14,620 people, who did not have electricity, were provided with access to this service. 3,655 connections were installed, with an investment in infrastructure of COP 43,337 billion.

In CHEC, 10,187 customers were connected regarding and new services and connection projects. Infrastructure for underground networks was built. Ecological wires continued to be installed, installing 11.2 km of wire covered in the 13.2 kV circuits, and construction of the 13.2 kV interconnection of Arbodela circuits in Pensilvania Substation with the Cristales circuit in Florencia Substation is 90% completed.

In Eegsa, in Guatemala, 40,484 new customers were reported, mostly from the residential and commercial sectors (3.7% more than in 2014). 23 rural electrification projects were built, with 517 new contracts in the year.

In Delsur, 16 rural electrification projects were built, with 261 new connections and benefits for 2,175 people. For these customers, a special connection and financing rate for their internal network was offered.

In ENSA, the number of bills with Prepaid electricity continues to grow. This billing system allows customers with limited or irregular income to adjust their electricity purchases according to their needs.

Water supply and sanitation subsidiaries

As for Aguas de Malambo, coverage of the water supply service was 99.59%, exceeding the goal for the year, which was 97.30%. Moreover, 2,926 meters were installed.

In Aguas de Occidente, installation of water supply networks in the municipalities of San Jerónimo and Santa Fe de Antioquia is highlighted, which benefited customers in the following sectors: Pie de Cuesta, El Rincón, Espinal, Obregón, La Usa, El Noque and El Paso. Additionally, the Paga a tu medida (Pay According to Your Needs) program was implemented in the municipalities in the area of influence, with 616 customers joining the program.

Emvarias managed to access to 5,670 homes located in areas of difficult access, neighborhoods that do not have roads and, therefore, the vehicle cannot collect waste. In order to remedy this situation, the company came to an agreement with the Community Action Boards so that people from the area could collect waste door to door and transport it to a collection site defined by Emvarias; In these sites, the collection vehicles can collect and transport waste to the landfill La Pradera. Moreover, during the reporting period, the coverage of the collection and transport service was expanded in the rural area of Palmitas (La Sucia rural settlement), benefiting 60 installations.

In Urabá, 411 new customers in the neighborhood El Bosque in Turbo and 159 users in the neighborhood Guayabal in Chigorodó were reported. Financing for the Distrito Sur (Southern District) project was obtained, with an investment of COP 20.714 billion from the Ministry of Housing, City and Territory, which will increase sewerage coverage to 67.4% in the urban area and will benefit 4,774 families.

In Aguas Nacionales, the extension of the inter-administrative cooperation agreement between Empresas Públicas de Quibdó E.S.P. in liquidation and EPM, in the city of Quibdó, until December 2016 is highlighted.

Although Empresas Públicas de Oriente did not provide water supply and sewerage services in 2015, it did continue to operate the water systems in la Compañía Global de Pinturas S.A. and to monitor "maintenance runners and dam safety staff" in the facilities and infrastructure of the components of the Buey-Piedras-La Fe and La Honda-Piedras Blancas system owned by EPM. It also included, in its activities, operation of the wastewater treatment plant in El Retiro.

Challenges

Challenges		
Short-, medium-, and long-term goals	Year in which it will be achieved	Compliance indicator
EPM		
Energy service		
Construction of infrastructure in rural areas without the electricity service to enable connection of 1,400 homes to this service.	2016	Homes connected.
Connecting, through the Habitable Homes Program, 27,500 customers to the electricity service.	2016	Number of connections through Habitable Homes.
Registering 12,000 customers to the Prepayment electricity service.	2016	# customers registered/# target customers
Natural gas service		
Consolidating populations where EPM is present, managing to connect 53,468 new customers to the service.	2016	Customers connected.
Expanding coverage of the natural gas service in Antioquia, managing to construct 267 km of polyethylene network and investing approximately COP 20,760 billion.	2016	Km of network built - Investments made
Continuing to manage subsidies for connection and gas infrastructure.	2016	Subsidies obtained.

Short-, medium-, and long-term goals	Challenges	Year in which it will be achieved	Compliance indicator
EPM			
Water supply and sanitation service			
Completion of the Llanaditas project in the first half of 2016 and continuing implementing the Caldas-La Estrella Interconnection project, La Estrella expansion project, Valle San Nicolás project, and entry into operation of the water supply system in the Alto Palmas area.	2016	Compliance with activities: project delivery, designs and purchase of land and water conveyance easements; entry into operation of the water supply system in the Alto Palmas area.	
Connecting, through the Habitable Homes Program, 331 homes to the water supply service and 516 homes to the sewerage service.	2016	Homes connected to the water and sewerage service through the Habitable Homes program.	
Improving infrastructure of 1,300 homes in subnormal settlements.	2016	Impacted homes/scheduled homes.	
Registering 10,000 customers to the prepaid water service in EPM.	2016	Number of customers registered/Number of target customers.	
Creating three community water working groups in the same number of settlements.	2016	Working groups created.	
Cross cutting issues			
Registering 13,000 customers to the Paga a tu medida (Pay According to Your Needs) program.	2016	Number of active clients in the system.	
Evaluating the implementation of the Paga a tu medida (Pay According to Your Needs) program in the national energy subsidiaries.	2016	Program's approval report.	
Registering 26,000 customers to the Credit for your Home program and 261,000, to the Loyalty and Rewarding Program "Somos".	2016	Number of customers registered.	

Challenges		
Short-, medium-, and long-term goals	Year in which it will be achieved	Compliance indicator
Energy subsidiaries		
ESSA- Registering 3,500 customers to the Prepayment electricity service.	2016	Number of customers registered/Number of target customers.
ESSA- Increasing rural coverage.	2016	92.98% in rural coverage.
EDEQ- Increasing rural coverage.	2016	98.10% in rural coverage.
EDEQ - Increasing the number of users benefited from social financing to 350.	2016	Number of new cardholders.
EDEQ - Increasing the amount collected for using the card to COP 820 million.	2016	COP million in purchases using the card.
CENS- Regarding rural electrification, agreements with FAER 105, Fundescat and Ecopetrol in its second phase will be completed, complying with the budget and time schedules to provide electricity to the rural population in Norte de Santander.	2016	Number of connections.
CENS- Registering 1,200 customers to the Prepayment electricity service.	2016	Number of customers registered/Number of target customers.
CHEC- Connecting 10,526 customers regarding new services and connection projects.	2016	Number of connections.
CHEC- Connecting 1,546 customers to the service through the Habitable Homes program.	2016	Number of connections.
CHEC- Investing COP 609 million to connect customers to the service through the Habitable Homes program.	2016	% compliance with investments.
CHEC - Continuing implementing the rural electrification program to provide electricity to 75 homes.	2016	Number of electrified homes.
CHEC- Allocating COP 9.102 billion to the Credit for your home program.	2016	% compliance with budget.
Eegsa - Evaluating the implementation of the Paga a tu medida (Pay According to Your Needs) program in the national subsidiaries.	2016	Program's approval report.
Eegsa - Keeping on increasing the number of customers.	2016	A minimum of 3.7% compared to 2015.
Eegsa - Connecting 2,000 homes to the service through the rural electrification program.	2016	Number of connections.
Delsur - Building 12 rural electrification projects.	2016	Number of projects built/Number of target projects.

Challenges		
Short -, medium -, and long-term goals	Year in which it will be achieved	Compliance indicator
Water supply and sanitation subsidiaries		
Provision of drinking water to the community of Tafetanes in the municipalities of San Jerónimo and Sopetrán.	2016	Number of customers connected.
Providing solid waste collection and transport services in rural settlements in the small towns of San Sebastián de Palmitas and San Cristóbal.	2016	Sanitation service coverage.
Implementing a pilot air water supply system in Urabá to provide areas of difficult access with the service.	2016	Coverage indicator, units sold.

Related indicators

G4-EC8 Significant indirect economic impacts, including the extent of impacts.

G4-EU26 Percentage of population unserved in licensed distribution or service areas.

G4-EU27 Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.

Action: Service Coverage and Expansion

The construction of infrastructure required to expand the service coverage area corresponds to the strategic objective of "growing in customers and markets" and it is aligned with the statement of supporting and leveraging development and competitiveness of the territories where the EPM Group operates.

Management in 2015:

Almost in all national and international regions, the EPM Group has reached a near 100% coverage in the service of energy in urban areas and a large progress in rural areas, in order to guarantee access to all stakeholders in a reliable and timely way. In 2015 EPM reached a 99.5% coverage in the services of water supply and sewerage, 99.6% in energy and 70.59% in gas.

58% of customers and users of the EPM Group correspond to the services of electrical energy and gas, and 42% to water supply, sewerage and sanitation.

To December 31, 2015, the number of public utilities installations in the EPM Group increased to 10,171,314; 5,966,851 correspond to the energy service; 997,406, to gas; 1,211,067, to water supply; 1,154,339, to sewerage; and 841,651, to sanitation.

At the subsidiary company Ticsa, 1,919,529 customers are served indirectly through the operation in the ten waste water plants.

EPM finished 2015 with a total of 5,396,772 public utilities installations in energy, gas, water and sewerage. The energy subsidiary companies reached a total of 3,745,374 installations; and the water, sewerage and sanitation subsidiary companies, 1,029,168.

In EPM the energy service reached a total of 2,221,477 customers. Regarding infrastructure, in 2015 it covered 1,188 km of networks for primary distribution and 867 km of networks for secondary distribution. The gas service reached 997,406 customers and 775 km of polyethylene gas pipeline networks. The water service reached a total of 1,105,003 customers, 261 km of networks for primary distribution and 3,462 km of networks for secondary distribution; the sewerage service reached 1,072,886 customers, 360 km of networks for primary distribution and 4,166 km of networks for secondary distribution.

The power networks were built to serve new customers in EPM areas of influence such as Mutatá, Caucasia, Santa Fe de Antioquia, San Jerónimo, Ituango, Liborina, Yolombó, Malena and El Limón. The gas service finished the network. The gas service finished the network construction in 30 new populations and currently this service is provided in 108 populations in Antioquia. Moreover, the execution of projects such as Valle San Nicolás and Llanaditas aims at expanding the water supply and sewerage services to difficult-access areas.

Service Coverage - EPM Group

Service	2013	2014	2015
Energy	5,573,157	5,771,946	5,966,851
Gas	831,493	927,584	997,406
Water Supply	1,143,638	1,176,919	1,211,067
Sewerage	1,100,455	1,127,552	1,154,339
Sanitation	707,774	817,521	841,651
Total Services - EPM Group	9,356,517	9,821,522	10,171,314

Source: Vice Presidency of Corporate Finance

Energy Service Coverage - EPM Group

Sector	2013	2014	2015
Residential	5,020,488	5,203,484	5,380,830
Non-residential	552,669	568,462	586,021
Total Energy Service - EPM Group	5,573,157	5,771,946	5,966,851

Source: Vice Presidency of Corporate Finance

Water Supply Service Coverage - EPM Group			
Sector	2013	2014	2015
Residential	1,054,438	1,085,778	1,117,350
Non-residential	89,200	91,141	93,717
Water Supply Service Total - EPM Group	1,143,638	1,176,919	1,211,067

Source: Vice Presidency of Corporate Finance

Sewerage Service Coverage - EPM Group			
Sector	2013	2014	2015
Residential	1,012,722	1,038,459	1,062,922
Non-residential	87,733	89,093	91,417
Total Sewerage Service - EPM Group	1,100,455	1,127,552	1,154,339

Source: Vice Presidency of Corporate Finance

Energy Service Coverage - EPM			
Sector	2013	2014	2015
Residential	1,896,978	1,958,508	2,026,367
Non-residential	185,404	189,070	195,110
Total Energy Service - EPM	2,082,382	2,147,578	2,221,477
Total service coverage (%) compared to total population in the served territory	98.17%	99.03%	96.60%

Source: Vice Presidencies of Corporate Finance and Power Transmission and Distribution

As of 2015 customers of the non-regulated market of the national energy subsidiary companies started to be commercially managed from EPM.

Gas Service Coverage - EPM

Sector	2013	2014	2015
Residential	816,867	911,524	979,663
Non-residential	14,626	16,060	17,743
Total Gas Service - EPM	831,493	927,584	997,406
Total service coverage (%) compared to total population in the served territory	60.50%	65.10%	70.59%

Source: Vice Presidencies of Corporate Finance and Gas

To December 2015, 56,000 vehicles were estimated to start using vehicular natural gas (VNG), which may represent around 9% of the total number of cars of the metropolitan area. 68 VNG stations are in operation, 16 of them owned by EPM.

Water Supply Service Coverage - EPM

Sector	2013	2014	2015
Residential	966,203	991,860	1,018,413
Non-residential	82,655	84,355	86,590
Total Water Supply Service - EPM	1,048,858	1,076,215	1,105,003
Total service coverage (%) compared to Land-Use Planning	99.50%	99.50%	99.50%

Source: Vice Presidencies of Corporate Finance and Water and Sanitation

Sewerage Service Coverage - EPM

Sector	2013	2014	2015
Residential	945,715	967,159	987,277
Non-residential	82,328	83,431	85,609
Total Sewerage Service - EPM	1,028,043	1,050,590	1,072,886
Total service coverage (%) compared to Land-Use Planning	99.50%	99.50%	99.50%

Source: Vice Presidencies of Corporate Finance and Water and Sanitation

The EPM water supply and sewerage coverage was calculated based on the network availability. In the municipality of Medellín and in coordination with EPM, through the Unidos por el Agua (United for the Water) Program, between 2016 and 2019 the access to the service will be improved and, therefore, so will the coverage indicator. This program includes initiatives such as: infrastructure projects in non-covered areas and formalization of public utilities and public power stacks.

Energy Service Coverage - EPM Group Subsidiaries

Company / Sector	2013	2014	2015
CHEC			
Residential	395,624	404,659	414,626
Non-residential	40,546	41,972	43,366
Total customers	436,170	446,631	457,992
ESSA			
Residential	596,316	630,118	652,341
Non-residential	70,953	74,788	76,693
Total customers	667,269	704,906	729,034
CENS			
Residential	385,924	401,240	417,117
Non-residential	35,393	36,006	36,816
Total customers	421,317	437,246	453,933
EDEQ			
Residential	146,251	149,854	154,140
Non-residential	18,301	18,694	19,231
Total customers	164,552	168,548	173,371

Source: Vice Presidency of Corporate Finance

► Energy Service Coverage - EPM Group Subsidiaries

Company / Sector	2013	2014	2015
Delsur			
Residential	326,636	334,232	341,220
Non-residential	25,303	26,533	28,596
Total customers	351,939	360,765	369,816
Eegsa			
Residential	921,453	959,645	996,843
Non-residential	144,610	147,871	151,157
Total customers	1,066,063	1,107,516	1,148,000
ENSA			
Residential	351,306	365,228	378,176
Non-residential	32,159	33,528	35,052
Total customers	383,465	398,756	413,228

Source: Vice Presidency of Corporate Finance

► Water Supply and Sewerage Service Coverage - EPM Group Subsidiaries

Company / Sector	Water Supply			Sewerage		
	2013	2014	2015	2013	2014	2015
Aguas del Oriente						
Residential	3,374	3,601	3,928	3,573	3,595	4,103
Non-residential	422	462	473	366	461	382
Total customers	3,796	4,063	4,401	3,939	4,056	4,485
Aguas de Occidente						
Residential	12,709	13,490	14,367	9,629	10,302	11,078
Non-residential	1,189	1,274	1,363	952	1,024	1,040
Total customers	13,898	14,764	15,730	10,581	11,326	12,118
Aguas de Urabá						
Residential	52,212	55,829	59,199	37,923	40,683	43,280
Non-residential	4,703	4,804	5,033	3,906	3,989	4,180
Total customers	56,915	60,633	64,232	41,829	44,672	47,460
Aguas de Malambo						
Residential	19,940	20,998	21,443	15,882	16,720	17,184
Non-residential	231	246	258	181	188	206
Total customers	20,171	21,244	21,701	16,063	16,908	17,390

Source: Vice Presidency of Corporate Finance

Sanitation Service Coverage

Company / Sector	2013	2014	2015
Emvarias			
Residential	664,900	754,161	773,392
Non-residential	42,874	63,360	68,259
Total customers	707,774	817,521	841,651

Source: Vice Presidency of Corporate Finance

Energy Network Expansion - EPM Group

Company / Indicator	2013	2014	2015
CHEC			
Total networks for primary distribution (km)	8.6	27	30
Total networks for secondary distribution (km)	12.4	24.6	38
ESSA			
Total networks for primary distribution (km)	18	18.6	19
Total networks for secondary distribution (km)	27.5	28.9	30
CENS			
Total networks for primary distribution (km)	12.3	10.6	12
Total networks for secondary distribution (km)	15.7	22.4	24
EDEQ			
Total networks for primary distribution (km)	17.5	5.9	6
Total networks for secondary distribution (km)	31.0	26.0	11
EPM			
Total networks for primary distribution (km)	3,879	2,790	1,188
Total networks for secondary distribution (km)	1,565	1,019	867
Delsur			
Total networks for primary distribution (km)	N.D.	79	91
Total networks for secondary distribution (km)	N.D.	19	7
Eegsa			
Total networks for primary distribution (km)	N.D.	129	135
Total networks for secondary distribution (km)	N.D.	213	180
ENSA			
Total networks for primary distribution (km)	N.D.	295	476
Total networks for secondary distribution (km)	N.D.	206	300

Source: Vice Presidency of Power Transmission and Distribution

Gas Service Expansion - EPM

Indicator	2013	2014	2015
Steel artery (km)	87	87	87
Polyethylene networks built in the year (km)	690	724	775
Total polyethylene networks (Km)	5,618	6,342	7,152

Source: Vice Presidency of Gas

Water Supply and Sewerage Network Expansion - EPM Group in Colombia

Company / Sector	Water Supply			Sewerage		
	2013	2014	2015	2013	2014	2015
Aguas del Oriente						
Total networks for primary distribution (km)	2	2	2	16	16	16
Total networks for secondary distribution (km)	27	27	29	4	4	4
Aguas de Occidente						
Total networks for primary distribution (km)	26	28	36	11	11	11
Total networks for secondary distribution (km)	149	154	158	44	44	52
Aguas de Urabá						
Total networks for primary distribution (km)	35	37	37	67	67	67
Total networks for secondary distribution (km)	398	433	427	314	318	319
Aguas de Malambo						
Total networks for primary distribution (km)	10	10	10	32	32	32
Total networks for secondary distribution (km)	166	166	166	84	84	84
EPM						
Total networks for primary distribution (km)	263	263	261	358	357	360
Total networks for secondary distribution (km)	3,418	3,406	3,462	4,115	4,115	4,166

Source: Vice Presidency of Water and Sanitation

The water supply and sewerage coverage was calculated based on the water supply and sewerage network availability.

Gas coverage data presented in past years were modified to be consistent with the calculation methodology suggested by the Colombian Ministry of Mines, in which the number of houses having access to the network and the number of houses available in Antioquia according to QANE (National Administrative Department of Statistics of Colombia) are used.

Related indicators

G4-EU26 Percentage of unserved population in areas with distribution license.

G4-EC8 Significant indirect impacts, including the extent of impacts.

EPM-14 Solutions for unserved homes.

Action: Rural electrification

The Rural Electrification Program is developed within every EPM group's national company in order to take energy service coverage to rural areas. It operates under this name or under the names: Antioquia Iluminada (Antioquia Illuminated); CHEC Ilumina el Campo (CHEC Illuminates the Countryside); Iluminemos Santander (Let's Illuminate Santander). Investments are made with own resources and the participation of public and private institutions.

At EPM, the Program covers the network extension of the overall energy use, which is assumed by the company; and the construction of connection pipes and internal installations, which is assumed by the customer, with financing plans offered by EPM at rates lower

Management in 2015

EPM group's Rural Electrification Programs are achieving equal access to basic electricity service in the territories where it operates by trying to close the existing infrastructure gaps between the urban and rural areas of each country, thus incorporating their beneficiaries to the market, the consumption, and the development and achieving social inclusion aiming at reducing poverty.

In 2015, EPM group connected 14,922 homes to the energy service through the Rural Electrification Program, with a direct impact on 61,471 people and its own investment of COP 67,993 million.

EPM's Rural Electrification Program is one of the most significant examples of social innovation since it has helped to improve community's quality of life and has increased inclusion and equity opportunities, considering that a large area of Antioquia's territory has geographical difficulties due to its great mountains. Since its creation, the Program has connected a total of 104,047 homes. In 2015, it connected 5,778 homes, with an impact on 23,112 people and an investment of COP 34,033 million.

Connection performance achieved through the different programs stands out in national energy subsidiaries. In ESSA, the "Iluminemos Santander (Let's Illuminate Santander)" program exceeds the goal set for 2015 of bringing electricity to 3,791 families with rural coverage of 91.84%, thus achieving the electrification of 4,392 rural homes that did not have access to this service. In CENS, access to electricity was provided to schools and vulnerable population in the countryside, impacting on 14,620 people with 3,655 connections performed and an infrastructure investment of COP 3,508 million. In EDEQ, 10.7 km of network for primary distribution and 2.8 km of network for secondary distribution were built in order to enable 20 new connections, including 7 in the municipality of Salento and 13 in the city of

Cordoba. In CHEC, access to electricity was provided to 166 rural homes in the departments of Caldas and Risaralda; during its execution phase, between 2012 and 2015, a total of 4,052 homes were electrified, thus improving the rural energy service coverage.

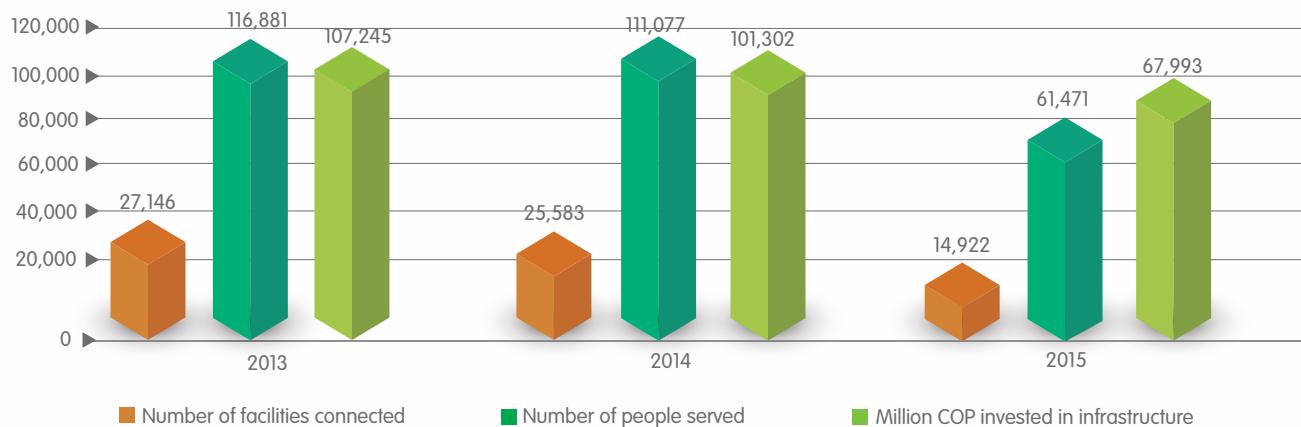
EPM group's Central American subsidiaries performed 912 rural connections, directly benefiting 5,296 people and increasing rural coverage. Many of these projects have been carried out with the support of municipalities and government bodies. In Eegsa, 517 homes were connected, while in Delsur 261 were connected, and in ENSA, 134. Eegsa connections were executed in conjunction with municipal governments and the National Investment Fund in Electricity and Telephony (Finet).

EPM Group's Rural electrification

Item / Indicator	2013	2014	2015
Number of facilities connected	27,146	25,583	14,922
Number of people served	116,881	111,077	61,471
Million COP invested in infrastructure	107,245	101,302	67,993
Million COP funded	18,594	13,638	24,664
Actual annual savings from customers (million COP) vs. Financial system	1,390	986	698
Total annual savings from customers (million COP) vs. Financial system	13,904	9,863	5,187

Source: Vice Presidency of Power Transmission and Distribution

EPM Group's Rural electrification



Source: Vice Presidency of Power Transmission and Distribution

The decrease in 2015, compared to previous years, mainly occurs because EPM has already a electricity service coverage of 99.6% in the department of Antioquia and because the CHEC Illuminates the Countryside II project was completed by CHEC in February 2015.

EPM Group's Rural electrification

Item / Indicator	2013	2014	2015
Number of facilities connected	19,925	15,053	5,778
Number of people served	85,279	64,427	23,112
Million COP invested in infrastructure	77,589	65,817	34,033
Million COP funded	14,999	9,637	4,193
Actual annual savings from customers (million COP) vs. Financial system	1,390	986	448
Total annual savings from customers (million COP) vs. Financial system	13,904	9,863	2,687

Source: Vice Presidency of Power Transmission and Distribution

The coverage of the electricity service in EPM is 99.6% in Antioquia, thus the number of installations connected has been declining.

Rural electrification in EPM's subsidiaries

Company / Sector	2013	2014	2015
CHEC			
Number of facilities connected	1,546	1,021	166
Number of people served	7,730	5,120	830
Million COP invested in infrastructure	6,040	4,292	791
Million COP funded	387	242	84
ESSA			
Number of facilities connected	4,011	4,434	4,392
Number of people served	16,044	17,736	17,568
Million COP invested in infrastructure	19,720	26,363	26,396
Million COP funded	3,208	3,759	3,727
CENS			
Number of facilities connected	468	2,103	3,655
Number of people served	1,872	8,284	14,620
Million COP invested in infrastructure	3,707	4,400	3,508
Million COP funded	N.D.	N.D.	16,650
EDEQ			
Number of facilities connected	24	4	19
Number of people served	96	20	45
Million COP invested in infrastructure	189	96	314

Source: Vice Presidency of Power Transmission and Distribution

CHEC figures correspond to the execution of the project "CHEC Illuminates the Countryside II" (CIC2). The execution phase was conducted from 2012 to 2015. The comparative decrease in 2015 is cleared up because the project was completed in February 2015.

Rural electrification in EPM's subsidiaries

Company / Sector	2013	2014	2015
Delsur			
Number of facilities connected	N.D.	630	261
Number of people served	N.D.	3,800	2,175
Million COP invested in infrastructure	N.D.	334	315
Eegsa			
Number of facilities connected	1,172	2,338	517
Number of people served	5,860	11,690	2,585
Million COP invested in infrastructure	N.D.	N.D.	107
ENSA			
Number of facilities connected	N.D.	N.D.	134
Number of people served	N.D.	N.D.	536
Million COP invested in infrastructure	N.D.	N.D.	2,529

Source: Vice Presidency of Power Transmission and Distribution

Eegsa figures from 2013 and 2014 include rural electrification and improvement in urban homes; in 2015 only rural electrification is reported.

Related indicators

G4-EC8 Significant indirect impacts, including the extent of impacts.

Action: Energy for the Return

With the Energy for the Return program, EPM facilitates conditions for access to the electric power service for the population displaced by the armed conflict. It promotes the return to the lands by means of total debt forgiveness on consumption by unauthorized third-parties during the displacement. In case there was consumption by the family before being displacement, financing is offered for a term of up to 120 months (10 years), no down payment or interests. When necessary, the existing electric network is rebuilt, replaced or improved, and new networks are built in order to provide the users who settled in the region with the service.

In its continuous social management work, aimed at facilitating the access to the electric power service for the population displaced by the armed conflict, EPM heeded the call of some rural populations in the municipalities of Argelia, Granada, Nariño, San Carlos, San Francisco, San Rafael, Abejorral, El Carmen de Viboral, Cocorná, San Luis, Alejandría, Sonsón and San Vicente. In total, 158 installations were connected, which represented an increase of 66 installations compared to 2014, and 675 people were benefited. The investment was COP 1,027 million.

Management in 2015

Thanks to the EPM's Energy for the Return program, the service of 158 installations in Eastern Antioquia was restored.

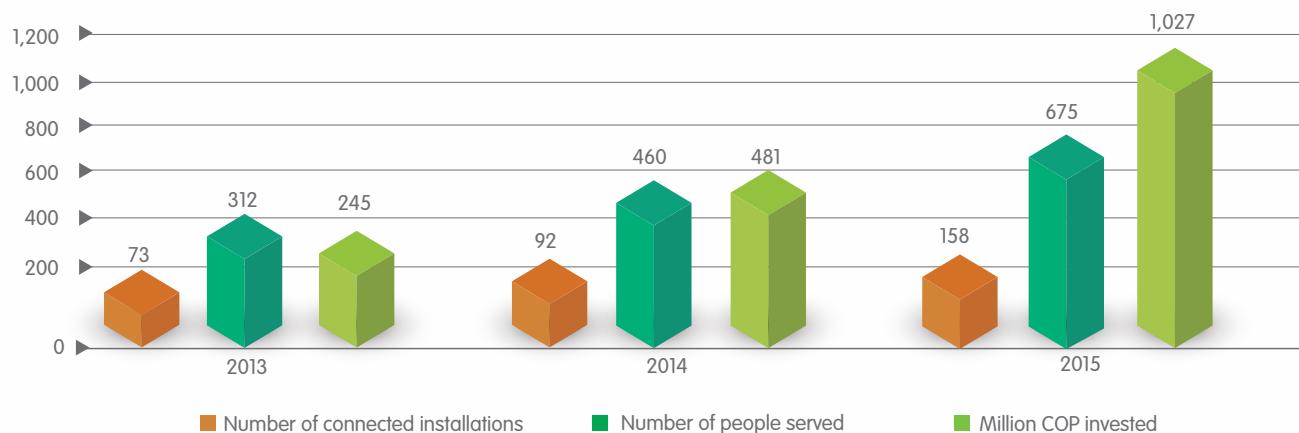
EPM Energy for the return

Item / Indicator	2013	2014	2015
Number of connected installations	73	92	158
Number of people served	312	460	675
Investment in COP millions	245	481	1,027

Source: Vice Presidency of Power Transmission and Distribution

The increase in the execution in 2015 resulted from widening the intervention to a greater number of rural populations and municipalities. At the beginning, the works were focused on 5 municipalities and during the execution in 2015 it was performed in a total of 13.

Energy for the Return EPM



Related indicators

G4-EC8 Significant indirect impacts, including the extent of impacts.

Action: Accounts receivable and default financing

The accounts receivable financing service aims at regularizing defaulting customers by means of financing payable items at low interest rates in the long term.

Customers delay the payment of the bills and, due to regulations and system fairness, their services are disconnected until they regularize their situation. Once the customer has paid or has made a payment agreement, the service is reconnected within 24 business hours. Default is more likely to appear in low-income populations (socio-economic strata 1, 2 and 3) with safety problems, due to structural issues of the country.

Management in 2015

It is emphasized that, for the Accounts receivable and portfolio management process, customers and users are comprehensively managed and the commercial offers are focused in accordance with the services they already have.

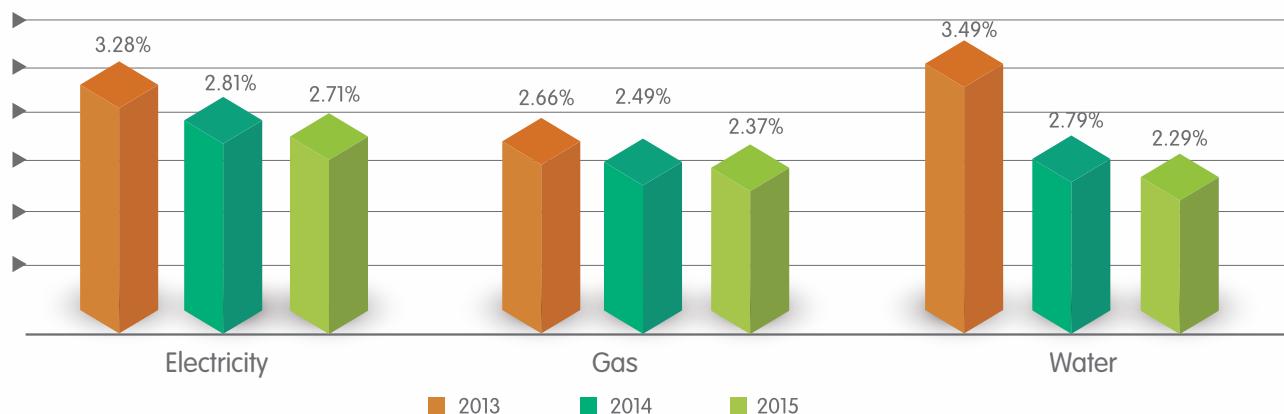
In 2015, the accounts receivable and portfolio management process was homologated withing the Group, focusing efforts on understanding our customer's issues and looking for effective solutions.

Outstanding achievements were made with the national subsidiary companies, such as: closing the gap between the processes, which allowed the creation of business rules in the Accounts receivable process and financing for each customer segment; thus managing to standardize the requirement matrix and creating a standard form for the promissory notes, payment agreements and letters of instruction. A portfolio management strategy proposal was prepared, joining the best practices of national companies. The way to export and display the indicators information in the Balanced Scorecard was validated and homologated. The contracting process was started with the joint purchase model of the preemptive and out-of-court collection activities. Besides, the out-of-court management module of the collection software was launched, enabling the display of the log of contacts with customers and users and the service.

Default: in 2015, default treatment offers and programs were strengthened, as well as the collection management strategies (either preemptive or out-of-court). They focus on avoiding damaging our customers' portfolio; and, for those who are in this situation for any reason whatsoever, offering them alternatives that tend to regularize their service. During 2015, the intelligent operation model was redefined. It aims at keeping as many customers enjoying our services as possible, bearing in mind variables different than only the overdue bills to issue disconnection orders.

Account financing: since the effective date of the new Financing Decree (2060), on February 6th, 2015, the conditions for the customers to access this tool - to regularize their debt before having the service disconnected due to default - became more flexible. This is done by means of financing overdue items at low interest rates in the long term that can be customized to the needs of each one of our customers. Since the issuance of the Decree, the homologation of the business rules for financings was achieved with the subsidiary companies, for each one of their customer segments, in order to keep the service active.

Default percentage - EPM



The default percentage for electric power, gas and water services has significantly decreased in previous years. These results have a positive impact due to the increased effectiveness of early default collection strategies, which have shown an improvement in active and connected customer loyalty. They were supported by the new Financing Decree (2060), on February 2015, by which the conditions for the customers to access this tool - to regularize their debt before having the service disconnected due to default - became more flexible. This is done by means of financing overdue items

at low interest rates in the long term that can be customized to the needs of each one of our customers. All of this adds to the commercial offers that support default treatment, such as Prepaid Water, Prepaid Electricity, Paga a tu Medida (Pay According to your Needs), special conditions for the Habitable Homes Program, loan programs, force majeure insurance, incentives for good payment behavior ("Somos" program) and cultural and educational projects.

Summary of the default percentage of electricity companies of EPM Group

Company	2013	2014	2015
CHEC	0.24%	0.30%	0.28%
ESSA	4.86%	4.73%	4.86%
CENS	3.69%	3.65%	3.72%
EDEQ	1.67%	2%	1.59%
Delsur	0%	0.90%	1.09%
Eegsa	0.51%	0.49%	0.47%
ENSA	1.60%	1.40%	1.90%
EPM	3.28%	2.81%	2.71%

Source: Vice Presidency of Corporate Finance

In general, the default percentage in the electric power service was stable during 2015, compared to 2014. Some areas in the country were identified as having special problems. For example, Norte de Santander has suffered a negative impact due to the

border and situation with Venezuela. Likewise, work has been done to identify early signs that allow for preemptive actions in order to have the customers keep enjoying the service.

Summary of the default percentage of water companies of EPM Group

Company	2013	2014	2015
Aguas de Occidente	2.35%	2.68%	2.68%
Aguas del Oriente	0.66%	0.54%	0.94%
Aguas de Urabá	9.78%	10.30%	8.81%
Aguas de Malambo	3.73%	2.42%	9.87%
Emvarias	N.D.	2.02%	8.86%
Ticsa	0%	0%	0%
EPM	3.49%	2.79%	2.29%

Source: Vice-Presidency of Corporate Finance

In 2015, the default percentage for the water service showed a significant improvement for the companies Aguas de Urabá and EPM, due to the directed management so that active or connected customers continue to be so and so that they did not default. The subsidiary company, Aguas de Malambo, has shown an important increase in the percentage of disconnected customers, due to the intervention of services that reported connection issues. Emvarias shows a peculiar behavior, since the customers are still enjoying the service —it has not been suspended or disconnected although the associated service (electricity, gas or water) is.

Defaulting in Electricity Services - EPM Group

Company / Indicator	2013	2014	2015
CHEC			
Socio-economic stratum 1	217	360	385
Socio-economic stratum 2	322	444	377
Socio-economic stratum 3	224	219	198
Socio-economic stratum 4	61	55	48
Socio-economic stratum 5	9	11	6
Socio-economic stratum 6	10	12	9
Residential total	843	1,101	1,023
Non residential	217	243	252
Total	1,060	1,344	1,275
Total residential and non residential services	436,170	446,631	457,992
Default %	0.24%	0.30%	0.28%
ESSA			
Socio-economic stratum 1	13,061	13,742	14,786
Socio-economic stratum 2	11,666	11,658	11,951
Socio-economic stratum 3	2,395	2,475	2,744
Socio-economic stratum 4	814	762	919
Socio-economic stratum 5	96	90	110
Socio-economic stratum 6	67	83	70
Residential total	28,099	28,810	30,580
Non residential	4,305	4,499	4,831
Total	32,404	33,309	35,411
Total residential and non residential services	667,269	704,906	729,034
Default %	4.86%	4.73%	4.86%

Defaulting in Electricity Services - EPM Group

Company / Indicator	2013	2014	2015
CENS			
Socio-economic stratum 1	5,036	5,306	6,099
Socio-economic stratum 2	7,058	6,869	7,108
Socio-economic stratum 3	1,449	1,566	1,587
Socio-economic stratum 4	285	300	289
Socio-economic stratum 5	30	34	34
Socio-economic stratum 6	3	3	6
Residential total	13,861	14,078	15,123
Non residential	1,684	1,880	1,780
Total	15,545	15,958	16,903
Total residential and non residential services	421,317	437,246	453,948
Default %	3.69%	3.65%	3.72%
EDEQ			
Socio-economic stratum 1	785	700	776
Socio-economic stratum 2	609	553	535
Socio-economic stratum 3	332	301	318
Socio-economic stratum 4	73	73	100
Socio-economic stratum 5	53	55	59
Socio-economic stratum 6	9	13	12
Residential total	1,861	1,695	1,800
Non residential	902	928	951
Total	2,763	2,623	2,751
Total residential and non residential services	165,743	169,522	173,371
Default %	1.67%	1.5%	1.6%

Defaulting in Electricity Services - EPM Group

Company / Indicator	2013	2014	2015
EPM			
Socio-economic stratum 1	30,173	28,323	30,058
Socio-economic stratum 2	18,420	14,893	14,062
Socio-economic stratum 3	8,303	6,917	6,229
Socio-economic stratum 4	1,619	1,368	1,219
Socio-economic stratum 5	726	637	530
Socio-economic stratum 6	293	355	245
Residential total	59,534	52,493	52,343
Non residential	8,779	7,853	7,883
Total	68,313	60,346	60,226
Total residential and non residential services	2,082,382	2,146,409	2,220,055
Default %	3.28%	3%	3%
Delsur			
Residential total		2,833	3,431
Non residential		884	1,160
Total		3,717	4,591
Default %		0.90%	1.09%
Eegsa			
Residential total	189,032	178,248	198,849
Non residential	27,151	25,699	26,555
Total	216,183	203,947	225,404
Default %	16.74%	15.04%	16%

Defaulting in Electricity Services - EPM Group

Empresa / Indicador	2013	2014	2015
ENSA			
Residential total	668	876	814
Non residential	428	421	517
Total	1,096	1,297	1,331
Default %	1.60%	1.40%	2%

Source: Vice Presidency of Corporate Finances

CHEC: there was a decrease in the number of suspended services for this year, thanks to the out-of-court management performed at each area, bad debt write-off and the strategy of keep visiting the customers at home to let them know the suspension date, and thus avoid reconnection charges.

ESSA: the reported data correspond to customers with accounts receivable aging exceeding 7 months, whose service is deemed suspended. Ten customers with CCU Termination have been included and the due process was followed. The invoice clerk doesn't currently have a report providing a list of customers classified by supply status, since their status changes day by day.

CENS: a 2% increase in default is observed, compared to 2014, mainly boosted by the residential sector of socio-economic strata 1 and 2, which represented a 14.9 and 3.5% respectively. It is emphasized that the latter represent 79.1% of the amount of clients with overdue residential portfolio, which has been worked on by sending letters, accounts receivable squads and suspensions.

EDEQ: in general, the increase in (suspended and disconnected) defaulters was 128; out of which 105 correspond to residential users and 23 to the non-residential sector. Users are visited by a social worker who guides them in order to avoid the service suspension and definite disconnection. At the same time, they could receive persuasive collection letters and financings.

Delsur: the country's economic situation and the unemployment level has led to an increase in defaulters, as opposed to the decrease in the accounts receivable total.

Water supply defaulting - EPM Group

Company / Indicator	2013	2014	2015
Aguas de Occidente			
Socio-economic stratum 1	43	54	60
Socio-economic stratum 2	91	128	125
Socio-economic stratum 3	42	49	37
Socio-economic stratum 4	29	55	56
Socio-economic stratum 5	9	14	10
Socio-economic stratum 6	4	4	5
Residential total	218	304	293
Non residential	109	92	128
Total	327	396	421
Total residential and non residential services	13,898	14,764	15,730
Default %	2.35%	2.68%	2.68%
Aguas del Oriente			
Socio-economic stratum 1	0	0	7
Socio-economic stratum 2	3	2	3
Socio-economic stratum 3	9	7	18
Socio-economic stratum 4	1	0	1
Socio-economic stratum 5	5	6	4
Residential total	18	15	33
Non residential	7	7	9
Total	25	22	42
Total residential and non residential services	3,796	4,063	4,485
Default %	0.66%	0.54%	0.94%

Water supply defaulting - EPM Group

Company / Indicator	2013	2014	2015
Aguas de Urabá			
Socio-economic stratum 1	2,778	3,060	2,801
Socio-economic stratum 2	1,638	1,913	1,668
Socio-economic stratum 3	501	577	538
Socio-economic stratum 4	64	67	68
Residential total	4,981	5,617	5,075
Non residential	585	626	581
Total	5,566	6,243	5,656
Total residential and non residential services	56,915	60,633	64,232
Default %	9.78%	10.30%	8.81%
Aguas de Malambo			
Socio-economic stratum 1	353	232	1,144
Socio-economic stratum 2	397	218	891
Socio-economic stratum 3	47	35	83
Residential total	797	485	2,118
Non residential	35	32	36
Total	832	517	2,154
Total residential and non residential services	22,325	21,343	21,823
Default %	3.73%	2%	9.9%

Water supply defaulting - EPM Group

Company / Indicator	2013	2014	2015
Emvarias			
Socio-economic stratum 1	N.D.	8,363	28,270
Socio-economic stratum 2	N.D.	5,486	26,549
Socio-economic stratum 3	N.D.	1,133	9,462
Socio-economic stratum 4	N.D.	195	1,709
Socio-economic stratum 5	N.D.	75	997
Socio-economic stratum 6	N.D.	22	518
Residential total	N.D.	15,274	67,505
Non residential	N.D.	1,249	7,057
Total	N.D.	16,523	74,562
Total residential and non residential services	N.D.	817,379	841,651
Default %	N.D.	2.02%	8.86%
EPM			
Socio-economic stratum 1	8,373	6,908	6,062
Socio-economic stratum 2	14,746	11,876	9,401
Socio-economic stratum 3	7,541	6,108	4,911
Socio-economic stratum 4	1,149	977	845
Socio-economic stratum 5	641	513	421
Socio-economic stratum 6	242	251	213
Residential total	32,692	26,633	21,853
Non residential	3,868	3,425	3,453
Total	36,560	30,058	25,306
Total residential and non residential services	1,048,858	1,076,215	1,105,003
Default %	3.49%	2.79%	2.29%

Source: Vice Presidency of Corporate Finances

The number of total services includes installations with active services, as well as those with suspended or disconnected services.

Aguas de Occidente: the indicators of suspended and disconnected services have remained consistent with the general increase in the number of customers. The indicators are below general EPM indicators, which indicates good portfolio management.

Aguas de Oriente: in 2015, the number of installations grew by 8% for the water and sewerage, which is mainly explained by the increase in the construction of social housing. It was observed that the population who was going to receive the houses left unpaid utility bills in the rented housing, thus negatively affecting the indicator.

Aguas de Urabá: the general increase in defaulters is less than the general increase in the total number of customers. However, an important gap is still

observed between the subsidiary company's indicators and those of EPM. In order to close the gap, a deeper segmentation of the collection strategies is being performed, specifically with those customers with little account aging at high risk. At the same time, the on-site suspension and disconnection operations are speeding up in order to improve the indicator in the medium and long term.

Aguas de Malambo: during 2015, suspension operations increased as a strategy to collect accounts receivable and to comply with the due process. These actions allowed for an increase in collection.

Emvarias: due to the nature of the service it provides, suspensions or disconnections are not performed. The method to calculate the indicator is linked to the behavior of the service associated to the housing (electric power, gas or water).

EPM account financing summary

Company / Indicator	2013	2014	2015
Financed customers	83,172	82,217	108,122
Financed COP millions	43,750	50,843	38,025
Savings compared to the financial system (COP millions)	8,144	8,913	2,562

Source: Commercial Vice-Presidency

Since the effective date of the new financing decree, in February 2015, there was a substantial increase in the number of debt financings, from 82,217 to 108,122. This resulted in a 31.5% change, explained by the Decree, which enables the customers to use this financing tool before their service is suspended. Thus an increase in the number of financings was generated, but the financed items amount to less each.

Account financing - EPM Group subsidiary water companies

Company / Indicator	2013	2014	2015
CHEC			
Financed customers	30,958	21,736	12,883
Financed COP millions	3,029	2,526	2,436
Savings compared to the financial system (COP millions)	N.D.	84	83
ESSA			
Financed customers	10,205	8,827	9,563
Financed COP millions	8,162	6,865	6,091
Savings compared to the financial system (COP millions)	2,853	1,770	1,099
CENS			
Financed customers	19,172	15,741	16,215
Financed COP millions	14,315	14,548	15,984
Savings compared to the financial system (COP millions)	2,766	2,914	2,468
EDEQ			
Financed customers	21,917	19,939	10,365
Financed COP millions	2,453	3,063	2,874
Savings compared to the financial system (COP millions)	360	541	638
Delsur			
Financed customers	2,858	2,432	1,971
Financed COP millions	3,884	4,414	3,274
Eegsa			
Financed customers	1,052	642	443
Financed COP millions	1,541	1,148	1,404

Account financing - EPM Group subsidiary water companies

Company / Indicator	2013	2014	2015
ENSA			
Financed customers	4,696	4,129	4,451
Financed COP millions	3,011	3,571	3,656
Savings compared to the financial system (COP millions)	420	500	420

Source: Vice-Presidency of Corporate Finance

CHEC: the decrease shown in 2015 is due to the accounts receivable write-off by the on-site actions and the strategy of visiting customers before the disconnection.

ESSA: we have a strategic ally for accounts receivable collection: Applus. In 2013 and 2015 they joined us to strengthen Pacto financing program. This is observed in the number of served customers.

CENS: a 9.9% increase is observed in the financed amounts, mainly due to the actions performed on "non-residential" services, which represent 55% of the total financed COP millions. Among others, financings were specially noticeable in: Municipality of Sardinata, the Cultural Arts Center in Villa del Rosario, Municipality of Cachira and the Municipality of Gamarra, amounting to COP 1,096 million.

EDEQ: when comparing the number of financings in 2015 to 2014, a decrease of 1,202 is found and its corresponding amount in pesos is observable. When looking over the monthly behavior, it is found that in 10 out of the 12 months of the year, financings went down and, at the same time, the current receivables increased. In 5 months, accounts receivable aging 1 - 30 days showed a slight increase.

Regarding the current receivables, the increase resulted from the cycle calibration performed by the billing process, adjusting them from 25 to 23. Besides, for several cycles with most users and more significant billing, they are past due in the first week of the following month.

Regarding accounts receivable aging 1 - 30 days, the increase is seen because some users have started to get used to pay the second overdue bill. The reason is that the number of visits assigned to perform the disconnections does not enable us to reach all the population that could be subject to disconnection.

Delsur: it corresponds to the total number of financings offered to customers for many reasons, as well as the total financed amount. The applied interest rate is regulated.

Eegsa: the decreases are caused by allowing for partial payments (leaving only that month's bill unpaid) than payment agreements. The information source is the control report for the electricity payment agreements. Regarding savings, Eegsa has the policy of not charging interest on payment agreements because of which they stop paying even the default interest of the commercial system. In order to calculate the savings, the active interest rate is taken from Banco de Guatemala for that year. The amounts will be measured in quetzales. The average of financed amounts is high because most of the small debt amounts are collected with partial payments (i.e. the customer pays the overdue part and is left with the unpaid debt). The highest amounts are harder to be paid, more likely to be subject to payment agreements and —although to a lesser degree— they rise the average.

Account financing - EPM Group subsidiary water companies

Company / Indicator	2013	2014	2015
Aguas de Occidente			
Financed customers	528	105	180
Financed COP millions	113	25	38
Savings compared to the financial system (COP millions)	N.D.	4	2
Aguas del Oriente			
Financed customers	N.D.	105	357
Financed COP millions	N.D.	25	77
Savings compared to the financial system (COP millions)	N.D.	4	3
Aguas de Urabá			
Financed customers	N.D.	4,876	8,495
Financed COP millions	N.D.	1,311	2,164
Savings compared to the financial system (COP millions)	N.D.	231	142
Aguas de Malambo			
Financed customers	2,161	3,763	6,923
Financed COP millions	625	1,720	2,857
Savings compared to the financial system (COP millions)	195	867	937
Emvarias			
Financed customers	N.D.	8,493	23,548
Financed COP millions	N.D.	291	505
Savings compared to the financial system (COP millions)	N.D.	51	33
Ticsa			
Financed COP millions	3,011	3,571	3,656
Savings compared to the financial system (COP millions)	420	500	420

Source: Vice-Presidency of Corporate Finance

Aguas de Occidente: the volume of financed customers increases dramatically compared to the total of general customers. That shows that the financing strategy has become an important tool in accounts receivable collection. 23% of the total receivable accounts of the subsidiary company corresponds to financed receivables.

Aguas de Urabá: the volume percent of financed customers increases substantially. However, it does not indicate damage to the accounts receivable. By means of financing, an important volume of accounts receivable has been collected, instead of taking disconnection actions. Currently, 45% of the total receivable accounts of the subsidiary company corresponds to financings.

Aguas de Malambo: the increase in 2015 resulted from the continuation of the program Descuenta a tu Cuenta (Deduct from your bill) for debt financing, to which 3,579 users subscribed. The mini-meters installation plan was also implemented, financing the equipment for 2,767 users.

Emvarias: financings for Emvarias are a residual operation from financing the associated service (electric power, gas or water). The increase in the number of financed customers allows for the collection of accounts receivable mainly composed of small amounts—something not possible through court collection, because of the cost-efficiency.

Related indicators

G4-EC8 Substantial indirect impact, including their scope.

G4-EU27 Number of disconnections due to non-payment, broken down by disconnection time and regulatory system.

Action: Gas without borders

EPM program Gas without borders takes the natural gas service network to the municipalities in Antioquia located outside Medellín's metropolitan area, through the transportation of compressed natural gas. From pressure reducing stations, the gas is distributed through the networks to homes, commercial establishments and consumption places.

Management in 2015

In 2015, EPM took the natural gas service to 19 new villages. Besides, it finished the construction of the infrastructure in other 11 towns, reaching a total of 117,125 customers in the regulated market connected in 108 towns in Antioquia, reaching 14% of the total customers in the regulated market of natural gas (846,629).

Gas without borders currently serves 94 villages outside Valle de Aburra, 30 of them since 2015: Angelópolis, Belmira, Caracolí, Caramanta, Carolina, Concepción, Dabeiba, El Salto (Gómez Plata), Gómez Plata, Guadalupe, La Merced (Liborina), Maceo, Montebello, Mutatá, Pueblorrico, San Andrés de Cuerquia, San Diego (Liborina), San José de la Montaña, San Luis, San Pedro de Urabá, San Roque, San Vicente, Santo Domingo, Támesis, Tarso, Titiribí, Toledo, Valparaíso, Venecia and Yolombó.

The total number of customers connected to the system outside Valle de Aburra is 152,050 in the regulated market. The consumption during that year amounted to 52 million of m³ and the revenues represent 10% of the total gas revenue.

Gas without borders project is supported by a 2,535 km polyethylene pipeline, 659 km of which were built in 2015. It represents an investment over COP 140,000 million.

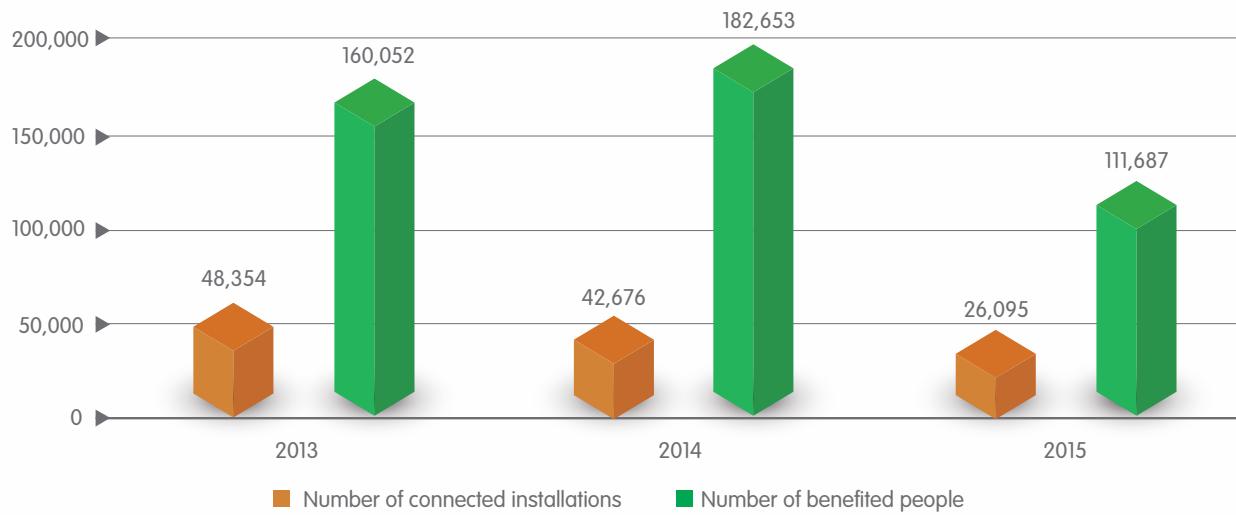
Gas without borders EPM

Item / Indicator	2013	2014	2015
Number of installations connected	48,354	42,676	26,095
Number of people served	160,052	182,653	111,687
Number of subsidized installations connected	14,855	13,796	1,632
Number of people benefited from the subsidy	49,170	240,361	7,833
Million COP invested	51,739	46,283	35,671

Source: Vice Presidency of Gas

The number of installations connected in 2015 decreased compared to the previous year, due to the fact that the installations expected for 2015 were made ahead of schedule, in 2014. 2015 was devoted to infrastructure construction

Gas without borders EPM



Source: Vice Presidency of Gas

Related indicators

G4-EC8 Significant indirect impacts, including their scope.

Action: Dignifying Homes

The Dignifying Homes Program is a social commitment by the EPM Group to fund the basic infrastructure of the energy, gas and water services for the most vulnerable homes, seeking to improve their conditions. It started in the 60s and is one of the programs with the higher coverage rates. Currently, it is developed for all services: water, sewage, energy and gas. Dignifying Homes is also executed in the companies CHEC, ESSA and EDEQ, belonging to the EPM Group.

Management in 2015

In 2015, the EPM Group invested COP 156,431 million in the Dignifying Homes Program to facilitate the connection of users to the services of energy, gas and water in areas where it is present, benefitting 501,645 people and connecting 114,999 facilities.

Through the Dignifying Homes program, EPM connected 28,009 customers in Antioquia to the energy service. 22,231 of them correspond to the metropolitan area and the regions of Antioquia, and the other 5,778 are part of the rural electrification program. Additionally, 59,914 customers were connected to the gas service; 9,759, to the water service and 10,027, to the sewage service. Among the national affiliated companies, CENS stands out for having the highest number of connections (6,675), followed by ESSA, CHEC (1,762) and EDEQ (886).

EPM Group - Dignifying Homes			
Concept / Indicator	2013	2014	2015
Number of installations connected	125,143	129,015	114,999
Number of people served	461,108	586,328	501,645
Million COP invested	127,304	130,088	156,431

Source: Vice-Presidencies of Transmission and Distribution, and Energy, Gas, Water and Sanitation

Dignifying Homes - Energy			
Concept / Indicator	2013	2014	2015
Number of installations connected in the metropolitan area	13,274	13,835	14,052
Number of installations connected in the regional area	7,119	6,301	8,179
Total installations connected	20,393	20,136	22,231
Number of people served	81,572	80,544	88,924
Million COP invested	11,426	15,987	16,801

Source: Vice-Presidency of Power Transmission and Distribution

In 2015, Dignifying Homes connected 22,231 facilities in Medellin and the metropolitan area, as well as in the regions of Antioquia. Other 5,778 users connected are part of the rural electrification program, so they are not reported in this table.

Dignifying Homes - Gas			
Concept / Indicator	2013	2014	2015
Number of installations connected in the metropolitan area	51,812	40,140	34,549
Number of installations connected in the regional area	41,776	42,332	25,365
Total installations connected	93,588	82,472	59,914
Number of people served	309,776	352,980	256,432
Million COP invested	100,139	97,974	118,989

Source: Vice-Presidency of Gas

Dignifying Homes - Water

Concept / Indicator	2013	2014	2015
Number of installations connected	2,615	17,130	19,786
Number of people served	11,768	77,086	89,037
Million COP invested	13,516	14,052	18,054

Source: Vice-Presidency of Water and Sanitation

The number of water and sewage facilities includes individual customers connected by EPM contractors, either by means of public or social contacting. In both cases, the works are paid through the Dignifying Homes funding program.

Dignifying Homes - Energy subsidiaries companies of the EPM Group

Subsidiaries company / Indicator	2013	2014	2015
CHEC			
Number of installations connected	895	1,878	1,762
Number of people served	3,580	7,512	7,048
Million COP invested	717	625	629
ESSA			
Number of installations connected	6,483	6,181	3,745
Number of people served	49,736	63,334	29,960
Million COP invested	1,232	1,175	712
CENS			
Number of installations connected	N.D.	N.D.	6,675
Number of people served	N.D.	N.D.	26,700
Million COP invested	N.D.	N.D.	1,084
EDEQ			
Number of installations connected	1,169	1,218	886
Number of people served	4,676	4,872	3,544
Million COP invested	273	275	162

Source: Vice-Presidency of Power Transmission and Distribution

Related indicators

G4-EC8 Significant indirect impacts, including the extent of impacts.

Action: Pay According to Your Needs

The Pay According to your Needs program is a collection option that allows users with economic difficulties to pay their bills through installments (up to five per every billing period), depending on their income. It is a system that improves users' quality of life because it gives them more flexible options for paying their bills and allows them to stay legally connected to the public utilities, avoiding cutoffs and reconnection costs. Additionally, the program brings benefits to EPM, as it helps ensuring revenue, reducing portfolio and minimizing operating costs of disconnection and reconnection.

Management in 2015

In 2015, the target market was expanded, allowing more customers to implement this flexible payment method. The execution in 2015 was 23,099 customers connected to the supply, exceeding the goal by 136%.

Expansion of the target market was evaluated and made viable, seeking to facilitate access to this scheme for customers with payment difficulties. This expansion was enabled in February 2015 and the goal was modified from 9,000 to 17,000 customers connected. At the end of 2015, the number of active customers since 2014 ascends to 27,684, year in which the program was launched.

During 2015, it is evident that the expansion of the new target market has driven the program to a higher rate of use: 37% of vulnerable customers and 64% of customers with payment difficulties, for an overall use of 43%.

Pay According to Your Needs - EPM

Concept / Indicator	2013	2014	2015
Number of customers served	N.D.	4,585	23,099

Source: Commercial Vice-Presidency

Related indicators

G4-EC8 - Significant indirect impacts, including the extent of impacts.

Public Power Stacks and Community Meters

Community water meters and public power stacks are non-conventional ways of providing services to sectors in which, due to restrictions to install networks, it is not possible to have individual meters. Collective meters are installed to extend the service to homes, so users have to pay the average consumption of the stratum to which they belong.

Management in 2015

EPM installed 434 meters linked to public power stacks and community water meters, benefiting 2,916 people.

429 of those meters were linked to power stacks, and the other 5 were community water meters. Installation was made in subnormal settlements.

Through the subnormal-settlement intervention model, some actions were carried out on the community infrastructure, the social fabric and the environment, with a sense of projection toward the scheme of a public standpipe of drinking water and basic sanitation, to ensure decent access to water in provisional conditions. The demand management aimed at reducing consumption has been the success factor accumulated over the time of the program, with an achieved reduction of 11 m³/home/month.

Among other possible causes, public stacks and community meters increased in EPM during 2015, due to forced displacement that obliges families to settle in areas of the city classified as non-habitable in the Land Use Plan, creating difficulties for EPM to successfully provide them with residential public utilities.

The company continues promoting connection to prepaid energy as a substitute option to access the energy service in a safe way and paying the actual energy consumption and not a fixed rate that can exceed the value paid in the form of public stack.

Within the EPM programs seeking risk mitigation, in 2015, EPM changed its public stack service for the prepaid energy system in the sectors of Carpinelo, Pichacho, Brisas del Jardín (Manrique) and Moravia, in the metropolitan area.

Public Power Stacks - EPM

Concept / Indicator	2013	2014	2015
Number of public power stacks connected	798	426	429
Number of people served	3,192	1,704	1,716
Million COP invested	717	3,429	2,161
Number of homes connected	10,935	13,983	14,061

Source: Vice-Presidency of Power Transmission and Distribution

Community Water Meters - EPM

Concept / Indicator	2013	2014	2015
Number of community water meters connected	1	6	5
Number of people served	180	960	1,200
Million COP invested	30	80	70
Number of homes connected	45	240	300

Source: Vice-Presidency of Water and Sanitation

Related indicators

G4-EC8 Significant indirect impacts, including the extent of impacts.

Action: Loyalty and Rewarding Program "Somos"

The Loyalty and Rewarding Program "Somos" (We are) aims at recognizing and promoting good payment behavior and responsible use of public utilities among users; thereby, promoting a culture of civic responsibility to support the construction of sustainable and competitive territories and, at the same time, to generate efficiencies in the provision of public utilities services. This program complements the activities of Crédito para el hogar (Credit for Your Home) program offered by EPM since October 2008 to make access and enjoyment of public utilities easier, especially for the low-income population. Currently, Crédito para el Hogar applies to the subsidiary companies CHEC and EDEQ.

Somos rewards behavior related to the payment of public utilities, timely payment (three consecutive months paying on time), on-line bill payment, subscribing to the digital bill instead of the hard copy, subscription to new EPM competing services (natural gas connection, VNG conversion and consumption at EPM gas stations), and using Crédito para el Hogar Somos.

Subscribers can redeem their points for good behavior in the payment of the public utilities or on-line shopping within the commercial partner network. Likewise, some part of the rewards is comprised of discounts, benefits, offers and the possibility to have a home loan. The rewarding actions are complemented by educational activities aimed at promoting the culture of legality and responsible use of public utilities.

Management in 2015

Since the program launch until December 2015, 472,056 people have joined the Somos program to enjoy the benefits of the loyalty program. 83% of subscribers are in socio-economic strata 1, 2 and 3. This is clear evidence of the company's goal of reaching the communities that need it the most.

In 2015, 30,531 families and enterprises benefited from EPM Group social financing loans and COP 76,592 million were loaned.

EPM granted loans to 22,898 new families and enterprises. About 88% of the customers are concentrated in socio-economic strata 1 to 3, with a clear dominance of 2 and 3. Loans totaling COP 65,211 million were granted, which represented combined estimated savings for all clients of COP 4,691 million, in comparison to the financial system. In turn, the subsidiary companies ESSA and EDEQ granted loans for a total of COP 11,075 million, from which 7,633 families benefited.

Thanks to the Loyalty and Rewarding Program "Somos", EPM is getting to know its customers better. Thus it builds rapport and specific strategies to promote civic responsibility culture and to improve payments and the use of the utilities it offers. During 2015, continuous loyalty and rewarding activities were carried out, and experiences were created for families by granting benefits that, one way or another, reduce household bills. Besides, the program strengthened its ally network, including different types of basket of goods, such as food and transportation.

Regarding the home loans, since August 1st 2015, in order to ensure the sustainability of the program and expand its coverage, some features were changed: the rate was adjusted to that of the market and a monthly management fee for unpaid debts was charged. Besides, customers can collect points for good credit behavior and timely payment of public utilities, which will be useful to pay part of the bill. At the same time, they will receive a funeral insurance benefit and the payoff of the debt in case of death, at no cost.

CHEC managed to implement the special financing rate for computers for students and, as another way to promote sustainable mobility, electric bicycles and pedelecs were included in the product portfolio.

At EDEQ, due to the expectation about the start of EPM Group Somos program, in 2015 the promotion activities were mainly focused on commercial partner management at several commercial establishments and an active participation in company events such as "Amigo fiel" (Faithful Friend), the trade show lead by Fenalco Quindío, Expovivienda 2015, Feria de la construcción al día (construction trade show), and the exhibition stand at the collection office, in the main building of the organization.

Somos credit

Item / Indicator	2013	2014	2015
Beneficiary families	27,568	27,795	22,898
Granted credits in COP million	53,297	63,560	65,517
Savings for total customers	4,686	5,302	4,691

Source: Commercial Vice-Presidency

Social financing in electricity subsidiary companies

Filial/Indicador	2013	2014	2015
CHEC			
Beneficiary families	6,222	6,557	5,699
Granted credits in COP million	8,815	7,807	7,250
EDEQ			
Beneficiary families	1,887	1,888	1,934
Granted credits in COP million	3,612	3,697	3,825

Source: Vice Presidency of Power Transmission and Distribution

The variation shown by CHEC is explained by fewer sales through the social financing program due to causes such as: customer over-indebtedness, and many competitors in the market with a wider portfolio and more aggressive market strategies—not included in the policies of CHEC's social financing program. It is highlighted that the lesser number of families also results from the growth in repurchase. Therefore, the same families are benefited on different occasions, according to their financing limit capacity.

Indicator

Indicator	2013	2014	2015
Number of subscribers to Somos Loyalty Program	N.A	45,329	426,727

Source: Commercial Vice-Presidency

Related indicators

G4-EC8 Significant indirect impacts,
including the extent of impacts

Action: Prepaid services

Prepayment is a purchase method for public utilities that seeks to avoid disconnecting users due to payment difficulties. It is mainly aimed at customers who have payment difficulties, especially in socio-economic strata 1, 2 and 3.

This method enables users to control consumption according to their income and to use public utilities more efficiently and consciously.

This method includes delivery of the prepayment meter in commodatum, installation at no cost, and social support, among other conditions that enable the customer to keep enjoying the service.

This method is currently available for the subsidiary companies ESSA and CENS, starting 2016.

A recharge channel was developed via UNE pay phones, thus expanding the coverage of the recharge points for Prepaid Electricity. There are currently more than 20,000 points all over Antioquia, and the customers can recharge 24/7. These add to the 1,400 points of prepaid water recharge in Valle de Aburrá.

The Prepaid Electricity offer was standardized at the subsidiary companies ESSA and CENS, starting 2016, in order to apply best practices in customer service. This homologation included IT adjustments, definition of roles, responsibilities, target market and goals.

The commercial offer of Prepaid Water started on June 26th, 2015. The contracts for prepaid metering equipment, complementary elements, as well as the operation and commercialization of the offer, were awarded.

Management in 2015

EPM Group connected 28,023 homes under the Prepaid Services supply method. EPM connected 19,987 homes to Prepaid Electricity and 82,346 people were benefited. 7,351 homes were connected to Prepaid Water (33,080 people). The subsidiary company ESSA, in turn, connected 685 homes to Prepaid Electricity. This purchase method was established as a product in the services portfolio of EPM Antioquia and ESSA Santander.

EPM Prepaid Electricity

Item / Indicator	2013	2014	2015
Number of installations connected	12,695	14,677	19,987
Number of beneficiaries	50,780	60,871	82,346
Million COP invested	4,164	4,666	5,035
Average kWh consumption per prepayment installation	117	105	112
Average kWh consumption per prepayment installation	213	207	140

Fuente: Vicepresidencia Comercial

ESSA Prepaid Electricity

Item / Indicator	2013	2014	2015
Number of installations connected	1,653	1,599	685
Number of people served	6,612	6,396	2,740
Million COP invested	1,261	1,220	523
Average kWh consumption per prepayment installation	113.3	114.8	112.3
Average kWh consumption per prepayment installation	139.3	140.8	141.5

Source: Vice Presidency of Power Transmission and Distribution

The variation resulted from the restructuring attempted in April for the homologation and segmentation of the market, in order to establish it as a product of the company. The aforementioned didn't allow for massive installations.

The homologation was finally performed in the last quarter of the year and clear policies and roles were defined. Now that the customer service process was broken down by department, we hope to achieve the goal set for 2016.

EPM Prepaid water

Item / Indicator	2013	2014	2015
Number of installations connected	N.D.	N.D	7,351
Number of people served	N.D	N.D	33,080
Million COP invested	398	164	6,707
Average m ³ consumption per prepayment installation	N.D	N.D	9
Average m ³ consumption per prepayment installation	N.D	N.D	15

Source: Commercial Vice-Presidency

The commercial operation of the offer started on June 26th, 2015.

Related indicators

G4-EC8 Significant indirect impacts, including the extent of impacts.

Aspect: Biodiversity

For the EPM Group, biodiversity is the functional basis to maintain essential ecosystem services, such as water resource protection and erosion control. Climate change, deforestation, and river contamination, among others, generate higher pressure conditions over water, forests, and, on the whole, over natural resources. Being aware of this, the Company is committed to develop a comprehensive management of biodiversity, and to look after protection, restoration, sustainable use, and management of its impact, mainly on forests, forest plantations, and ecosystems located in the areas of influence of the projects, works, and activities of the business of Generation, Transmission, and Distribution of Energy, and Drinking Water Supply.

Importance

Biodiversity has value in itself. It generates a high social, economical, and environmental value to the EPM Group and to the stakeholders, by being the functional basis for the maintenance of the goods and services of support, regulation, and supply, as well as the cultural ones offered by the ecosystems, and needed to protect water resources and soils, regulate climate, and keep the supply of raw materials, food, and spaces for recreation and enjoyment, among others.

Stakeholder's Vision

Besides the EPM Group own actions, it is important to form alliances and to participate in joint initiatives with other actors whose aim is to conserve biodiversity, and to maintain the goods and services offered by the ecosystems. For the stakeholders, it allows the continuity of its productive activities, the population's quality of life, the supply of raw materials, and the cultural services, which are crucial to the sustainable development of territories.

Main achievements

Goals for 2015	2015 Achievements	Compliance
Finish the second and the last part of the biodiversity strategy.	A proposal of Comprehensive management strategy of biodiversity and ecosystem services was formulated for EPM. The guidelines, principles, declaration, and proposal of the action plan were obtained.	Total
Perform the internal validation and get its approval.	The internal validation process was started, and the appropriated managements for the approval and disclosure of the strategy within the EPM Group are expected to be performed in 2016.	Partial
Initiate the contracting and the design of an application for the unification and management of the biodiversity information, or the formulation of the action plans for each business.	A diagnosis of the state of knowledge and a preliminary proposal for the EPM Group's action plan were delivered in the second stage of the biodiversity strategy formulation.	Partial

Challenges

Challenges	Coverage	Compliance year	Compliance indicator
Monitor flora, fauna, otter, silvery brown tamarin, fish, and landscapes associated with the Guadalupe-Porce biological corridor, with the program REDD+ EPM and the environmental legal commitments.	Colombia-Antioquia. EPM, Energy: Porce, Guatrán, Riogrande.	2016	No. of biodiversity monitoring contracts performed or being performed.
Make sustainable use of the forest plantations located around the reservoirs, including plantation updates, and conversion to natural or mixed forests.	Colombia-Antioquia. EPM, Energy, Water.	2016	No. of hectares with forest use. Update and conversion.
Perform forest promotion actions for the protection of water resources in the watersheds that supply reservoirs.	EPM, Colombia-Antioquia. Energy, Water.	2016	No. of reforested hectares. No. of delivered seedlings. No. of requests granted.
Implement the actions established in the tree replacement studies.	Colombia-Norte de Santander. CENS, Energy.	2016	No. of implemented actions.
Carry out characterization studies of flora and fauna for new projects.	Colombia-Norte de Santander. CENS, Energy.	2016	No. of conducted studies.
Implement an ecological cable to decrease the pruning of trees under electrified networks.	Colombia-Norte de Santander. CENS, Energy.	2016	Km of installed cable.
By 2019, reforest 100% of the felled trees until 2015, in a ratio of 1 to 1.	Panama. ENSA, Energy.	2016	No. of felled trees / No. of reforested trees.
Perform reforestation activities to benefit the departments in which the Empresa Eléctrica de Guatemala S.A. has influence.	Guatemala. Eegsa, Energy.	2016	No. of reforested hectares.

Related indicators

G4-EN11 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.

G4-EN12 Description of the most significant impacts on biodiversity in protected areas and areas of high biodiversity value outside protected areas, derived from activities, products and services in protected areas and areas of high biodiversity value outside protected areas.

Electricity sector: Report the nature of significant direct and indirect impacts on biodiversity with reference to: i) maintenance of transmission linear corridors, ii) fragmentation and isolation, iii) impacts of thermal discharges.

G4-EN13 Habitats protected or restored.

G4-EN14 Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.

G4-EU13 Comparison of biodiversity between compensated habitats and areas affected.

EPM-01 Conservation areas.

EPM-02 Progress in the biodiversity strategy management.

Action: Protected areas, forests and plantations

To provide the energy and water supply public utilities, the EPM Group relies on important ecosystem services such as water regulation and sediment control. The EPM Group performs activities to ensure protection, restoration, sustainable use and knowledge management actions seeking the integral conservation of the biodiversity and the ecosystem services derived from environmental licensing requirements and from the voluntary management completed as part of its environmental and social responsibility. Protected areas comprise different types of natural and man-made habitats, such as reservoirs, natural forests and plantations, which are essential for several species of flora and fauna.

Management in 2015

In 2015 EPM launched and distributed illustrated guides of the flora and fauna of the Porce river canyon, the declaration of the Protectora Playas Forest Reserve, the text of the Plan of Ecological Restoration of Porce III and the completion of the agreement for the study of the assembly of big cats in the biological Porce-Guadalupe corridor.

The EPM Group contributes to the conservation of natural forests and the protection and conservation of water, by participating in the BanCO₂ program through agreements between EPM, ESSA, CENS, EDEQ and CHEC, and the regional autonomous corporations on their areas of influence. This initiative contributes to the conservation of biodiversity in 2,985.22 ha of natural forests in different areas of interest of these companies. The areas preserved by each subsidiary are: ESSA, 109.22 ha; CENS, 711.0 ha; and CHEC, 794.0 ha, plus the conservation of 1,371.0 ha by the EPM's Transmission and Distribution Business in 2014.

Some of the actions held in the term are:

At EPM

- **Forest Plantation Program:** plantations were established with 71,912 seedlings on 64.7 ha; 228.5 hectares of forest plantations were cared for in order to improve the quality of wood; 7 ha were lumbered; and 126 ha were clearcut to produce wood for houses of the Aldeas program.
- **Forestry Promotion Program:** created in 1980 with the aim of protecting water resources in the basins that supply the reservoirs. The project produced 1,850,000 seedlings, of which 1,774,417 (96.9%) were given to the community. This equates to roughly 1,577 hectares.
- **Ecological Restoration Program:** writing of the Plan of Ecological Restoration of Porce III, which integrates EPM lands with high biodiversity to La Forzosa and Arrierito Antioqueño forestry reserves and La Cacica Noría area. Completion of actions to continue the recovery and protection of the wetland in La Sierra thermoelectric plant and the restoration of protection zones in the reservoirs by inserting native species in 38 ha.
- **Sustainable production (natural, economic and social capital):** in agreement with Compañía de Empaques and different municipalities, a piece of land was allocated under bailment to the community through Asdefique to create a nursery for the production of 1,000,000 fique seedlings. This will benefit 85 families.
- **Watershed Program:** together with Cornare, this year EPM achieved the completion of the declaration of the Protectora Playas Forest

Reserve. Also, both entities started working with Corantioquia to identify synergies in the Cacica Noría protected area project, in Anorí, and the EPM lands in the area of influence of the Porce III hydroelectric plant. Providing information to the municipalities of Carolina and Guadalupe, Antioquia, to formulate their municipal systems of protected areas (SIMAP), which includes EPM forests.

- **Protected Areas Program:** together with Cornare, this year EPM achieved the completion of the declaration of the Protectora Playas Forest Reserve. Also, both entities started working with Corantioquia to identify synergies in the Cacica Noría protected area project, in Anorí, and the EPM lands in the area of influence of the Porce III hydroelectric plant. Providing information to the municipalities of Carolina and Guadalupe, Antioquia, to formulate their municipal systems of protected areas (SIMAP), which includes EPM forests.

At the subsidiaries:

- **ESSA:** the Conservation program protected about 220 hectares of the Altamar lands located in Cristales, in the municipality of Piedecuesta. Altamar includes five water sources which are guarded periodically. 1.30 pot-bellied ceibas were planted or taken care of; the ceiba is an endemic species to the region and is endangered. Development of the environmental program of reforestation, horticulture and awareness with the communities located in the area of influence of the company.
- **CENS:** the Forestry Promotion program established and managed community nurseries and it

also delivered the nursery "The Cañahuate" to Asoagricalpat, the Asociación de Agricultores de la Vereda California (Farmers Association of the Vereda California) in Los Patios, which includes 20 families.

- **EEGSA:** in the Emissions Compensation Program, the company planted 3,000 trees as part of the annual reforestation plan.
- **Aguas de Occidente:** within the Water Resource Protection program, Aguas de Occidente reforested the banks of La Muñoz stream and planted 1,000 trees.

- **Aguas de Oriente:** within the Water Resource Protection program, Aguas de Oriente celebrated reforestation day with the community in the Pantanillo river basin and planted 200 trees.

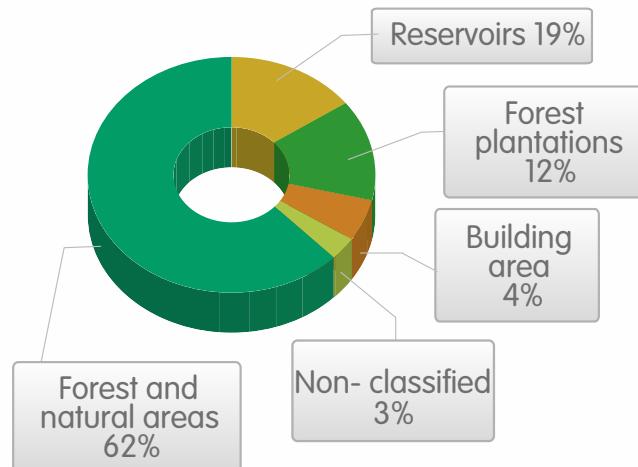
Areas and uses of the soil (km²) - EPM Group

Company / Business	Reservoirs	Building Area	Forest and Natural Areas	Forest Plantations	Non-Classified Area	Total Area
EPM - Water and Sanitation	1.52	0.31	13.00	14.57	0.90	30.30
EPM - Energy Generation	108.47	1.70	188.87	60.91	17.39	377.34
EPM - Ituango Project	11.01	11.87	120.64		0.71	144.23
EPM - Transmission and Distribution		10.10				10.10
CHEC - Transmission and Distribution	1.33	0.82	60.87			63.02
EPM - Chile - Generation		0.35	14.40	0.06		14.81
ENSA - Transmission and Distribution		0.03	0.02			0.05
Total	122.33	25.18	397.80	75.54	19.00	639.85

Source: Idsos. Geographic information system, Génesis (EPM).

For 2015, the areas reported by EPM, CHEC, EPM Chile and ENSA amount to 640 km², of which 59% come from EPM Energy Generation (reservoirs, natural forests and forest plantations, mainly). It is worth highlighting the Ituango Hydroelectric Project (EPM), with the acquisition of 120.6 km² of land for protection and compensation of impacts on the tropical dry forest ecosystem, 60.9 km² in conservation areas in the basins where CHEC operates and the areas reported by EPM and ENSA (Transmission and Distribution) related to the substations and the easements that pass through declared protected areas.

Classification of areas - EPM Group



Source: Idsos

The area reported by EPM (Water, Energy, Ituango Hydroelectric Project), CHEC, EPM Chile and ENSA adds up to 640 km². It is worth highlighting that 93% of the area, including natural hedging (62%), tree plantations (12%) and reservoirs (19%), is intended to protect the water resources necessary for the provision of public services, and make up important terrestrial and aquatic ecosystems that contribute to the comprehensive conservation of biodiversity and to the ecosystem services. Only 4% of the total area is occupied by the operational infrastructure.

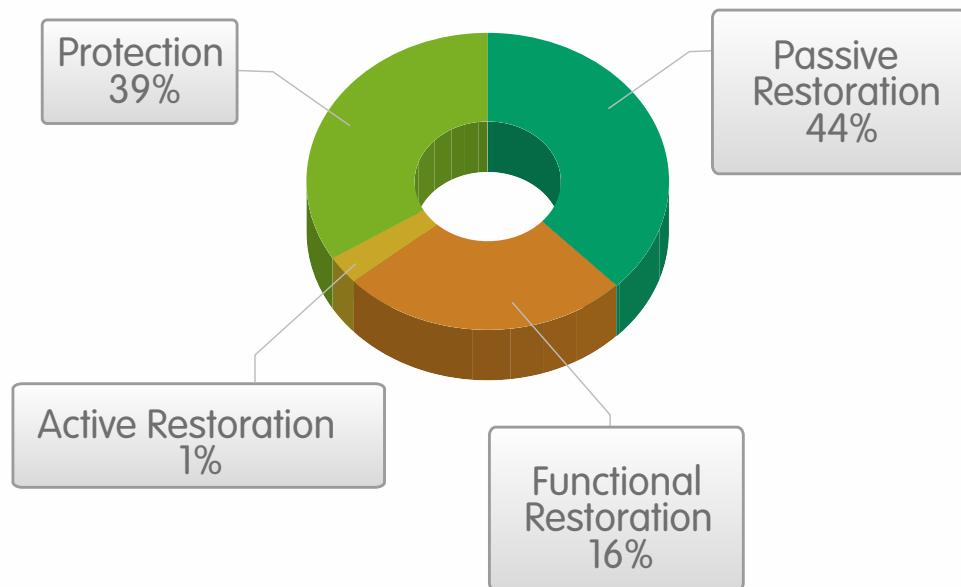
► Protection and restoration actions (km²) - Per company and business

Company / Business	Passive Restoration (Assistance to natural succession)	Active Restoration (Plantation of native species)	Functional Restoration (Forest plantations)	Protection (Natural forest)
EPM - Water and Sanitation	8.26		14.57	4.74
EPM - Energy Generation	94.86	2.62	59.89	91.39
EPM - Ituango Hydroelectric Project	101.98			18.66
EPM - Transmission and Distribution	0.06			
CHEC - Transmission and Distribution	3.89			56.98
EPM Chile - Generation			0.06	14.40
ENSA - Transmission and Distribution		0.02		
Total	209.05	2.64	74.52	186.17

Source: Idsos

This report includes new protective and ecological restoration actions carried out at the EPM Group throughout its history. According to reports by EPM, CHEC, EPM Chile and ENSA, approximately 186 km² of natural forests are protected and about 286 km² have been restored mainly in the surroundings of the reservoirs and through different technical approaches: assistance to natural succession (passive restoration), forest plantations (functional restoration) and planting of native species (active restoration).

Protection and restoration actions - EPM Group



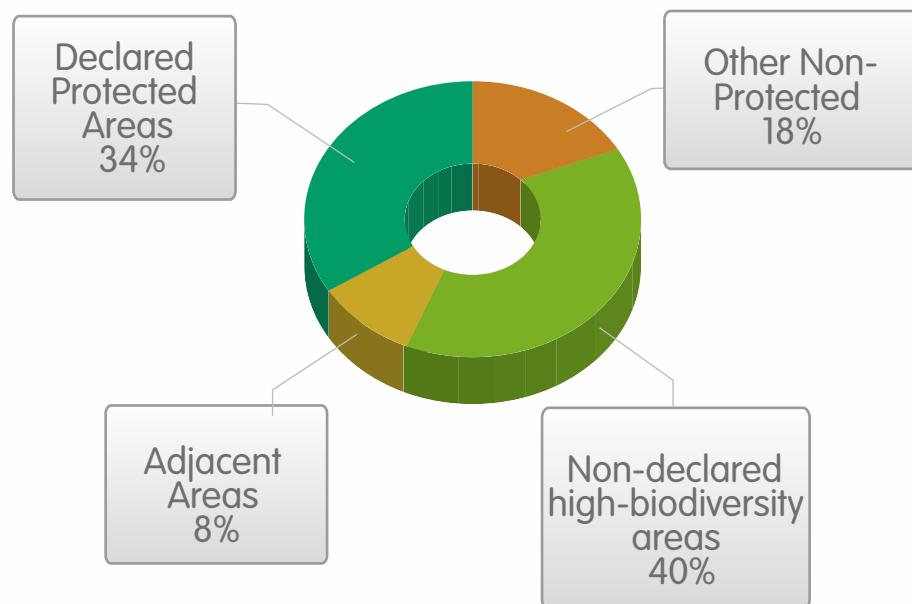
Protected, adjacent or high-biodiversity areas (km²) - EPM Group

Company / Business	Declared Protected Areas	Adjacent Areas	Non-Protected High-Biodiversity Area	Other Non-Protected Areas
EPM - Water and Sanitation	26.94	2.69		0.67
EPM - Energy Generation	139.51	31.61	11.645	89.77
EPM - Ituango Project			120.64	23.59
EPM - Transmission and Distribution	9.52			0.58
CHEC - Transmission and Distribution	38.93	5.70	16.24	2.15
EPM Chile - Generation	0.11	14.64		0.06
ENSA - Transmission and Distribution	0.02			0.03
Total	215.03	54.64	253.33	116.85

Source: Idsos.

The operational sites owned, leased or managed by EPM, CHEC, EPM Chile and ENSA, including terrestrial and aquatic ecosystems (reservoirs), add up to about 640 km², of which 215 km² are located within legally declared protected areas, 54.6 km² are adjacent (buffer zones) to protected areas and 253 km² are considered as areas with high biodiversity value but have not yet been declared as protected areas.

Protected areas - EPM Group



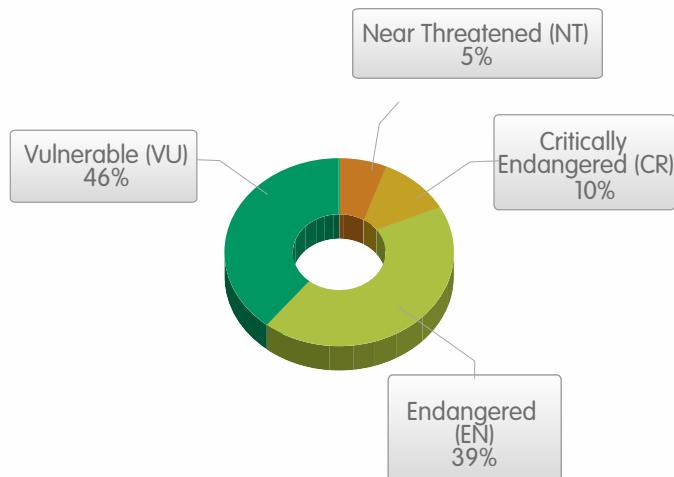
Threatened species by biogeographic region

Region / Status	CR	EN	VU	NT	Total
Colombia - Antioquia - Región Magdalena Medio - Termos Sierra	2	4	1		7
Colombia - Antioquia - North-East Region	3	7	14		24
Colombia - Antioquia - North Region			3		3
Colombia - Antioquia - West Region	1	5	9	3	18
Colombia - Antioquia - East Region	1	4	2		7
Colombia - Caldas - CHEC Forest		10	14	1	25
Chile - Región Coquimbo - Ovalle - Los Cururos Wind Farm		1			1

Source: Idsos. (EPM, CHEC, EPM Chile). Categories: Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT).

The operational sites owned, leased or managed by EPM, EPM CHEC and Chile, including terrestrial and aquatic ecosystems (reservoirs), contribute to the conservation of species at different levels of risk. It is worth highlighting the biological Porce-Guadalupe corridor (REDD+ program), in the department of Antioquia, which includes 24 species; the CHEC forests in the department of Caldas, Colombia, with 25 species, and the Ituango Hydroelectric Project in Antioquia, with 18 species. In total, 61 species were reported in threat status (some species are reported in several regions).

Threatened species EPM Group



Source: Idsos

The terrestrial and aquatic ecosystems protected by the EPM Group are habitats that contribute to the conservation of biodiversity and ecosystem services, generate regional biological corridors and provide shelter for flora and fauna that are considered endangered. EPM (Energy Generation, Water and Sanitation, Ituango Project), CHEC and EPM Chile, reported 6 Critically Endangered (CR) species, 24 Endangered (EN) species, 28 Vulnerable (VU) species and 3 Near Threatened (NT) species.

List of Critically Endangered (CR) Species - EPM Group

Scientific Name	Common Name	Biological Group
<i>Cariniana pyriformis</i>	Colombian Mahogany	Plants
<i>Lipaugs weberi</i>	Chestnut-capped Piha	Birds
<i>Magnolia espinallii</i>	Hojaresca del Espinal	Plants
<i>Odocoileus virginianus tropicalis</i>	Key deer, White-tailed deer	Mammals
<i>Prochilodus magdalena</i>	Bocachico	Fishes
<i>Pseudoplatystoma fasciatum</i>	Barred sorubim, Tiger catfish	Fishes

Source: Idsos. EPM, CHEC, EPM Chile.

List of Endangered (EN) Species - EPM Group

Scientific Name	Common Name	Biological Group
<i>Ageneiosus caucanus</i>	Doncella, Niña, Gata, Fría, Señorita	Fishes
<i>Anas cyanoptera</i>	Cinnamon teal	Birds
<i>Andinobates bombetes</i>	Caucan poison frog	Amphibians
<i>Aspidosperma polyneuron</i>	Carreto, Peroba amarela, Peroba	Plants
<i>Capito hypoleucus</i>	White-mantled barbet	Birds
<i>Cedrela odorata</i>	Spanish cedar, Cigar-box wood	Plants
<i>Ceroxylon quindiuense</i>	Palma de cera del Quindío	Palms
<i>Coeligena prunellei</i>	Black inca	Birds
<i>Curimata mivartii</i>	Vizcaína, Cachaca, Sardina	Fishes
<i>Elaeis oleifera</i>	American oil palm	Palms
<i>Grallaria milleri</i>	Brown-banded Antpitta	Birds
<i>Hypodactylus latens</i>	Boqueron robber frog	Amphibians
<i>Hypopyrrhus pyrohypogaster</i>	Red-bellied grackle	Birds
<i>Ichthyoelephas longirostris</i>	Getudo, Pataló, Besote	Fishes
<i>Juglans neotropica</i>	Andean walnut, Cedro negro	Plants
<i>Magnolia hernandezii</i>	Molinillo del río Cauca, Copachi	Plants
<i>Magnolia</i> sp. nov.2	Magnolio de Jardin	Plants
<i>Osornophryne percrassa</i>	Herveo plump toad	Amphibians
<i>Pachira quinata</i>	Ceiba Tolua, Pochote	Plants
<i>Saguinus oedipus</i>		Mammals - Primates
<i>Sarkidiornis melanotos</i>	Comb duck, Knob-billed duck	Birds
<i>Spalacopus cyanocephalus</i>	Cururo	Mammals
<i>Tapirus pinchaque</i>	Mountain tapir, Woolly tapir	Mammals
<i>Vultur gryphus</i>	Andean Condor	Birds

Source: Idsos. EPM, CHEC, EPM Chile.

List of Vulnerable (VU) Species - EPM Group

Scientific Name	Common Name	Biological Group
<i>Andigena hypoglauca</i>	Grey-breasted Mountain Toucan	Birds
<i>Aotus lemurinus</i>	Colombian night monkey, Lemurine	Mammals - Primate
<i>Ara militaris</i>	Military macaw	Birds
<i>Bolborhynchus ferrugineifrons</i>	Rufous-fronted parakeet	Birds
<i>Bolitoglossa lozanoi</i>	Salamandra corpulenta café	Amphibians
<i>Coendou vestitus</i>	Brown hairy dwarf porcupine	Mammals
<i>Cryosophila kalbreyeri</i>	Palma escoba	Palms
<i>Dinomys branickii</i>	Pacarana	Mammals
<i>Eleutherodactylus fallax</i>	Rana de lluvia gargantimanchada	Amphibians
<i>Grallaria rufocinerea</i>	Bicoloured antpitta	Birds
<i>Grallaricula lineifrons</i>	Crescent-faced antipitta	Birds
<i>Gustavia dubia</i>	Mula muerta, alma negra	Plants
<i>Hapalopsittaca amazonina</i>	Rusty-faced parrot	Birds
<i>Leopardus tigrinus</i>	Oncilla, Little tiger cat	Mammals - Felines
<i>Leopardus tigrinus pardinooides</i>	Tigrillo gallinero, Tigrillo, Oncilla	Mammals - Felines
<i>Leptosittaca branickii</i>	Golden-plumed parakeet	Birds
<i>Lontra longicaudis</i>	Neotropical otter, Neotropical river	Mammals
<i>Mazama rufina</i>	Dwarf red brocket, little red brocket	Mammals
<i>Nymphargus griffithsi</i>	Ecuador cochran frog, pepper glassfrog	Amphibians
<i>Ornithodoros erythroptera</i>	Rufous-headed chachalaca	Birds
<i>Panthera onca centralis</i>	Centralamerican jaguar	Mammals - Felines
<i>Podocarpus guatemalensis</i>	Mountain cypress	Plants
<i>Podocarpus oleifolius</i>	Pino colombiano	Plants
<i>Quercus humboldtii</i>	Roble, Andean oak	Plants
<i>Saguinus leucopus</i>	Silvery-brown tamarin, white-footed	Mammals - Primate
<i>Salmiurus affinis</i>	Dorada, Picuda	Fishes
<i>Tapura colombiana</i>	Nacedero	Plants
<i>Tremarctos ornatus</i>	Spectacled bear, Andean bear	Mammals

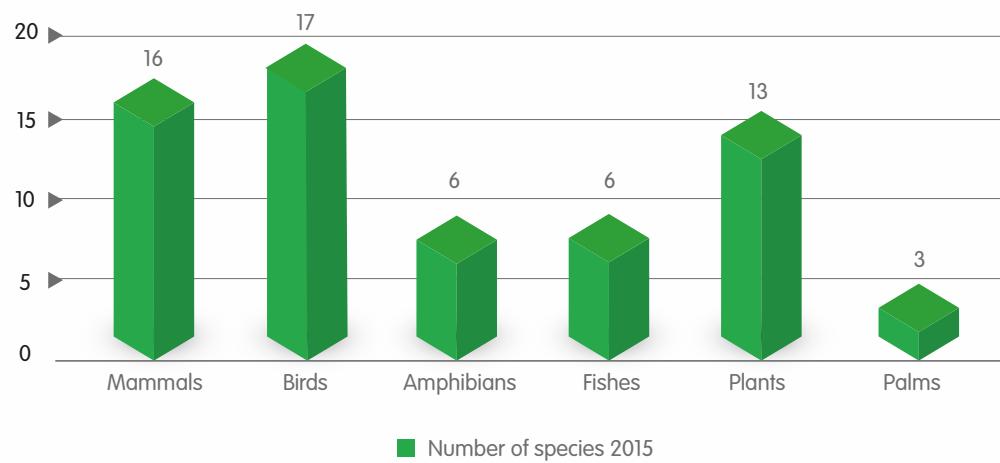
Source: Idsos. EPM, CHEC, EPM Chile.

List of Near Threatened (NT) Species - EPM Group

Scientific Name	Common Name	Biological Group
Habia gutturalis	Sooty ant-tanager	Birds
Leopardus wiedii	Margay, Tree ocelot	Mammals - Felines
Puma concolor	Puma	Mammals - Felines

Source: Idsos. EPM, CHEC, EPM Chile.

Number of Near Threatened (NT) Species - EPM group



Source: Idsos. EPM, CHEC, EPM Chile

For this 2015 report, EPM (Energy, Water, Ituango Hydroelectric Project), CHEC and EPM Chile reported 61 species of different biological groups under some level of risk.

In EPM Energy it is worth highlighting the interagency agreements for the conservation of big cats (jaguars, pumas, ocelots), otters, white-footed tamarins as umbrella species in the biological Guadalupe-Porce corridor (REDD+ program). Additionally, the corridor also includes endemic birds like the arriero antioqueño, mammals such as the spectacled bear and night monkeys, and trees such as the Colombian oak, cedar, the Colombian pine, pino romero, and southern magnolia.

In EPM Ituango Hydroelectric Project, it is important to mention the acquisition of lands with tropical dry forests and transition to tropical rainforest, which are the habitat of species of threatened fauna and flora,

including three primates (cotton-top tamarin, white-footed tamarins, night monkeys), several big cats (jaguars, pumas and ocelots), other mammals such as white-tailed deers and otters, birds like the green macaw, and trees such as cedar, ceiba, Tolua, black oak and black cedar, among others.

In CHEC, it is worth mentioning the conservation of species of fauna and flora associated with the páramo, the subpáramo and the high Andean forests, including the Andean condor, the mérida brocket, the mountain tapir, the wax palm of Quindío, the puma and night monkeys. It is important to mention the environmental education programs, which include trails for watching endemic and migratory birds in the protected forest area of CHEC.

Related indicators

G4-EN11 operational sites owned, leased , or managed , which are adjacent or located within protected natural areas or unprotected high biodiversity areas .

G4-EN12 Description of the most significant impacts on biodiversity in natural areas protected or unprotected areas of high biodiversity arising from activities , products and services in protected areas and areas of high biodiversity value in areas outside the areas protected .

G4-EN13 Habitats protected or restored .

G4-EN14 Number of species on the IUCN Red List species and national lists , with habitats in areas affected by operations, by level of extinction risk species.

G4-EU13 comparison between compensated biodiversity and habitats affected areas .

EPM-01 Conservation Areas

Action: Biodiversity strategy

The strategy for the EPM Integrated Management of Biodiversity and Ecosystem Services [Gestión Integral de la Biodiversidad y los Servicios Ecosistémicos (Gibse)] allows establishing the fundamental guidelines, principles, guides, and strategic elements for decision making concerning preservation, restoration, sustainable uses, knowledge, and information.

Management in 2015

The strategy for the EPM Integrated Management of Biodiversity and Ecosystem Services (Gibse) formulation was finished in December 2015.

Progress in the Integrated Management of Biodiversity and Ecosystem Services (Gibse)

Item / Indicator	2013	2014	2015
Gibse strategy formulation - Phase I	100%	100%	
Gibse strategy formulation - Phase II			100%
Gibse strategy validation and statement - EPM Group			30%

Source: Gibse strategy documents

Challenges

Short, Medium and long-term Goals	Compliance indicator
Achieve internal validation and GIBSE strategy approval	EPM Group GIBSE strategy validated and approved
Perform GIBSE strategy statement and disclosure in the EPM Group business and subsidiary companies, and adjust the action plans	EPM Group GIBSE strategy stated and discussed

Source: GIBSE strategy documents (Integrated Management of Biodiversity and Ecosystem Services).

The strategy for the EPM Integrated Management of Biodiversity and Ecosystem Services (Gibse) formulation takes into account the national policy, and the own risks and opportunities of the EPM business.

The Strategy formulation process was completed in December 2015, and performed with financial contributions given by the French Development Agency (AFD), the technical support from the World Wildlife Fund (WWF), and the environmental group Proterra. The company executives were interviewed, and technicians in different areas attended workshops and meetings during the phase prior to the final documents edition.

There are eight documents and one video. This last one includes diagnostic aspects, and the participatory process with the community and the stakeholders. The diagnosis of the state of topic knowledge, the proposal with guidelines, principles and declaration, and the proposal for the action plan make part of the deliverable ones.

In 2016, approval and disclosure will finish, and definition and execution of the action plans for each business will start.

Biodiversity management:

Besides the management oriented to the biodiversity strategy structuration, it is highlighted, among others, the following activities performed in the framework of different programs:

In EPM

- **Wild fauna and flora program in power generation plants:** : the convention with the National University of Colombia and the Environmental Regional Autonomous Corporation (Corantioquia) was executed to study the feline assembly in the Guadalupe-Porce biological corridor. Likewise, the following programs were executed: the WCS-EPM convention for the conservation strategy implementation of the silvery brown tamarin (*Saguinus leucopus*), the EPM-University of Antioquia convention for the neotropical otter (*Lontra longicaudis*) monitoring that has been executed since 2012, the ichthyofauna monitoring of the Porce river canyon in the influence area of the reservoirs Porce II and III, and the launch of the Porce river canyon's fauna and flora guidelines, distributed between the different stakeholders.

- **Flora and fauna management program in electricity infrastructure corridors of the energy transmission and distribution system:** during 2015, forestry interventions according to the Tree Management Plan [Plan de Manejo del Componente Arbóreo (PMCA)], silvicultural practices of technical pruning, tree felling with risk of falling, tree sowing and supply, and management of pruning and tree felling by-products were continued. Likewise, the pruning quality indicator in a distribution area was implemented; protective shields in points where a high quantity of birds with electrocution risk has been identified were implemented; and protective covers in critical points of the electric power distribution circuits were installed.
- **REDD+ program:** The "Vegetal production and plantation of a *Genipa americana* (Jagua) experimental plot of land in the Porce's zone" were performed through the EPM-Ecoflora Alliance, as well as the environmental education and agroforestry promotion event in the project zone.

In the subsidiary companies:

- **ESSA:** in the framework of the Flora and Fauna Management program in electrical grid corridors of the transmission and distribution system, it was performed a monitoring to the environmental aspects and impacts generated by pruning and tree felling activities of the arboreal component that interferes with the electric power conduction lines in its jurisdiction, besides the execution of tree replacement programs consisting in identification and assessment of the phytosanitary status of species being under the power distribution network and requiring silvicultural activities deployment.

Epiphytes rescue and transfer to the so-called Miravalle land located in La Lizama, a rural population belonging to Barrancabermeja's municipality, in a 2-hectare area that will be used as ecological rehabilitation area for species conservation, an activity resulting from the Llanito line's construction project, with a voltage level of 34.5 kV.

- **CENS:** in the forestry promotion program, the establishment and management of community nurseries were performed, and the "El Cañahuate" nursery was delivered to the Farmers association of California in the municipality of Los Patios (Asogricalpat), composed of 20 families.

Related indicators

EPM-02 Progress in the biodiversity strategy management.

Aspect: Quality of working environment

Collective perception of employees regarding the company practices, policies, structure, processes, and systems that has an impact on the human environment in which daily work takes place.

Occupational climate directly influences employees satisfaction, commitment, and productivity. This allows the corporate goals to be achieved.

Stakeholder's vision

Transparent communication expectations, creation of spaces of trust to manifest the feelings regarding organizational dynamics, coherence between strategic speeches and decisions, employees emotional well-being, balance between working and family lives, and balance between professional contribution and recognition.

Importance

Occupational climate quality directly influences employees satisfaction, commitment, and productivity, and therefore, the corporate goals achievement. It creates a social value between EPM group people and the EPM Group companies that is extended to the other stakeholders in terms of trust and legitimacy.

Main achievements

Goals for 2015	2015 Achievements	Compliance
Organizational climate and engagement measurement: implementation of the organizational climate survey.	<p>80% of employees participated in the EPM organizational climate and engagement survey. In CENS, the measurement tool was implemented in both modes: face to face and virtual. It counted on the 83% participation.</p> <p>In CHEC company, an organizational climate diagnosis was performed for the first time from the Change and Culture process, through printed and virtual surveys, with a 76.9% response rate of the total company's personnel. In EDEQ and CENS, this measurement was also performed, whereas in the Eegsa Group's subsidiary companies and ENSA measurements are carried out through their own methodologies.</p>	Total
Definition of activities aimed at personal growing and strengthening based on values that contribute to the organizational climate improvement and, therefore, to the organizational goals achievement.	<p>In EPM, actions such as implementation of practices oriented to the target culture, leaders strengthening for the Group transformation, and development of the talent that responds to the new capabilities of being and knowing were developed.</p> <p>100% of managers and 80% of ESSA employees participated in the consolidation workshop to strengthen knowledge and understanding of the corporate mission, vision, actions, and values within the work teams, as well as their contribution for the strategy and business purpose achievement.</p> <p>Eegsa, for its part, executed a plan for the permanent organizational climate management, and managed to improve the results in comparison with the previous measurement.</p> <p>Aguas de Occidente executed the 2015 Welfare Plan, considering several activities that contributed to the partners and their family group's welfare, comprehensive development, and quality of life improvement. Thus, the company motivates human resources and develop its loyalty, increasing the sense of belonging, and strengthening the organizational culture.</p> <p>New communication spaces were created between the Management and the organization's partners, and the internal stakeholders of Aguas de Malambo. Some of the main achievements are: establish clear communication channels; promote a good motivation, commitment, responsibility, involvement, and participation of partners; and a good integrating climate at work.</p> <p>In Aguas de Oriente, performing activities with employees were replaced by performing activities with families. Aguas Nacionales executed the entire defined plan.</p>	Total

Challenges

Challenges	Coverage	Compliance year	Compliance indicator
Implementation of practices and methodologies oriented to the target culture. Strengthening of leaders for the Group transformation. Development of the talent that responds to the new capabilities required.	EPM	2016	Performed activities / planned activities.
Management of the organizational climate and work commitment according to the obtained results in the diagnosis.	CENS	2016	Definition and execution of the organizational climate and work commitment management plan.
Implementation of the new performance assessment model.	Emvarias		Percentage (%) of progress of the plan.
Development of the Leadership School.	CENS, ESSA, Emvarias	2016	Percentage of the program compliance.
Analysis of the results obtained in the survey, and delivering of these results to the entire company.	EPM, national energy subsidiaries.	2016	Discussion meetings.
Definition and implementation of an action plan for the organizational climate survey results.	EPM, national energy subsidiaries, Aguas Nacionales	2016	Action plan compliance.
By 2016, matching of the assessment score of the 2014 climate study.	Adasa	2016	Organizational climate indicator.
Measurement and individual development plan for unit managers and coordinators.	Eegsa	2016	Percentage of execution according to the established scheduled.
Reinforcement of subjects related to leadership in competences such as decision making, delegation, time organization, teamwork, and communication, according to the GPTW results.	ENSA	2016	GPTW survey.

Related indicators

EPM-03: Organizational climate measurement results.

Action: Organizational Climate

Collective perception regarding the company practices, policies, structure, processes, and systems, and its resulting reaction that has an impact on the human environment in which daily work, satisfaction, commitment, and productivity take place.

It is defined by the leader performance, people's commitment, and their way to work and interact. In this regard, organizational climate is a collective development with the commitment of all the people involved.

Management in 2015

The same methodology implemented in 2014 to perform the organizational climate and engagement measurement was implemented in 2015. This allows us to compare both measurements.

People's participation in the survey increased by 6% in comparison with the previous year.

To ensure the standardization in the organizational climate and engagement measurement methodologies, as well as the uniqueness in the quality criteria for the supplier selection, national energy subsidiaries and EPM made a joint purchase process in 2015 to perform this measurement.

Implementation of the EPM organizational climate and engagement survey had 80% participation of EPM employees. The obtained result is 54.7, and it is located in the upper-intermediate scale level, which gives general positive images and representations regarding the work realities explored at a general level.

The indicator reflects a significant improvement compared to the first study, as well as stability regarding the last one. Increasing variables such as manager support, interpersonal relationships, resources availability, and organizational clarity were described as outstandingly positive by the Cincel S.A.S. firm, which is in charge of measurement. It is important to understand that the 2014 organizational climate measurement value is adjusted regarding the model and according to the consultant methodology, so it allows comparability between the 2014 and 2015 measurement results. Therefore, the organizational climate measurement, that was 54.9 in 2014, is now 54 as it was adjusted to the market model.

In the subsidiary companies such as EEGSA, the permanent climate management stages comprise awareness, assessment, and diagnosis, as well as delivering results to all areas, and monitoring and support action plans during the year. Variables used in the survey are: training and development, teamwork, communication, leadership, security, order and neatness, motivation and work environment, and identification and image. In this subsidiary company, total score was improved in 4 points compared to the previous measurement. In ENSA, for its part, dimensions such as credibility, respect, fairness, pride, and companionship are measured.

Organizational climate measurement result

Company	2013	2014	2015
EPM	N.A	54	54.7
CHEC	N.A	N.A	52.8
ESSA	N.A	N.A	49
EDEQ	N.A	N.A	53.3
CENS	N.A	N.A	55.7
Eegsa	N.A	80	84
ENSA	85	84	79
Adasa	68	72	65

Source: Vice Presidency of Human Development and Organizational Capabilities.

Results of the EPM, CHEC, CENS, ESSA, and EDEQ companies are comparable with each other, since the organizational climate and engagement measurement was performed under the same methodology with the Cincl S.A.S. firm.

Related indicators

EPM-03: Organizational climate measurement results.

Action:Organizational Culture

Business group reconfiguration for sustainability demands starting a journey of transformation and adjustment to the planning and cultural traces that will enable it. In order to achieve that, the Group declared the target culture as a map composed of seven paths or components that show what we appreciate, what we do, how we interact, what place we give to the human, and how the inspiring and transforming leadership is a lever to achieve the main purpose.

Within the EPM Group, leadership is understood as the capacity to join the strategic vision of the organization to the performance and development of the company and the people, through their inspiration, guide, and companion in environments of trust, respect, appreciation, service, diversity, and harmony. Our purpose is to strengthen practices and processes that lead to the incorporation of actions that show that the presence of the EPM Group's cultural traces guides the performance and links the organization purpose and values and the internal and external environment demands, in order to contribute to the strategy achievement, and in balance, to the people's comprehensive growth.

Management in 2015

Along with the national subsidiary network, create the leadership model and the elements associated with the Leadership School, team development process, and definition of Service value.

Organizational culture as the strategic planning enabler.

Inclusion and participation of the subsidiary network in the models and methodologies construction seeks to strengthen the interdependence and standardization of the practices, processes, models, and methodologies to be implemented in each one of the companies. It started with the Group's Code of Ethics construction, with the participation of some specific roles (secretaries and human resources liaisons) of national and international subsidiaries. Additionally, redefinition and adjustment of the nine actions oriented to the target culture and the strategic planning were performed, as well as the coordination between the cultural values and actions and the Code of Ethics statements, the brand image, and the corporate style to strengthen the EPM Group identity. The Service value is included as a fundamental characteristic of the human in a public multilatino group.

Meaning and awareness of the concept of the human is highlighted within the business group.

During 2015, disclosure and incorporation of the organizational values were performed in EPM to promote a management that reports the balance between the human and the technical, facilitates the human being's comprehensive growth, and allows to fulfill the value proposition offered: human being as the organizational development center.

By incorporating the organization's actions and values, the leader identification as a mobilizer for transformation and engine of strategic planning, allows the leader to train and get qualified in developing the profile described within the dimensions of self-control, engagement, and results achievement.

Action: Human Resource Management

As part of the organizational transformation process that the EPM Group has undergone, an initiative targeting the human resource comprehensive management was developed during 2015, with the main purpose of giving people visibility, proving their individual and collective contribution in line with the organization performance, and projecting the organization and human resources required for the organizational goals achievement.

Management in 2015

Development plan design derived from conversations where development needs were identified in order to respond to the assigned indicators compliance.

Talent map preparation, using the development assessment results and the potential of managers and professionals as input. It allows us to set a path for development actions and promotion opportunities.

The introduction of the talent review practice was performed in EPM. It allows us to map the talent available in the organization and to implement the required development strategies to respond with greater effectiveness to the organizational challenges. This practice was materialized through the following actions:

- Development of 34 talent review workshops with the organization's executives in order to enrich the talent distribution analysis.

- Training and qualification in performance conversations based on the results of potential and performance assessment for 223 executives and 155 team leaders.
- Support for executives, team leaders, and employees in general to define development plans.
- Definition and regulation of people's promotion mechanism, which contribute to the EPM People's personal and professional growth.
- Key processes and associated posts were identified, as well as the conceptual review of the succession mechanism.

Aspect: Quality and safety of products and services

Technical and commercial characteristics inherent to service, to meet the expectations of customers and users and meet regulation and control requirements. This subject includes service quality, continuity, and security, as well as aspects related to assistance, education, communication, customer satisfaction, and corporate reputation.

Stakeholder's Vision

Secure and quality service provision is the main expectation stakeholders have about the organization, especially customers and users.

Importance

Economic value is associated with the objective of process optimization, basis of the Group business competitiveness, and the quality to satisfy customers and users requirements.

Regarding social value, product quality has an impact on the quality of life and human development. Moreover, safety protects life and health of internal and external stakeholders.

Main achievements

Goals for 2015	2015 Achievements	Compliance
EPM Group		
Standardize customer support process in EPM Group subsidiary companies in Colombia	The customer support process was standardized in 2015 with the Group national subsidiaries.	Total
EPM		
Continue to strengthen risk management and response to events, to minimize possible safety incidents when providing the EPM gas utilities.	One of the strategic focal points in gas utility provision is the operational excellence, which is reflected in the compliance with goals obtained in 2015 for Pressure index in individual pipelines, Odorization index, and Response to high priority events.	Total
Create awareness in 280 thousand people with education subjects.	In 2015, EPM developed education activities for customers and the community that had the participation of more than 341 thousand people.	Total
Intervene 10 thousand vulnerable families with the Savings Culture and Legality Plan.	EPM implemented the program "Familias Ciudadanas" (Civic families), with 450 activities that benefited 13,714 people, and the approach of reliable, successful, and affective families.	Total
Water and sanitation subsidiary companies		
Perform the required actions to provide a service with quality and opportunity, reducing risk to users.	<p>Positive results were achieved in continuity of water supply and sewerage service provision indicators in all regions where EPM group is present, especially in Aguas de Malambo where the indicator passed from 37.50% to 45.81%.</p> <p>All companies obtained lower water quality risk index (WQRI) indicators than the maximum allowed by law (5%).</p> <p>Aguas de Urabá participated in the municipality of Turbo's Distrito Sur (South District) project formulation, approved by the Ministry of Housing, City and Territory, with a value close to COP 22 billion. This project will allow to increase sewerage coverage from 29% to 67%.</p> <p>This Group subsidiary company started the construction of two deep wells in the municipality of Turbo, as an alternative source during dry seasons.</p>	Total
Perform the actions required to provide a service with quality and timeliness, reducing risks to users.	<p>From January 2015, Emvarias started waste disposal in the Altair cell, intervening 22 ha of the 382 ha that make up La Pradera landfill, with a 5.5 millions m³ capacity for waste disposal.</p> <p>Likewise, it started the leachate treatment system construction in La Pradera landfill, while collection and transportation service was provided with a 50% renewed fleet, which guarantees availability, operational safety, quality, and compliance with users support.</p> <p>Quibdo's operation, supported by Aguas Nacionales, provided a 24 hours continuity of water supply service to 1,506 users, and 8.9 average hours to the city of Quibdo's users, as a result of investments in indoor networks assurance and change and replacement of distribution networks.</p>	Total

Goals for 2015	2015 Achievements	Compliance
Water and sanitation subsidiary companies		
Ticsa subsidiary company, Mexico: perform the actions required to provide a service with quality and timeliness, reducing risks to users.	Ticsa expanded the Quality Management System (9001) scope and was certified in operation and maintenance in the Acapatzingo plant.	Total
Energy subsidiary companies		
Perform the actions required to provide a service with quality and timeliness, reducing risks to users.	SAIDI indicator results were improved in all the companies of the Group where measured, with the exception of ESSA that showed an increase, from 28 in 2014 to 39 in 2015. SAIFI indicator results were improved in all the companies of the Group where measured, with the exception of EDEQ that showed a slight increase, from 13 in 2014 to 14 in 2015.	Total

Challenges

Challenges	Compliance year	Compliance indicator
EPM Group		
EPM Group energy companies in Colombia aim at reducing the energy loss (EL) indicator from 9.25% to 8% for the period 2015-2025.	2025	Loss indicator of network operator (LINO)
Reach 82.1 points in the customer satisfaction index and 78.2 points in the loyalty index.	2019	Satisfaction and loyalty indicators
EPM		
Water supply and sewerage services: perform 4 community brigades for risk reduction.	2016	Brigades performed/Brigades planned
Energy service: reduce SAIDI's value to 13.06 and SAIFI's to 6.39.	2016	SAIDI - Average interruption duration index SAIFI - Average interruption frequency index
Reduce indicator of losses as power network operator in EPM to 7.64%.	2016	Loss indicator of network operator (LINO)
By 2022, reach the top 3 within the Merco Empresas reputation study.	2022	Merco Empresas Study
Create awareness in 100 thousand users in issues such as efficient use, legal use, safety use, and consumption control that promote timely payment and legal connection to public utility services.	2016	Compliance with activities planned
Educate 60 thousand customers on bill interpretation and understanding (Cuéntame [Tell me] - payment document).	2016	Compliance with activities planned

Challenges	Compliance year	Compliance indicator
EPM		
In 2016, the "Uso seguro de la energía" (Safety Use of Energy) national campaign will continue in partnership with Asocodis, and with the Ministry of Mines and Energy support. Notices about safety use of energy will be published on the bill, and an article about safety use of energy will be published on the EPM Cuéntame (Tell me) newsletter. Around 77,885 Retie (Technical regulations for electrical installations) primers will be delivered to new users of electric power service.	2016	Compliance with activities planned
Perform 10 Government seminars, with the participation of 300 municipal administration officials of the department of Antioquia.	2016	Compliance with activities planned
Create awareness in 2 thousand people in public utility services subjects through the Acercamiento Empresarial (Business Approach) program.	2016	Compliance with activities planned
Benefit 5 thousand students from the "Cuidamundos en tu colegio" (Worldskeeper at your school) program.	2016	Compliance with activities planned
Water and sanitation subsidiary companies		
Keep water quality risk index (WQRI) lower than 5%, through the purification process control and management in all subsidiary companies, in order to preserve users' health.	2016	Water quality risk index (WQRI).
Aguas de Malambo: start the wastewater treatment plant construction in the municipality of Malambo.	2016	Work progress
Aguas de Urabá: increase continuity of water supply service to 84% in Urabá region.	2016	Continuity of service indicator.
Provide water supply service in Western Antioquia, with a 99.6% continuity. In Eastern Antioquia, with 99%. Increase continuity to 84% in Urabá.	2016	Continuity of service indicator.
Aguas de Occidente: obtain a loss rate per billed user (LRBU) value of 8.2 m ³ /user month.	2016	LRBU indicator
Aguas de Urabá: reduce average loss rate per billed user (LRBU) of the seven systems of the Urabá region to 13.77.	2016	LRBU indicator
Emvarias: start the leachate treatment system operation in La Pradera landfill.	2016	Leachate treatment system in operation.
Satisfaction and loyalty indices in EPM Group water and sanitation subsidiary companies: Aguas de Oriente - 85.1 and 72.5 Aguas de Occidente - 70.8 and 71.5 Aguas de Urabá - 55.1 and 65.6 Aguas de Malambo - 60.7 and 67.9	2019	Satisfaction and loyalty indicators.

Challenges	Compliance year	Compliance indicator
Water and sanitation subsidiary companies		
Emvarias: implement a new website that involves assistance and service for all the stakeholders.	2016	Website.
Emvarias: customized assistance to area managers in its area of influence. There will be 6 areas for managers to directly assist users.	2016	Fixed assistance points in the different areas.
Aguas del Oriente: enable users to pay the utilities bill online.	2016	Online payments.
Energy subsidiaries		
Achieving the following values regarding indicators of quality and continuity of the energy service:		
ESSA: Saidi 37.22 - Saifi 18.91	2016	Saidi, Saifi
CENS: Saidi 33.06 - Saifi 11.00	2016	Saidi, Saifi
EDEQ: Saidi 9.24 - Saifi 13.3	2016	Saidi, Saifi
CHEC: Saidi 26.33 - Saifi 24.62	2016	Saidi, Saifi
Eegsa: Saidi 3.59 - Saifi 2.56	2016	Saidi, Saifi
Delsur: Saidi 29.3 - Saifi 12.6	2016	Saidi, Saifi
ENSA: Saidi 15.04 - Saifi 8.4	2016	Saidi, Saifi
ESSA: achieving 12.06% in the indicator of energy losses.	2016	Indicator of losses of the network operator.
CENS: achieving 11.95% in the indicator of energy losses.	2016	Indicator of losses of the network operator.
CHEC: achieving 9.26% in the indicator of energy losses.	2016	Indicator of losses of the network operator.
EDEQ: achieving 8.55% in the indicator of energy losses.	2016	Indicator of losses of the network operator.
Eegsa: reducing the indicator of losses by 0.03% compared to that obtained in 2015.	2016	Reducing the indicator of losses.
Delsur: reducing the indicator of losses to 8.46% for 2016.		Indicator of losses of the network operator.
ENSA: reducir el indicador de pérdidas reguladas de 12.07% a 11.55%	2016	Indicator of regulated losses.
ESSA: approving the business plan for the construction of the new control center, in coordination with the Group's Integrated Control Center.	2017	Construction of the new control center.
Eegsa: reducing, by 10% compared to 2015, the indicator of injuries and disabilities, regardless of those occurring on the way to and from work.	2016	ILISI for the end of 2016.
ESSA: having an impact on 36,000 people through communication programs.	2016	People impacted.

Challenges	Compliance year	Compliance indicator
Energy subsidiaries		
CENS: introducing the Conoce tu consumo (Calculate your consumption) program to 20,000 users in three regionals.	2016	People impacted.
CHEC: training 35,000 customers through the educational strategies included in the Company's Education Plan.	2016	Report on the 2016 Company's Education Plan.
Eegsa: making 50 visits per year regarding the Iluminando mi comunidad (Illuminating my community) program, ensuring participation of 150 women in the Mejores familias (Better families) program, implementing the Accident Prevention program in 30 schools and 15 companies, and training 22 young people at the Lineman School.	2016	Compliance with planned activities.
Customer satisfaction and loyalty rates in the energy subsidiaries: CHEC - 80.4 and 72.8 ESSA - 77.5 and 73.8 EDEQ - 76.8 and 75.0 CENS - 79.6 and 75.6	2019	Customer satisfaction and loyalty rates.
Eegsa: keeping indicators of claims (or complaints) below the tolerance limit allowed (below 5%).	2016	Technical standards of the distribution service (abbreviated NTSD in Spanish).
CENS: implementing the Contact Center solution to improve the service provided through the telephone channel, improving its level of service.	2016	Contact Center solution implemented.
EDEQ: facilitating payment of bills for users, strengthening virtual channels. Enabling payments without using copies, to reduce the % of copies and vouchers which represent more than 60% of all transactions through the face-to-face channel.	2016	Implementation of the payment information system through the user identification number.
EDEQ: implementing the Online Advisor module to optimize customer service and waiting time.	2016	An advisor at the main office assisted, through Lync, by an advisor from another municipality with low workload.
CHEC: implementing the hotline #415 for customer service and procedure queries through a mobile phone from any mobile operator.	2016	Fully operation of the hotline #415 from any mobile operator.
Eegsa: boosting face-to-face assistance methods through the opening of an agency, two Eegsa customer service offices and new modalities through social networks.	2016	Opening of new customer service offices.
Eegsa: enhancement of the functions of Eegsa's mobile app.	2016	Number of functions to be incorporated into the app.

SAIDI - average interruption duration index (total interruption time, in hours, the average system user had no electric power provision during the period assessed).

SAIFI - average interruption frequency index (number of times an average system user has an interruption of the electric power service during the period assessed).

Related indicators

G4-EC8 - Significant indirect impacts, including the extent of impacts.

G4-PR2 - Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes.

G4-PR5 - Results of surveys measuring customer satisfaction.

G4-PR7 - Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.

G4-PR8 - Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.

G4-PR9 - Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.

G4-EU25 - Number of injuries and deaths involving the organization's assets, including legal sentences, settlements, and pending legal cases of diseases.

G4-EU28 - Average frequency of blackouts.

G4-EU29 - Average duration of blackouts.

G4-EU30 Average availability of generation plants, by energy source and by regulatory system.

G4-EN24 Total number and volume of significant spills.

EPM-04 Loss rate.

EPM-05 Customer service channels.

EPM-06 Grievance indicator.

Action: Quality and continuity of service

Quality of service comprises technical and commercial characteristics inherent to supply that must meet the expectations of users and the requirements of regulation and control entities. Continuity refers to how long the user has had the service.

Management in 2015

EPM supplied water suitable for human consumption. The water quality risk index (WQRI) highest value was 0.26%, significantly lower than the maximum allowed by law, which is 5%.

Continuity in service provision is highlighted in Aguas de Malambo, where continuity indicator increased from 37.50% to 45.81%.

Regarding the energy service, EPM Group in Colombia implemented optimal schemes of work by company, which has been improving quality and continuity indicators. The Eegsa company from Guatemala is highlighted. Its development is significantly higher in quality and continuity indicators, since the average values over the last three years are 3.9 for average interruption duration index (SAIDI) and 2.7 for average interruption frequency index (SAIFI).

In EPM, water service continuity index was 99.94% in 2015, higher than the 99.7% set goal, maintaining the service provision above what is defined by regulations.

Service pressures increased in the west of Antioquia. Infrastructure works were developed in Santa Fe de Antioquia to improve continuity for rural customers.

Emvarias provided services of waste collection and disposal at La Pradera landfill, with 100% continuity. This landfill benefits the inhabitants of more than 25 municipalities of Antioquia.

In 2015, EPM replaced and upgraded equipment in substations in order to improve reliability of energy service in Antioquia.

EPM Group energy companies improved SAIDI indicator results in 2015, with the exception of ESSA that showed an increase, from 28 in 2014 to 39 in 2015. In order to improve these results, ESSA started a service quality improvement project in 2015, with an investment of COP 5,880 millions until 2016.

SAIFI indicator results were improved in all the companies of the Group where it is measured, with the exception of EDEQ that showed a slight increase: from 13 in 2014 to 14 in 2015.

In 2015 and according to what is required by regulations, EPM gas utility had 100% compliance with ELSI (Equivalent length of service interruption), PIIP (Pressure index in individual pipeline), and OI (Odorization index) indicators. RRTS (Response rate to technical support) indicator was reconfigured to Response to high priority events indicator, in order to be present in high priority events in less than one hour. In 2015, a 97% result was obtained.

Quality and continuity of EPM water supply service

Indicator	2013	2014	2015
Continuity of service	99.93%	99.90%	99.94%
Quality supply index (QSI)			
Medellín	0.05%	0.01%	0.03%
Copacabana	0.06%	0.02%	0.07%
Girardota	0%	0.02%	0.05%
La Estrella	0.05%	0.03%	0.10%
Caldas	0%	0%	0.13%
Barbosa	0%	0%	0.05%
Sabaneta	0.05%	0.03%	0.26%
Envigado	0.03%	0.01%	0.09%
Bello	0.01%	0.04%	0.02%
Itagüí	0.01%	0%	0.03%

Source: Vice Presidency of Water and Sanitation

WQRI (Water quality risk index) is calculated in accordance with the provisions of Decree 1575 and Resolution 2115 of 2007 by the Ministry of Social Protection in Colombia. A 5% maximum value is allowed and it is established that if the obtained value is lower than 5%, water has no risk. The Ministry states that control and monitoring must continue within this range of values and water can be declared suitable for human consumption.

Quality and continuity of EPM energy service

Indicator	2013	2014	2015
SAIDI	16.01	17.03	15.22
SAIFI	8.20	7.94	7.26

Source: Vice presidency of Power Transmission and Distribution.

SAIDI - average interruption duration index (total interruption time, in hours, the average system user had no electric power provision during the period assessed).

SAIFI - average interruption frequency index (number of times an average system user has an interruption of the electric power service during the period assessed).

Quality and continuity of EPM gas utility

Indicator	2013	2014	2015
PIIP-Pressure index in individual pipelines	100%	100%	100%
OI - Odorization index	100%	100%	100%
RRTS - Response rate to technical support	100%	100%	N.A.
ELSI - Equivalent length of service interruption	0	0	0
RHPE - Response to high priority events	N.A.	N.A.	97%

Source: Vice Presidency of Gas

EPM reconfigured RRTS indicator to RHPE indicator, Response to high priority events, because it is thought to be more relevant.

Service quality and continuity - Water and sanitation subsidiaries

Company/Indicator	2013	2014	2015
Aguas del Oriente			
Continuity of service	100%	100%	99.86%
Quality supply index			
El Retiro	0%	0%	0.01%
Aguas del Occidente			
Continuity of service	99.50%	99.50%	99.63%
Quality supply index			
Sopetrán	0%	0%	0%
San Jerónimo	0%	0.06%	0%
Santa Fe de Antioquia	0%	0.09%	0.24%
Olaya	0.67%	0.63%	0%
Aguas de Urabá			
Continuity of service	89.20%	83.90%	77.52%
Quality supply index			
Apartadó	0.12%	0%	0%
Turbo	0.95%	0.48%	1.45%
Chigorodó	0.04%	0.19%	0%
Carepa	0.14%	0.45%	0.06%
Mutatá	0%	0%	0%
El Reposo	0%	0%	0%
Bajirá	0%	0.53%	0%

Service quality and continuity - Water and sanitation subsidiaries

Company/Indicator	2013	2014	2015
Aguas de Malambo			
Continuity of service	29.70%	37.50%	45.81%
Quality supply index			
Malambo	0%	0%	0%
Emvarias			
Continuity of service	N.D.	100%	100%
Opportunity in service provision	N.D.	100%	100%
Quality in service provision	N.D.	4.60	4.44
Ticsa			
Continuity of service	N.D.	N.D.	99.60%
Opportunity in service provision	N.D.	N.D.	100%
Quality in service provision	N.D.	N.D.	100%

Source: Vice Presidency of Water and Sanitation.

WQRI (Water quality risk index) is calculated in accordance with the provisions of Decree 1575 and Resolution 2115 of 2007 by the Ministry of Social Protection. A 5% maximum value is stated and if the obtained value is lower than 5%, water has no risk.

Metal concentration in water was found in the municipality of Turbo, affecting quality indicator in comparison to 2014. It was difficult to remove the pollutant, so continuity of service was equally affected. Aguas de Urabá remedied this situation with the plant optimization by changing the filter material, applying polymers, and expanding the chlorination system.

Aguas de Malambo increased water production capacity by setting in motion the new purification plant El Tesoro. This had a positive effect on the continuity of service indicator.

Emvarias provides service every day and following the defined schedule. It has 100% standard compliance because service to users is always lower than 24 hours. Quality indicator is obtained by means of a perception survey made to citizens.

In Ticsa, service quality is measured in all the wastewater treatment plants. Laboratory tests are performed to verify that treated water quality meets the standard agreed in the contract of service.

Environmental events and contingencies

Highest occurrence events that caused water pollution and optimal operations of water supply service infrastructure, both in EPM and some subsidiary companies, were the following: increase in volumes of chlorine for water purification in Doña María watershed, civil construction alternative to the raw water pipe in San Antonio de Prado, establishment of opencast debris landfill in La Mangualá watershed, decrease of water volumes due to drought in Turbo and Apartadó water supplies, and fish kill in Pantanillo river. Measures for these cases were supported in the contingency management procedures defined for the different processes, as well as community and interinstitutional management with different environmental authorities.

Among management measures, the following are included: implementation of treatment and control measures defined by the guidelines for environmental emergency and dielectric mineral oil spill primary care, systems review and maintenance, polluted material collection and relocation for treatment according to the defined procedure.

In the case of natural gas leakages by operational process, they were repaired according to the procedures established by the Gas operations contingency plan; and community program "Llame antes de excavar" (Call before dig) was continued, in order to prevent system leakages caused by external breakdowns or excavations.

Hazardous substances

In 2015, damages occurred during electric shocks and rains, as well as 383.95 liters spill of dielectric oil used in EPM transformers during equipment transportation, dismantling, or maintenance activities.

Natural gas emissions, hydraulic oil spills, and mixture of water and hydrocarbons were reported as minor events in operations of energy transmission and distribution subsidiaries.

Quality and continuity of service - EPM Group energy subsidiary companies

Company/Indicator	2013	2014	2015
EPM			
Saidi	16.0	17.0	15.2
Saifi	8.2	7.9	7.3
CHEC			
Saidi	43.0	29.0	27.5
Saifi	31.0	27.7	25.6
ESSA			
Saidi	22.9	27.8	39.0
Saifi	24.1	25.6	18.0
CENS			
Saidi	42.0	42.2	32.5
Saifi	11.7	11.4	11.1
EDEQ			
Saidi	11.7	10.7	9.7
Saifi	15.8	13.1	13.7
Delsur			
Saidi	35.5	33.7	27.1
Saifi	19.8	14.7	14.0
Eegsa			
Saidi	3.9	4.1	3.7
Saifi	2.7	2.9	2.6
ENSA			
Saidi	21.4	20.5	15.7
Saifi	12.7	10.7	8.8

Source: Vice Presidency of Power Transmission and Distribution.

Saidi –average interruption duration index (total interruption time, in hours, the average system user had no electric power provision during the period assessed).

Saifi- average interruption frequency index (number of times an average system user has an interruption of the electric power service during the period assessed).

Related indicators

G4-EU28 - Average frequency of blackouts.

G4-EU29 - Average duration of blackouts.

Action: Risk Mitigation Brigades

Risk mitigation comprises a set of actions performed in the EPM water service universalization framework. Poor settlements sectors are intervened, and risk mitigation brigades are among the developed actions, in which the EPM employees willingly participate. These brigades comprise: characterization of sectors to be intervened, technical-hydraulic intervention, social and environmental intervention, composition of water community desks, and inter-institutional coordination.

Management in 2015

In 2015, EPM performed technical, social, and commercial activities to reduce risks in poor settlements and targeted at 1,100 houses, about 4 thousand families; 300 of them were intervened through three Risk Mitigation Community Brigades.

These brigades include technical actions to improve service to users and to reduce risks, such as: land registry of community networks, by sector and by house; diagnosis of formal and informal infrastructure of networks; design of alternative solutions; extension of unconventional community networks; repair of community networks and connections, both formal and informal; and repair, change, and installation of accessories inside the houses. Based on social work and commitment to community, rational consumption and reduction of waste of water were promoted, achieving families to have an average decrease of 13 m³/month for total consumptions fewer than 20 m³/month. Articulation of inter-institutional synergies is highlighted to achieve a comprehensive presence in territories of informality, with the participation of entities such as Emvarias and the National Army. 80 EPM volunteers participated in the 2015 brigades. Thanks to their commitment, they contribute to improve social conditions in those territories.

EPM Risk Mitigation Brigades

Indicator	2013	2014	2015
Number of brigades performed	1	4	3
Number of sectors covered	1	4	3
Number of houses served	45	240	300
Consumption decrease (m³/house/month)	10	11	13
Número de medidores comunitarios instalados	1	6	5
Investment (million COP)	30	80	70
Volunteers - EPM participating employees	60	70	80

Source: Vice Presidency of Water and Sanitation.

In 2013, the number of houses was fewer than the other two previous years because the contract started at the end of the year.

Related indicators

G4-EC8 - Significant indirect impacts, including the extent of impacts.

Action: Education for and communication with customers, users and the community

Communication with customers and users is handled through educational communication, marketing communication and communication due to scheduled disconnections. Educational communication regarding residential public utilities is developed by the EPM Group through awareness-raising, information and training solutions, using engagement tools based on knowledge of, recognition of and respect for our communities, their cultural aspects and everyday spaces, establishing the necessary partnerships with external entities and institutional and community leaders. Communication due to disconnections aims at minimizing inconvenience due to scheduled disconnection of services. Marketing communication includes different strategies such as advertising, sponsorship, sales promotion, public relations, among others, seeking to position the EPM Group's brand and its services.

Management in 2015

In 2015, EPM developed customer, user and community educational activities for 341,804 people, by means of face-to-face activities. In total, including mass dissemination, 1,677,393 people benefited from these activities. The investment was COP 3,463 million.

In 2015, the EPM Group invested, through its water supply and sanitation subsidiaries, COP 258 million in educational communication programs that benefited 117,305 people, and COP 7,388 million, through its energy subsidiaries, benefiting 1,264,464 people.

Companies of the EPM Group developed education programs for customers, users and the community to promote efficient, legal and safe use of public utilities, prevention of electrical risk, protection of water resources and the environment, trust in the processes of meter reading, portfolio management, loss recovery, understanding and interpretation of the bill, notices of scheduled service disconnections and awareness of customers obligations and rights.

Multiple strategies of engagement with different stakeholders were implemented, including: educational workshops, community meetings involving community action boards and community leaders and users, radio programs, recreational workshops with school students and inter-institutional partnerships, among others.

The programs developed by EPM in Antioquia in 2015 are as follows:

- Civic culture strategies through the Familias Ciudadanas (Families with civic awareness) program aimed at 13,714 people.
- 61,500 people benefited by the Cuidamundos en tu colegio (World's protectors in your school) strategy, which includes Cuidamundos por el agua (Water world's protectors), with the participation of 20 educational institutions and 30,000 students.
- 850 community leaders trained in public utilities.
- 193,801 users benefited from information provided regarding the processes of meter reading and billing, through the Lectura a tu medida (Customized meter reading) program.
- 2,783 employees of business customers trained on issues such as protection and efficient use of public utilities.
- The Customers Day and Camino al Barrio (On our way to the neighborhood) programs allowed to reach out to 21,700 people and provide them with educational concepts regarding public utilities.
- Social support on the programs of Prepayment electricity, Paga a tu medida (Pay According to Your Needs), Prepaid water, Somos and Non-Revenue Water, among others, for 8,300 people.
- World's Protector Mission EPM 60 years summoned the 16 districts and 5 small towns of Medellín for learning about the efficient, safe and legal use of public utilities through a program broadcast on television, with the direct participation of 23,756 people.

- Event on efficient use of public utilities and quality of water and cleaning of water storage tanks, with the participation of 43 companies. Certificate in cleaning of tanks and billing in public areas aimed at 30 administrators of residential complexes.

- National campaign for safe use of energy in partnership with Asocodis and 21 power distribution companies in Colombia, which was supported by the Ministry of Mines and Energy.
- Delivery of 46,200 booklets with the technical regulations for electrical installations to new users of electricity.

The policy framework for responsible advertising and the brand manuals remain the basis for definitions in marketing and institutional communication, especially in relation to the development of materials for promotion and dissemination, advertising campaigns, photographs, audiovisual media, events, brand activations and advertising connections. Under the guidelines of this framework, 60 strategies, from campaigns to events, were evaluated, obtaining an overall rating of 97%. During 2015, no complaints related to advertising strategies were reported.

Educational communication in EPM

Indicator	2013	2014	2015
People impacted by customer education programs	249,843	315,167	341,804
People impacted by educational communication - Energy (families)	2,000,000	2,053,020	2,221,477
People impacted by educational communication - Water	6,880,688	11,749,903	780,220
People impacted by educational communication - Gas	N.D.	6,869	18,000
Investment in customer education (COP million)	1,487	1,648	2,018
Investment in educational communication Energy (COP million)	520	1,371	600
Investment in educational communication Water (COP million)	538	900	320
Investment in educational communication Gas (COP million)	882	566	525
Total number of people impacted	7,630,531	12,585,194	1,677,393
Total investment COP million	3,428	4,485	3,463

Source: Vice Presidencies of Water and Sanitation, Power Transmission and Distribution, Gas, Commercial

In 2015, educational communication regarding water aimed at achieving the widest possible coverage of people impacted through directed educational activities. No communication campaigns were conducted through mass media.

In 2015, the number of people benefiting from educational communication activities regarding energy is perceived as the total number of users; however, the national campaign for safe use of energy reached a greater number of people because it was conducted through mass media.

Educational communication - Water supply and sanitation subsidiaries

Indicator	2013	2014	2015
Aguas de Occidente			
People impacted by customer education programs	4,670	4,800	5,000
People impacted by educational communication - Water	3,750	3,500	4,000
Investment in customer education (COP million)	46	50	50
Investment in educational communication Water (COP million)	12	15	14
Total number of people impacted	8,420	8,300	9,000
Total investment COP millions	58	65	64
Aguas del Oriente			
People impacted by customer education programs	381	318	206
People impacted by educational communication - Water	14,800	15,600	17,148
Investment in customer education (COP million)	14	9	12
Investment in educational communication Water (COP million)	0	0	-
Total number of people impacted	15,181	15,918	17,354
Total investment COP millions	14	10	12
Aguas de Urabá			
People impacted by customer education programs	14,916	20,970	32,000
People impacted by educational communication - Water	18,300	25,920	26,510
Investment in customer education (COP million)	39	57	32
Investment in educational communication Water (COP million)	25	31	51
Total number of people impacted	33,216	46,890	58,510
Total investment COP millions	64	88	83
Aguas de Malambo			
People impacted by customer education programs	750	1,123	1,350
People impacted by educational communication - Water	872	730	1,070
Investment in customer education (COP million)	1	2	1
Investment in educational communication Water (COP million)	2	2	2
Total number of people impacted	1,622	1,853	2,420
Total investment COP millions	3	4	3

Educational communication - Water supply and sanitation subsidiaries

Indicator	2013	2014	2015
Emvarias			
People impacted by customer education programs.	N.D.	800	684
People impacted by educational communication - Water	N.D.	83,808	29,337
Investment in educational communication (COP million)	N.D.	N.D.	97
Total number of people impacted	N.D.	84,608	30,021
Total investment COP millions	N.D.	N.D.	97

Source: Vice Presidency of Water and Sanitation

Educational communication in energy subsidiaries

Company/Indicator	2013	2014	2015
CHEC			
People impacted by customer education programs.	37,842	51,051	33,626
Investment in customer education (COP million)	640	849	280
Investment in educational communication Energy (COP million)	30	50	20
Total number of people impacted	37,842	51,051	33,626
Total investment COP million	670	899	300
ESSA			
People impacted by customer education programs	15,436	17,748	16,793
People impacted by educational communication - Energy (families).	76,036	75,479	14,830
Investment in customer education (COP million)	417	442	446
Investment in educational communication Energy (COP million)	1,269	1,604	347
Total number of people impacted	91,472	93,227	31,623
Total investment COP million	1,686	2,046	793
CENS			
People impacted by customer education programs	85,581	83,123	49,506
People impacted by educational communication - Energy (families).	342,324	332,429	198,024
Investment in customer education (COP million)	888	754	881
Total number of people impacted	427,905	415,552	247,530
Total investment COP million	888	754	881
EDEQ			
People impacted by customer education programs	37,277	34,318	14,628
People impacted by educational communication - Energy (families).	N.D.	N.D.	60,860
Investment in customer education (COP million)	N.D.	N.D.	160
Investment in educational communication Energy (COP million)	140	114	172
Total number of people impacted	37,277	34,318	75,488
Total investment COP million	140	114	332
Delsur			
People impacted by customer education programs	N.D.	350,000	406,650
People impacted by educational communication - Energy (families).	N.D.	N.D.	N.D.
Investment in customer education (COP million)	N.D.	744	929
Investment in educational communication Energy (COP million)	N.D.	N.D.	N.D.
Total number of people impacted	N.D.	350,000	406,650
Total investment COP million	N.D.	744	929

Educational communication in energy subsidiaries.

Company/Indicator	2013	2014	2015
Eegsa			
People impacted by customer education programs	N.D.	N.D.	146,191
People impacted by educational communication - Energy (families).	N.D.	N.D.	N.D.
Investment in customer education (COP million)	N.D.	N.D.	3,344
Investment in educational communication Energy (COP million)	N.D.	N.D.	N.D.
Total number of people impacted	N.D.	N.D.	146,191
Total investment COP million	N.D.	N.D.	3,344
ENSA			
People impacted by customer education programs	N.D.	282,676	380,872
People impacted by educational communication - Energy (families).	N.D.	N.D.	N.D.
Investment in customer education (COP million)	N.D.	N.D.	808
Investment in educational communication Energy (COP million)	N.D.	N.D.	N.D.
Total number of people impacted	N.D.	282,676	380,872
Total investment COP million	N.D.	N.D.	808

Fuente: Vice Presidency of Power Transmission and Distribution.

Action: Loss Management

Loss control and reduction programs in the water supply service are aimed at reducing the waste of the water resources by controlling and preventing leaks and through commercial activities and social interventions to promote responsible use by users and the community.

In the energy and gas services, programs include education, access to and purchasability value offers and technologies to minimize vulnerability of the infrastructure concerning fraudulent actions.

Management in 2015

EPM registered 7,351 customers to the prepaid service in 2015, which allowed them to regularize the service. 136 home visits were made and 160 workshops were offered to people engaged in the illegal practice of informal car washing, and EPM continued to consolidate the inter-institutional working group as a mechanism of synergy, where the institutional range of programs is articulated with the informal enrollees and their families.

In 2015, in Aguas de Urabá, the loss rate per billed user decreased by 5.95 points, going from 20.88 to 14.93, which allowed to recover 61,048 m³ of water, refinance COP 1.001 billion of portfolio and restore the water supply service to 909 users and the sewerage service to 607 users whose services had been disconnected.

The energy companies of the EPM group in Colombia defined, as a goal of the network operator (NO) for the period 2015-2025, a reduction in the energy loss rate (LR) from 9.25% to 8.00%. It means recovering 183 GWh in a period of 5 years and then maintaining the loss rates achieved by using new technologies and implementing various commercial activities.

In 2015, EPM conducted optimization works in 76 pressure-regulating stations in the Valle de Aburrá as well as 18,894 verification visits to search for leaks, positioning and normalization of fraud in the water supply networks. The company registered 7,351 users to the prepaid service in order to regularize the service, replaced 101,053 meters and addressed 66 leaks in the network infrastructure and 542 leaks in the users' connections.

Water supply subsidiaries of the EPM Group developed commercial and technical strategies aimed at user safety and recovery of water losses.

In Urabá, the loss rate per billed user decreased by 5.95 points, as a result of the implementation of the Commercial Losses Management Plan, which included actions such as systematic searches of leaks, meter replacement, leaks detected through camera in poles and implementation of a fluid fraud circular in coordination with five Mayor's Offices in the region of Urabá, which has allowed to bring to court consumers who damage the water supply and sewerage structure.

In the municipality of Malambo, in Atlántico, installation of 2,926 micrometers in different sectors of the municipality and detection of illegal connections to the water supply service are highlighted. In Aguas de Occidente, replacement of 400 meters and, in Aguas del Oriente, implementation of night rounds for leak detection and intervention; however, because of the deterioration of the networks in some areas, there was an increase in damages in 2015.

EPM implemented the Comprehensive Plan on Energy Losses in 2015 with the launch of the Guardianes de los servicios públicos (Guardians of

public utilities) program. One of the most important components is the Intelligence Center as a means to promote the culture of legality, facilitate access to and purchasability of services and protect the infrastructure from fraudulent behaviors.

In 2015, the gas loss rate was 3.69%, meeting the goal which was 3.69%, as a result of the management carried out with Transmetano in the Tasajera node and improvement in the analysis of users' consumption data.

Actions concerning informal car washes - EPM

Indicator	2013	2014	2015
Home visits	590	521	136
Socio-economic surveys	204	195	223
Workshops	241	343	160
Physical intervention	17	21	7
New meters installed	10	18	11

Source: Vice Presidency of Water and Sanitation.

Water loss management in EPM

Indicator	2013	2014	2015
Water loss rate per billed user - WLRBU	N.D.	7.20	7.15

Source: Vice Presidency of Water and Sanitation.

Energy loss management in EPM

Indicator	2013	2014	2015
Loss rate of the network operator in EPM (LRNO)	7.97	7.79	8.15

Source: Vice Presidency of Power Transmission and Distribution.

Gas loss management in EPM

Indicator	2013	2014	2015
Gas loss indicator (%)	N.D.	2.1%	3.7%

Source: Vice Presidency of Gas.

Loss management in water supply subsidiaries.

Company/Indicator	2013	2014	2015
Aguas de Occidente			
Water loss rate per billed user - WLRBU	9.24	8.35	8.84
Aguas de Oriente			
Water loss rate per billed user - WLRBU	3.58	2.64	4.58
Aguas de Urabá			
Water loss rate per billed user - WLRBU	22.13	20.88	14.93
Aguas de Malambo			
Water loss rate per billed user - WLRBU	18.02	18.41	27.58

Source: Vice Presidency of Water and Sanitation.

Loss management in energy subsidiaries

Company/Indicator	2013	2014	2015
CHEC			
Loss rate of the regulated network operator (LRRNO)	9.29%	9.57%	9.40%
ESSA			
Loss rate of the regulated network operator (LRRNO)	12.71%	12.09%	12.78%
CENS			
Loss rate of the regulated network operator (LRRNO)	11.74%	11.87%	12.50%
EDEQ			
Loss rate of the regulated network operator (LRRNO)	9.09%	8.51%	8.47%
Delsur			
Loss rate of the network operator (LRRNO)	8.87%	8.77%	8.69%
Eegsa			
Loss rate of the network operator (LRRNO)	6.36%	5.71%	7.35%
ENSA			
Loss rate of the network operator (LRRNO)	10.12%	10.21%	10.65%

Source: Vice Presindency of Power Transmission and Distribution.

In the international subsidiaries, the indicator was calculated using the methodology of the Energy and Gas Regulatory Commission - CREG in Colombia, for comparative purposes.

Related Indicators

EPM-04 Loss Rate



Action: Incidents and Grievances

The responsibility for the product extends to customer service and, if needed, to compensation for incidents causing harms to people or their goods and fixtures, caused by eventualities related to the provision of public utilities.

Management in 2015

The EPM Group aims at guaranteeing the safety of people who are involved in the energy service value chain; the adopted mechanism to compensate the electrical harm is socially responsible in case users get harmed by the service provision.

In 2015 EPM filed 39 claims or grievances due to incidents of people's injuries or deaths caused by the service provision; 10 fewer than in 2014. Likewise, 33 incidents of this type were closed in favor of EPM and 7 incidents of people's injuries in favor of the claimants. 1,328 claims or grievances were filed due to harms to goods or fixtures; 802 incidents of this type were closed in favor of EPM and 569 in favor of the claimants —these figures include claims or grievances filed in previous years and closed in 2015. The number of resources filed by customers in 2015, exercising their right to request the review of the decision made by the company, was 6,199; 168 more than in 2014.

Of 3,018 grievances filed to Emvarias, only 5 appealed before the Superintendence of Residential Public Utilities, which were resolved in favor of the company; in 2015, no grievances caused by harms to people or fixtures were filed.

The EPM Group was not fined due to non-compliance of advertising or commercial communication regulations in any of the companies.

Incidents and grievances due to service provision - EPM

Indicator	2013	2014	2015
Incidents or grievances due to harms, injuries or deaths of people, filed in the year.	118	49	39
Incidents or grievances due to harms, injuries or deaths of people, closed in the year in favor of EPM.	31	35	32
Incidents or grievances due to harms or injuries to people, closed in the year in favor of the claimant.	27	6	7
Incidents due to deaths in the year in favor of claimant.	5	8	0
Incidents or grievances due to harms of fixtures, filed in the year.	416	1,641	1,328
Incidents or grievances due to harms of fixtures, closed in the year in favor of EPM.	104	858	802
Incidents or grievances due to harms of fixtures, closed in the year in favor of the claimant.	272	538	569
Number of resources related to the service provision, filed by customers.	4,014	6,031	6,199
Number of fines due to regulatory non-compliance (filed by the Superintendency of Residential Public Utilities).	26	30	12
Number of fines due to regulatory non compliance (filed by the Superintendency of Industry and Commerce).	0	0	0
Number of fines due to regulatory non-compliance (filed by the Financial Superintendency).	0	0	0
Number of fines due to regulatory non-compliance (filed by the Office of the Comptroller).	0	0	0
Number of fines due to regulatory non-compliance (filed by the other entities).	6	5	0
Number of incidents due to regulatory non-compliance in marketing communication.	0	0	0
Amount of fines due to regulatory non-compliance (million COP).	295	109	30

Source: Vice Presidency and General Secretariat.

Values of incidents or grievances reported in 2013 did not include incidents due to electrical equipment, which were included in 2014 and 2015.

Incidents and grievances due to service provision in water and sanitation subsidiary companies

	Aguas de Oriente		Aguas de Occidente		Aguas de Urabá		Aguas de Malambo		Emvarias	
Indicator	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Incidents or grievances due to harms, injuries or deaths of people, filed in the year.	0	0	0	0	0	0	0	0	0	5
Incidents or grievances due to harms, injuries or deaths of people, closed in the year in favor of EPM.	0	0	0	0	0	0	0	0	0	0
Incidents or grievances due to harms or injuries to people, closed in the year in favor of the claimant.	0	0	0	0	1	0	0	0	0	1
Incidents due to deaths in the year in favor of claimant.	0	0	0	0	1	0	0	0	0	0
Incidents or grievances due to harms of fixtures, filed in the year.	0	0	0	0	0	0	1	0	0	0
Incidents or grievances due to harms of fixtures, closed in the year in favor of EPM.	1	0	0	0	0	0	1	0	39	0
Incidents or grievances due to harms of fixtures, closed in the year in favor of the claimant.	0	0	0	0	0	0	1	0	0	0
Number of resources related to the service provision, filed by customers.	14	14	5	30	28	30	36	0	0	5
Number of fines due to regulatory non-compliance (filed by the Superintendency of Residential Public Utilities).	0	0	0	0	4	1	3	3	0	0
Number of fines due to regulatory non compliance (filed by the Superintendency of industry and Commerce).	0	0	0	0	0	0	1	0	0	0
Number of fines due to regulatory non-compliance (filed by the other entities).	0	0	0	0	1	0	1	0	1	0
Amount of fines due to regulatory non-compliance (million COP).	0	0	0	0	167	0	11	5	1,957	0

Source: Vice Presidency of Water and Sanitation.

The "Number of resources related to the service provision filed by customers in 2014" for Aguas de Urabá was corrected, since, by mistake, all the petitions had been reported and not only the requests for reconsideration.

Information provided for Emvarias in 2014 regarding incidents or harms to fixtures was corrected, due to a typing mistake. This type of grievances did not occur in 2014 or 2015.

The value of the fine for non-compliance of regulations for Emvarias in 2014 corresponds to the fine imposed by Corantioquia due to leachate spills to the Porce River. This aspect is currently being handled by the company through the "Leachate treatment system in the La Pradera landfill" project.

Incidents and grievances due to service provision in energy and sanitation subsidiary companies

Indicator	CHEC		ESSA		CENS		Delsur		Eegsa	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Incidents or grievances due to harms, injuries or deaths of people, filed in the year.	12	8	N.D.	5	53	2	0	0	0	43
Incidents or grievances due to harms, injuries or deaths of people, closed in the year in favor of EPM.	0	0	N.D.	5	40	2	0	0	0	0
Incidents or grievances due to harms or injuries to people, closed in the year in favor of the claimant.	1	0	N.D.	0	13	0	0	0	0	0
Incidents due to deaths in the year in favor of claimant.	3	1	N.D.	0	0	0	0	0	0	1
Incidents or grievances due to harms of fixtures, filed in the year.	594	399	1,052	782	0	206	173	163	0	169
Incidents or grievances due to harms of fixtures, closed in the year in favor of EPM.	400	289	495	397	89	87	111	115	0	74
Incidents or grievances due to harms of fixtures, closed in the year in favor of the claimant.	194	97	557	365	202	56	62	48	0	98
Number of resources related to the service provision, filed by customers.	688	517	652	852	234	332	0	0	118	61
Number of fines due to regulatory non-compliance (filed by the Superintendence of Residential Public Utilities).	2	4	4	12	1	1	0	0	0	N.R.
Number of fines due to regulatory non compliance (filed by the Superintendence of industry and Commerce).	0	0	0	0	0	0	0	0	0	N.R.
Number of fines due to regulatory non-compliance (filed by the other entities).	1	1	0	0	0	0	0	N.R.	2	3
Amount of fines due to regulatory non-compliance (million COP).	509	364	10	0	0	105	0	0	0	N.R.

Source: Power Transmission and Distribution..

Related indicators

G4-PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes.

G4-PR7 - Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.

G4-PR9 - Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.

G4-EU25 Number of injuries and deaths involving the organization's assets, including legal sentences, settlements, and pending legal cases of diseases.

Action: Customer Satisfaction

EPM, and nowadays EPM Group at the national level, uses several instruments to measure satisfaction and loyalty from its customers and evaluate their perceptions, engagement, needs, experiences with products and services, always focused on the different segments of established customers.

The results are used to take corrective and preventive actions, improve processes, engage and bond with customers, as well as adjust value offers according to each segment needs.

These instruments are: Index of Satisfaction, Index of Loyalty, Satisfaction Indicator with customer service channels, Grievance Indicators, and Reputation Indicators.

Management in 2015

In 2015, the subsidiary company Eegsa was the most efficient electricity distributor with more than 100,000 customers in Guatemala, and an average in the rating of the Survey on Perception of Quality 2015 of 81.90%.

Indexes of Satisfaction and Loyalty:

The index of satisfaction of the EPM Group remained steady. In 2015 it was 78.7. Several opportunities to improve the product, the costumer service, and the communication with the different customer subsegments were found. The excellence in providing the energy service stands out. Customers consider that they have a great quality service; the service cost-benefit perception remains a challenge for the EPM Group. The loyalty Indicators for the national subsidiaries continue in medium and medium-high levels.

In 2015, investments such as the setting in motion of the plant Malambo were made, which impacted in a very positive way the customer satisfaction and loyalty. Additionally, positive influence is observed in the results of satisfaction, thanks to the process standardization in service channels and lines, and to the bill standardization and integration.

The value of the index of satisfaction in 2015 for EPM was 80.6. Opportunities to improve the service times and an easier access, both in hotlines and offices, were identified. In 2015, the index of loyalty for EPM was 76.7. The confidence in the reading process should increase, especially in consistency between consumption and billed values.

Results of 2015 have been used to take actions to further improve loyalty and satisfaction, and to set goals for 2016.

Satisfaction indicators with customer service channels, complaints and claims:

EPM met the customer satisfaction goal, measured through the customer service channels. In 2015, there were values higher than 9.0, with the exception of the satisfaction with bills, which was 8.9. This year a new bill design for customers was delivered.

EPM improved the number of complaints regarding the installations, and the number of claims regarding the utility bills compared to 2014. Only 6.5 customers out of each 10,000 presented a complaint attributable to the company. Only 2.4 bills out of each 10,000 had to be adjusted for reasons attributable to the company.

Aguas del Oriente enabled the contact center in 2015, hence increasing the responsiveness and the traceability of customer requirements. Aguas de Urabá improved in complaints and claims in 2015 by taking actions such as home visits to explain bills and how to read them, and the publication on the website of documents on rates. On the other side, complaints increased for Aguas de Malambo due to the increasing pressure in networks, which caused potable water leakings in pipes in poor condition.

Reputation:

The EPM Group performs measurements of corporate reputation of the companies every two years before the stakeholders and special groups, through an ad-hoc study that generates the Global Reputation Index or GRI. The last measurement was in 2014.

In 2015, EPM continued working in reputation management in three material aspects: access to and purchasability of public utilities, transparency in contracts, and transparency and disclosure of information. A brand strategy is employed focusing on familiarity and favorability with stakeholders, and a style of engagement based on promoting brand and corporate values such as confidence, warmth, human sense and responsibility.

In addition, EPM uses the study of Merco Empresas as reputation assessment. In 2015, it climbed one position to the top 5 and ranked at 4, which allows us to progress in the goal of being among the top 3 with the best reputation in the country by 2022.

Satisfaction and Loyalty - EPM

Service	Index of Satisfaction		General Index of Loyalty	
	2014	2015	2014	2015
Business Group	79.2	78.7	N.D.	N.D.
EPM in General	80.4	80.6	79.6	76.7
EPM Distribution	87.6	87.0	N.D.	N.D.
EPM Water Supply	88.4	86.4	N.D.	N.D.
EPM Wastewater	87.2	86.9	N.D.	N.D.
EPM Gas	91.4	88.8	N.D.	N.D.
EPM Commercial Services	75.0	73.5	N.D.	N.D.
Complaints	63.5	61.0	N.D.	N.D.
Claims	68.0	61.7	N.D.	N.D.
Customer service offices	82.3	82.0	N.D.	N.D.
Customer service line	78.7	81.3	N.D.	N.D.
Bills	83.6	82.1	N.D.	N.D.

Source: Commercial Vice Presidency.

The EPM Group calculates the index of satisfaction based on the Satisfactor Loyalty Optimizer methodology by Ipsos Napoleon Franco company, applied in the satisfaction-loyalty study for the national level. Since 2014, the Group evaluates the new loyalty model, focused on dimensions of attitude and behavior, in order to generate customer engagement and bond by measuring his/her perception of the characteristics of the services provided, their factors and attributes.

Satisfaction and Loyalty of the Water and Sanitation Subsidiaries

Companies	Index of Satisfaction		General Index of Loyalty	
	2014	2015	2014	2015
Aguas de Oriente	86.2	83.6	76.0	71.0
Aguas de Occidente	79.0	69.3	73.9	70.0
Aguas de Urabá	59.1	53.6	65.7	64.1
Aguas de Malambo	48.5	59.2	58.8	66.4

Source: Commercial Vice Presidency.

Satisfaction indicators are not for every service, but by company as a whole.

Emvarias still does not measure the index of satisfaction with the satisfaction and loyalty study used for the other Group companies at the national level.

Satisfaction and Loyalty - Energy Subsidiaries

Companies	Index of Satisfaction		General Index of Loyalty	
	2014	2015	2014	2015
CHEC	81.8	78.9	76.1	71.3
EDEQ	78.8	75.3	74.2	73.5
ESSA	76.5	76.0	71.7	72.3
CENS	79.7	78.1	73.8	74.1

Source: Commercial Vice Presidency.

Satisfaction indicators are not for every service, but by company as a whole.

Satisfaction with the EPM customer service channels

Channels	EPM		
	2013	2014	2015
Face-to-face channel	9.1	9.2	9.1
Customer service line	9.1	9.1	9.2
Satisfaction with the billing process	9.1	9.2	8.9
Satisfaction with service in the receivables management process	9.3	9.3	9.2

Source: Commercial Vice Presidency.

Satisfaction with customer service channels is measured through a bimonthly survey to find out the customer perception about Customers Service, Billing and Management of Receivables, evaluating different attributes.

This survey is performed to the customers who go to the offices, call the hotline, make a financing and are up to date with the payment of the bills (to assess their perception of the bill).

Satisfaction with the Customer Service Channels - Water and Sanitation Subsidiaries

Companies/Channels	2013	2014	2015
Aguas de Occidente			
Face-to-face channel	9.2	9.2	8.7
Customer service line	8.9	9.0	8.9
Satisfaction with the billing process	8.1	8.5	8.1
Satisfaction with service in the receivables management process	N.A.	N.A.	N.A.
Aguas de Urabá			
Face-to-face channel	8.8	8.7	8.7
Customer service line	9.0	8.9	8.9
Satisfaction with the billing process	8.2	8.2	8.2
Satisfaction with service in the receivables management process	8.7	8.6	9.0

Source: Vice Presidency of Water and Sanitation.

Emvarias, Aguas de Oriente and Aguas de Malambo have not yet implemented the survey standardized with the other water subsidiaries.

Ticsa does not provide residential services. The only complaints channel it has is the transparent communication tool and the trusteeship meetings. It is performed to the customers who go to the offices, call the hotline, make a financing and are up to date with the payment of the bills.

Satisfaction with Customer Service Channels - Energy Subsidiaries

Companies/Channels	2013	2014	2015
CHEC			
Face-to-face channel	9.1	9.2	9.3
Customer service line	9.3	9.4	9.5
Satisfaction with the billing process	9.1	9.3	9.2
ESSA			
Face-to-face channel	8.9	8.8	8.7
Customer service line	8.8	8.9	8.9
Satisfaction with the billing process	8.3	8.3	8.6
CENS			
Face-to-face channel	9.4	9.1	9.1
Customer service line	9.0	9.2	9.0
Satisfaction with the billing process	8.5	8.3	8.6
EDEQ			
Face-to-face channel	9.2	9.2	9.0
Customer service line	9.0	9.2	9.3
Satisfaction with the billing process	9.4	9.3	9.4

Source: Vice Presidency of Power Transmission and Distribution.

The national energy service companies have no measurement of satisfaction regarding the receivables process.

The Central American companies have not yet implemented the survey to measure satisfaction with service channels, standardized with the national companies.

Complaints and claims

Indicator	2013	2014	2015
EPM complaints	0.01%	7.3	6.5
EPM claims	0.03%	2.5	2.4

Source: Commercial Vice Presidency

Grievance indicators had formulation changes since 2014.

The complaints indicator measures the ratio of the number of complaints whose responsibility is for EPM, versus the number of total customers, out of every 10,000. In 2014 this new type of measurement began, since before 2014 the number of complaints was measured against the number of operations, out of 100.

The claims indicator measures the ratio between the number of amendments to the bill for reasons attributable to the company, versus the total number of bills issued out of every 10,000 customers. Before this year, it was measured out of every 100 customers.

Claims and Complaints - Water and Sanitation Subsidiaries

Companies/Indicator	2014	2015
Aguas de Occidente		
Complains	6.1	4.1
Claims	3.0	4.5
Aguas del Oriente		
Complains	5.4	6.7
Claims	1.4	8.5
Aguas de Urabá		
Complains	18.6	10.7
Claims	15.8	8.7
Aguas de Malambo		
Complains	11.9	23.3
Claims	14.9	14.6
Emvarias		
Complains	N.D.	8.7
Claims	N.D.	2.5

Source: Vice Presidency of Water and Sanitation.

The complaints indicator measures the ratio of the number of complaints whose responsibility is for EPM, versus the number of total customers, out of every 10,000. The claims indicator measures the ratio between the number of amendments to the bill for reasons attributable to the company, versus the total number of bills issued out of every 10,000 customers.

In 2013 the EPM Group subsidiaries had not a standardized measurement of grievance indicators.

Emvarias started reporting this indicator in 2015. The claims indicator measures the ratio between the number of amendments to the bill for reasons attributable to the company, versus the total number of bills issued out of every 10,000 customers. Before this year, it was measured out of every 100 customers.

Claims and Complaints - Water and Sanitation Subsidiaries

Companies/Indicator	2013	2014	2015
CHEC			
Complains	0.1%	1.87	1.09
Claims	4.90	4.09	3.65
ESSA			
Complains	0%	0.09	2.24
Claims	0.09%	9.77	8.61
CENS			
Complains	0%	0.52	0.59
Claims	0.06%	6.82	7.49
EDEQ			
Complains	0.01%	0.21	0.30
Claims	0.03%	1.22	1.10
Delsur			
Complains	N.D.	6.23	6.05
Eegsa			
Complains	170	109	87
Claims	2,867	3,561	2,191
ENSA			
Complains	N.D.	N.D.	7.58

Source: Vice Presidency of Power Transmission and Distribution.

For the Group companies in Colombia, the complaints indicator measures the ratio of the number of complaints whose responsibility is for EPM, versus the number of total customers, out of every 10,000. The claims indicator measures the ratio between the number of amendments to the bill for reasons attributable to the company, versus the total number of bills issued out of every 10,000 customers.

In 2013, the EPM Group national energy subsidiaries had not a standardized measurement of grievance indicators.

The energy subsidiaries in Central America have a different indicator with a structure different from the subsidiaries in Colombia.

Related Indicators

G4-PR5 - Results of surveys measuring customer satisfaction.

EPM-06 - Grievance indicator

Action: Safety in the Service Provision

The EPM Group has operational excellence as one of its strategic focus in the service provision. With this purpose, it develops prevention, mitigation and risks management plans and contingency plans to manage events; applies methods and technologies with quality standards; and performs educational actions to guarantee the adoption of practices to ensure the integrity of the infrastructure and the safety of its employees, customers, and community.

Management in 2015

In 2015, the energy business of the EPM Group in Colombia structured and started the execution of the Inter-group Multi-business Control Center, which will allow the accomplishment of scale economies in investments and support costs. It will also allow better efficiency on the operation process, which will have as a final effect a better service to customers and users.

EPM made, for the water and sewerage services, an update on the risk matrix of every process. In addition, it made plans and developed contingency and emergency actions to deal with risk situations. The development of physicochemical and microbiological analysis continued to ensure drinking water supply and to prevent diseases that affect the quality of life of the inhabitants.

The EPM Group catalogs the provision of the electrical energy service as a dangerous activity, and thus particular importance is given to the prevention actions to minimize accidents happening to people and damages on property and possessions.

In 2015, the study of risks associated with the electrical infrastructure and the easements problematic was updated. The national companies from the EPM Group showed that most of the accidents happen due to the ignorance of the risk, recklessness or unauthorized intervention of the electrical grids, and not keeping the safety distances or pushing them when they meet the standards. The easements invasion increases the probability of an electrical accident happening due to the development of activities and building in proximity to the electrical infrastructure (58% of the accidents are due to reaching the primary distribution feeders with conductive objects and the unauthorized intervention of the grids).

With the aim of reducing the number of accidents in the electrical grids, the companies of the Business Group developed in 2015 activities such as:

- Regular inspections of the primary distribution feeders to detect their condition, verify safety distances of the conductors, transformers and structures, or any other situation of risk.
- Setting up of insulation materials on conductors and transformers.
- Remodeling of electrical grids.
- Regular trimming of trees.
- Deviation of circuits when there is easement invasion and where the lines go over the roofs.
- Campaign "Safe use of energy", promoted by Asocodis. This campaign comprises the willingness and funding by the main distribution and commercializing electrical energy companies in Colombia.
- Raising awareness on the community action boards about the electrical risk.
- Educational campaigns to users through the public utilities bill, radio spots, television commercials, and fliers.

As a result of the risk study in 2015, complementary actions were proposed to be developed in the short, medium and long term, such as:

- Mark the medium voltage circuits with signs.
- Use the coated ecological wire on a massive scale in urban zones.

- Install protection barriers in poles and subtransmission towers to prevent people from climbing them.
- Continue the studies on technology of materials and construction techniques used around the world to reduce the electric risk.
- Manage, alongside the municipal planning, the Urban Planning Offices and secretariats, how to increase the capacity of the Technical Regulations for Electrical Installations (known in Spanish as RETIE), the electric grids, the safety distances, the electric risks and those associated to electricity and the accident statistics, so that these can be taken into account when approving construction permits.
- Develop written information campaigns to deliver to those who are seeking a construction permit.
- Ask the environmental authorities to control effectively the planting of trees on the easement strips of high and low voltage circuits.
- Plead for control to avoid constructions under the electrical grid.

Moreover, EPM implemented preventive and corrective actions to guarantee safety when operating on the gas utility infrastructure, and promoted safe practices among users:

- Through the inspection authority hired by the company to perform regular inspections on the gas facilities, EPM reviewed and certified 126,781 facilities.

- The company trained the municipal administrations, firefighters, civil defense, and constructors on the safe handling of the gas utility in order to prevent, minimize and control emergencies such as fires, gas leaks, and minor scale incidents in the distribution system.
- EPM has equipment and instruments with the anti-explosion qualification, certified to work in potentially explosive environments.
- The "Call before you dig" program allowed preventing incidents on areas being intervened near the gas network.

In 2015, the company dealt with 22,340 requirements from the users and the community related to possible damages on the infrastructure of the gas network or on the internal facilities. Of these, 4,048 were of high priority, and 18,293 were of medium and low priority.

Incidents in the provision of the EPM energy service

Indicator	2013	2014	2015
# Of injured people	40	38	21
# Of deaths by electrical accidents	12	9	8
# Of people burnt by electrical accidents	22	17	9

Source: Vice Presidency of Power Transmission and Distribution.

Incidents in the provision of the energy service in the sector Subsidiaries

Company/Indicator	2013	2014	2015
ESSA			
# Of injured people	17	15	15
# Of deaths by electrical accidents	6	4	3
# Of people burnt by electrical accidents	7	10	6
CENS			
# Of injured people	7	13	9
# Of deaths by electrical accidents	4	1	3
# Of people burnt by electrical accidents	2	2	3
CHEC			
# Of injured people	11	10	19
# Of deaths by electrical accidents	6	3	6
# Of people burnt by electrical accidents	5	7	13
EDEQ			
# Of injured people	5	5	3
# Of deaths by electrical accidents	3	0	0
# Of people burnt by electrical accidents	2	4	2
Eegsa			
# Of injured people	N.D.	103	39
# Of deaths by electrical accidents	N.D.	4	6
# Of people burnt by electrical accidents	N.D.	4	4
Delsur			
# Of injured people	7	11	9
# Of deaths by electrical accidents	2	1	0
# Of people burnt by electrical accidents	3	7	7

Source: Vice Presidency of Power and Distribution

Related Indicators

G4-EU25 - Number of injuries and deaths involving the organization's assets, including legal sentences, settlements and pending legal cases of diseases.

Action: Customer Service

The customer service at the EPM Group is based on providing our customers with satisfying experiences when interacting with the company. To do this, we have different ways of assisting the customer with their needs.

EPM offers multiple options to their customers: customer service offices, online representatives (remote assistance to customers located in crowded offices from staff located elsewhere via videochat), mobile office, free customer service hotline available 24/7, written assistance via mail or e-mail, web page and specialized assistance to constructors and property administrators.

Management in 2015

In 2015, the EPM Group in Colombia got its customer service process standardized to meet high quality standards of service and assistance, ensure the due process, reduce the affectation risk of public services, standardize legal interpretation criteria, assist customers in a timely manner and develop capacities and improve the process knowledge in employees.

In 2015 EPM carried on offering a comprehensive assistance on each one of the commercial operations of the different bureaus of the organization. New auto-assistance options for customers were created: A pilot phase for a self-assistance module [Punto fácil (Easy Point)] in one of the offices in Medellin so customers can pay their bills or buy their own prepaid electricity pins in an easy and quick way. Furthermore, IVR (Interactive Voice Response) was implemented, allowing the customers to consult the bill balance, payment deadlines with or without surcharge and the payment reference number.

The company launched the EPM mobile app in 2015, which allows customers to make, easily and comfortably, transactions such as: pay their bills online, consult payment and consumption history, report water, power or gas damages on public areas, access to the chat service and look up information such as office locations, customer service lines, location of natural gas stations, news or events.

In 2015 EPM started outsourcing payment collection with 8 entities that register, immediately and online, the payments of the customers, preventing suspensions of the services and reducing the time it takes for customers to get their services reconnected once they get back on track with late payments.

As a result of the effort to increase the use of electronic methods of payment, EPM increased the electronic collection in 9 thousand payments a month.

In 2015 we had 27,885 customers suscribed to the online bill service (Facturaweb), an increase of 107% compared to 2014. This was a result of the improvements we have been doing to make the experience more user-friendly, making it easier for the customer to register and consult or pay their bills on the web site. Additionally, advertisement campaigns were made through the Somos program to promote the web portal.

In the second semester of 2015, EPM implemented the prepaid water supply service with 5,612 recharge points.

The users of prepaid electricity of EPM benefited from the electricity recharge system via pay phones as there are over 6,000 pay phones in the Medellin Metropolitan Area available for this type of operations. There was a mensual average of 429 transactions by this method.

In 2015 Aguas de Oriente opened a contact center.

The subsidiaries ESSA (in Colombia) and Eegsa (in Guatemala) launched an app for mobile devices. Thanks to this app, ESSA customers can check their bills, pay it online, submit RCCs, look up the location of customer service offices, call 115 and consult programmed disconnections. Meanwhile, Eegsa customers can do most operations of self-consultation and self-services online, as well as connecting with service representatives to submit doubts or register more detailed operations to the company.

In 2015, on its habeas data official channel, created under the 1581 of 2012 and its regulatory decrees, EPM did not receive any request or complaint related to privacy violations, leak of customer personal information or breach of regulations related to personal information of any holder from our stakeholders.

EPM Service Channels

Channel	Amount			Number of Operations		
	2013	2014	2015	2013	2014	2015
Customer service offices	151	152	151	1,427,230	1,386,138	1,393,632
Mobile office	1	1	-	309	558	-
Customer service line	1	1	1	5,173,918	5,331,990	4,923,202
Services for builders and co-ownerships administrator	4	4	4	80,485	77,877	30,138
Written channel	1	1	1	237,214	234,059	241,676
Virtual services (chat)	1	1	1	7,545	6,630	11,239
Online representative	38	40	40	6,206	8,768	12,363

Source: Commercial Vice Presidency.

In 2015 the customer service office in Buenos Aires neighborhood closed down as it was located on the area designated for the construction of the Ayacucho tramway.

The online representative channel refers to the remote assistance to customers located in crowded offices from staff located elsewhere via videochat.

In 2014 operations by constructors were accounted for under the face-to-face channel. In 2015 the statistics were distributed by services through both face-to-face and written channels.

Customer Service Channels - Water Services Subsidiaries of EPM Group

Companies/Channels	Amount			Number of Operations		
	2013	2014	2015	2013	2014	2015
Aguas de Occidente						
Customer service offices	4	4	4	2,879	1,265	2,201
Customer service line	1	1	1	147	153	164
Written channel	3	3	3	209	226	261
Online representative	1	1	1	4	5	59
Aguas del Oriente						
Customer service offices	1	1	1	29,613	35,745	41,379
Customer service line	N.A.	N.A.	1	N.A.	N.A.	1,580
Written channel	1	1	1	9	18	13
Aguas de Urabá						
Customer service offices	7	7	8	25,549	20,990	26,359
Customer service line	1	1	1	124	1,468	1,082
Written channel	1	1	1	946	1,019	988
Online representative	0	0	5	188	5,183	1,091
Aguas de Malambo						
Customer service offices	1	1	1	1,801	1,789	4,261
Customer service line	1	2	2	156	75	1,151
Written channel	1	1	1	254	180	368
Emvarias						
Customer service offices	1	1	1	1,899	3,066	3,018
Customer service line	2	2	2	36,750	29,592	21,839
Written channel	0	0	1	0	0	200
Online representative	0	2	1	0	0	1,281
Empresas Públicas de Oriente						
Customer service offices	N.D.	1	1	N.D.	1	1
Customer service line	N.D.	2	2	N.D.	76	76
Written channel	N.D.	2	2	N.D.	2	2

Source: Vice Presidency of Water and Sanitation.

The reports from 2013 and 2014 in Aguas de Occidente, Aguas de Urabá and Empresas Públicas de Oriente were corrected since operations made via e-mail were registered as via virtual channel, they should have been included in written channel, along with mail.

Operations registered for offices in Aguas del Oriente correspond to collection operations.

In Aguas de Malambo operations on the customer service line increased due to their increased capacity to take calls. Operations in offices increased as a result of a higher number of resources that treat the operation suspensions for delay.

Companies/Channels	Amount			Number of Operations		
	2013	2014	2015	2013	2014	2015
CHEC						
Customer service offices	41	41	41	64,765	278,384	357,309
Customer service line	2	2	2	335,630	280,230	350,903
Written channel	1	1	1	5,740	4,681	4,481
Virtual Services	2	2	2	481	428	669
Online representative	N.A.	N.A.	2	N.A.	N.A.	1,000
ESSA						
Customer service offices	80	80	80	N.D.	N.D.	570,710
Mobile office	1	2	2	N.D.	N.D.	341
Customer service line	1	1	1	N.D.	N.D.	463,980
Services for constructors and co-ownerships	1	1	1	N.D.	N.D.	297
Written channel	1	1	1	N.D.	N.D.	13,420
Virtual Services	N.A.	N.A.	N.A.	N.D.	N.D.	28,897 kioscos
CENS						
Customer service offices	48	48	48	N.D.	N.D.	424,222
Mobile office	2	2	2	N.D.	N.D.	3,488
Customer service line	1	1	1	N.D.	N.D.	17,643
Written channel	1	1	1	N.D.	N.D.	9,588
EDEQ						
Customer service offices	17	18	13	161,032	159,884	154,959
Customer service line	1	1	1	N.D.	N.D.	16,661
Written channel	1	1	13	3,944	4,662	4,902
Virtual Services	1	1	1	N.D.	N.D.	240

Customer Service Channels - Energy Service Subsidiaries of EPM Group

Companies/Channels	Amount			Number of Operations		
	2013	2014	2015	2013	2014	2015
Delsur						
Information Bureaus	9	9	9	2,078,430	1,918,559	1,978,714
Mobile office	2	2	2	24,210	44,569	36,458
Customer service line	2	2	2	179,201	169,805	158,839
Virtual Services (chat)	0	17	17	N.R.	6,224	8,660
Egesa						
Customer service offices	12	14	16	N.A.	N.A.	1,189,740
Mobile office	1	1	1	N.A.	N.A.	1,276
Customer service line	2	2	2	N.A.	N.A.	1,054,375
Services for constructors and co-ownerships administrator	4	4	4	N.A.	N.A.	119
Written channel	14	16	18	N.A.	N.A.	9,826
Virtual Services (chat)	5	5	6	N.A.	N.A.	1,849
Online representative	2	4	4	N.A.	N.A.	1,392
ENSA						
Information Bureaus	6	9	9	N.D.	N.D.	293,014
Mobile office	1	1	1	249,657	422,637	471,623
Customer service line	2	2	2	N.D.	199,853	354,474
Written channel	1	1	1	N.D.	N.D.	40,763

Source: Vice Presidency of Power Transmission and Distribution.

CHEC: the significant variation on the office channels in 2014, in relation to 2013, can be explained by the fact that in 2014 we had the complete reports of all the service points, but in past years we only had reports from the main offices (Manizales, Dosquebradas and La Dorada).

In 2014, ENSA opened three new service offices.

Delsur has a significative amount of collection operations done in offices.

Number of payment offices from EPM collection channels

Payment channels	2013	2014	2015
Own payment offices	122	122	122
Online banking (internet)	12	12	12
Mobile banking (cellphone)	6	6	6
Mobile devices	N.A.	5,050	6,245
ATMs	7,246	7,246	7,246
PIN pads	12,186	16,167	16,167
Banks, corporations and cooperatives	31	32	36
Non-banking correspondents	4,079	13,126	13,909
Others - which ones? *	26	25	12

Source: Commercial Vice Presidency .

Mobile devices refer to independent agents system that do operations for the customer via mobile devices.

The decrease in PIN pads use in 2013 is a result of the spin-off of UNE Telecomunicaciones.

"Others" refers to third party collectors other than banks, corporations or cooperatives, such as payment offices and supermarkets.

Number of payment channels - Subsidiary Water and Sanitation companies

Companies/Payment offices	2013	2014	2015
Aguas de Occidente			
Online banking (internet)	1	1	1
ATMs	1	1	0
Payment terminals * *	5	8	8
Banks, corporations, cooperatives, others	2	2	2
Non- banking correspondents	5	8	8
Others - which ones?**	9	9	9
Aguas del Oriente			
Banks, corporations, cooperatives, others	0	16	1,907
Aguas de Urabá			
Own payment offices	7	7	8
Online banking (internet)	12	13	15
ATMs	47	56	70
Payment terminals * *	24	30	40
Banks, corporations, cooperatives, others	10	13	15
Non- banking correspondents	15	25	35
Others - which ones?**	13	15	20
Aguas de Malambo			
Banks, corporations, cooperatives, others	1	1	1
Others - which ones?**	8	9	9
Empresas Públicas de Oriente			
Banks, corporations, cooperatives, others	1	1	1
Emvarias			
Online banking (internet)	5	5	5
Banks, corporations, cooperatives, others	5	5	5
Non- banking correspondents	1	1	0

Source: Vice Presidency of Water and Sanitation.

Number of payment offices - Subsidiary power companies

Companies/Payment offices	2013	2014	2015
CHEC			
Own payment offices	25	23	20
Online banking (internet)	6	6	7
Payment terminals **	16	16	16
Banks, corporations, cooperatives, others	14	14	15
Others - which ones?**	573	812	835
ESSA			
Online banking (internet)	11	12	12
ATMs	8	8	8
Payment terminals **	5	5	5
Banks, corporations, cooperatives, others	21	21	20
Non- banking correspondents	8	8	8
Others - which ones?**	2	3	3
CENS			
Online banking (internet)	13	11	11
Payment terminals **	2	2	6
Banks, corporations, cooperatives, others	750	786	1,100
Non- banking correspondents	237	408	408
Others - which ones?**	1	1	1
EDEQ			
Own payment offices	122	122	18
Online banking (internet)	12	12	1
Mobile banking (cellphone)	6	6	0
Mobile devices ***	N.A.	5,050	0
ATMs	7,246	7,246	13
Payment terminals **	12,186	16,167	21
Banks, corporations, cooperatives, others	31	32	3
Non- banking correspondents	4,079	13,126	0
Others - which ones?**	26	25	N.R.

Number of payment offices - Subsidiary power companies

Companies/Payment channels	2013	2014	2015
Eegsa			
Online banking (internet)	14	14	13
Mobile banking (cellphone)	0	0	4
Mobile devices ***	0	0	5
ATMs	3,036	3,131	3,338
Banks, corporations, cooperatives, others	8,063	9,471	10,218
Non- banking correspondents	3,043	1,965	1,971
Delsur			
Own payment offices	9	9	9
Online banking (internet)	8	8	8
Mobile banking (cellphone)	0	2	2
Banks, corporations, cooperatives, others	485	1,008	2,900
ENSA			
Own payment offices	N.R.	N.R.	9
Cajeros automáticos	N.R.	N.R.	1,900
Banks, corporations, cooperatives, others	N.R.	N.R.	40
Non- banking correspondents	N.R.	N.R.	19

Source: Vice Presidency of Power Transmission and Distribution.

In ENSA the online banking, mobile banking and mobile device payment methods are available through banks associated to the Clave (Password) system; PIN pads are available through the ePago agent.

Related Indicators

G4-PR8 - Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data

Aspect: Responsible procurement

Procurement criteria and practices that promote sustainable development and competitiveness of territories where the EPM Group operates.

Stakeholders Vision

Development of local abilities and sustainable promotion of territories where the EPM Group operates through practices fostering the local business network

Importance

It is a fundamental tool to leverage sustainability and competitiveness of territories. It involves potential recognition and local abilities generation. It potentially improves the economic dynamic generating income for the community and promotes the local business network.

It contributes to improve confidence and reputation in EPM stakeholders, respond with business actions according to society's expectations and avoid pressuring by demands outside its scope that generate less value in terms of development.

Main achievements

Goals for 2015	Achievements in 2015	Compliance
Compliance of Supply Chain project milestones.	Out of a total of 58 project milestones, there were achieved 57, what means a 98% of the compliance planning.	Partial
Compliance of planned activities in the Supply Chain project schedule.	Project schedule was accomplished in a 90% at the close of the year. This corresponds to an execution of 70% versus a 72% expected.	Partial
Benefits catchment as result of the Supply Chain management.	In 2015, we obtained COP 95,829 millions over a goal of COP 71,000 million, a 134% compliance.	Total
Improving planned procurement percentage in 2015.	procurement planning process was improved in a 65% versus a 26% last year.	Total
Advance in the Supplier and Contractors Management implementation for EPM Group	90% compliance in the Supplier and Contractors Management implementation was obtained with a total of 91% at the close of the year.	Partial
Program of engagement with EPM suppliers and contractors.	Program of engagement with EPM suppliers and contractors was accomplished entirely.	Total
Contractors performance assessment.	Implementation schedule for contractors performance assessment was accomplished in a 95%.	Partial
Procurement Unit Management.	771 contracts were signed worth COP 1,348,067 million, including 43 joint purchasing processes worth COP 236,884 million.	Total
Matrix engagement with the Group subsidiary companies.	The homologation of contractual process and regulations with our energy subsidiaries and Emvarias was handled.	Total
New business methodologies	The alternative of applying electronic auction in recruitment processes was implemented.	Total
Improvement in materials management use	Net sales income of COP 7,038 million.	Total
EPM Inventory Turnover	Turnover of 0.67 times in 2015. Goal was 0.63	Total
Implementing the strategic supplying methodology with the purpose of improving engagement in those suppliers that provide cables, steel and insulators.	The strategic supplying methodology was implemented through the purchasing of cables, steel and insulators to both national and international suppliers.	Total

Challenges

Challenges	Extent	Compliance year	Compliance indicator
To ensure that budget savings and anticipated benefits be captured, and to seek an additional synergies capture attempting to overtake profits from the project business plan.	National and International subsidiaries	2016	Benefits indicator
To consolidate the planning process in international subsidiaries.	International subsidiaries	2016	Consolidate planning process in international subsidiaries.
Project consolidation by means of Information Technology enablers and Supply Chain process implementation.	EPM Energy national subsidiaries (CENS, CHEC, EDEQ, ESSA)	2016	Supply Chain process implemented in EPM and its national energy subsidiaries.
Implementation of 11 Supply Chain project milestones.	EPM National subsidiaries	2016	Compliance of the project milestones 2016 / total of project milestones 2016
From the Supply Chain, managing the 90% of recruitment process associated to new infrastructure projects.	EPM Energy national subsidiaries (CENS, CHEC, EDEQ, ESSA)	2016	Management of the 90% of recruitment process for new infrastructure projects.
Managing the 21 priority categories according to work schedules in the nationwide Group procurement.	EPM National subsidiaries	2016	Work scheduled should be applied to the 21 prioritized categories according to the impact in water, energy, gas and solid waste collection business.
Implementation of the Category and Supplier process at EPM Group, the totally of its national subsidiaries and at least 40 % of its international subsidiaries.	National and International subsidiaries	2016	100% national subsidiaries 40% international subsidiaries
Strategic Supply Guide approval at least in 2 of 5 international subsidiaries.	International subsidiaries	2016	Compliance at least in 2 international subsidiaries.
Implementation of the contractors performance assessment methodology in the 80% of the EPM Group international operative subsidiaries.	International subsidiaries	2016	Work schedule compliance.

Challenges	Extent	Compliance year	Compliance indicator
Full compliance of corporative BSC goals associated to suppliers and contractors (reputation).	EPM	2016	Compliance percentage in reputation goal (DJSI indicator will be measured again in 2017).
Implementation of small purchasing process at Aguas de Urabá and Aguas de Malambo.	Aguas de Malambo Aguas de Urabá	2016	Implementation of small purchasing process in both subsidiaries.
Procurement management model implementation in energy national subsidiaries.	Energy national subsidiaries (CENS, CHEC, EDEQ, ESSA)	2016	Procurement management model in energy national subsidiaries.
To obtain a turnover indicator of 0.70 times by a consumption growth and an inventory reduction.	EPM	2016	Inventory turnover indicator: Value of output goods in the period / value of average inventory in the period.
EPM Group seeks to achieve a significant time reduction in its recruitment processes realization.	EPM National subsidiaries	2016	Contract period indicator: Percentage of accepted processes within the established business days to agree on SLA or timely response.

Related indicators

G4-EC9 Proportion of spending on local suppliers at significant locations of operation.

EPM-07 Number and value of contracts of social procurement.

EPM-08 Number, value and type of EPM Group contracts.

EPM-09 External employment from EPM Group contracts.

EPM-10 Suppliers' satisfaction

EPM-11 Assessment of economic, environmental and social performance of S&C.

Action: Social Procurement

Strategy used by EPM to contract works and services with Community Action Committees and Community Associations in order to strengthen and sustainably develop the communities in which EPM operates.

It relies on regulatory and management resources and procedural remedies which, without losing transparency, economic convenience, nor legal and technical rigor, help to include suppliers and contractors at the base of the pyramid, which otherwise wouldn't be taken into account. Social Procurement looks to:

- Generate employment in the area that is, in the project or service area requiring EPM. The process is done in such a way that those communities may spring towards development.
- Reinvestment of surpluses generated by the project or service required in the impacted community to improve their quality of life and development.

Management in 2015

In 2015, EPM executed 52 contracts for public works and services for the amount of 15,049 million COP through the program of Social Procurement. On the other hand, a total of 19.160 million COP was executed in Social Procurement (a decrease of 6.1 % in the number of contracts and 13.5 % in the contracted value compared with 2014). This occurs because this mechanism is conditioned by the Procurement of projects that the company performs every year.

In 2015, the Strategic Supply Guide was implemented. It provides guidance on the application of strategic supply as a fundamental tool for the value addition in the acquisition of goods and services required by the EPM Business Group. A chapter was dedicated to establish the procedures, requirements and general criteria for the development and positioning of social, regional, and local procurement in order to enable the inclusion of these procurement mechanisms and the development of the territories where the EPM Business Group has presence. It also defines a model that allows any procurement to validate supplying the goods or services required: firstly, by the Social Procurement, secondly, place by the local, regional, national procurement, and international procurement. This was carried out within the framework of procurement principles that govern the EPM Business Group and the criteria set out in the strategic sourcing matrix, thus, keeping the balance between technical, legal, economic, social and environmental rigor.

Social Procurement - Number of contracts

Vice Presidency	2014	2015
Power generation	64	12
Power transmission and distribution	4	0
Water and Sanitation	19	1
Executive Projects & Engineering	2	2
Shared supply and services	25	37
Total	114	52

Source: Vice Presidency Shared Services and Supplies

The information corresponds with the total number of contracts formalized in 2015 and not with the total number of executed contracts. The figures are thus not comparable with those of the previous years.

Social Procurement - Contracts value (COP millions)

Vice Presidency	2014	2015
Power generation	8,358	2,462
Power transmission and distribution	546	0
Water and Sanitation	8,826	613
Executive Projects & Engineering	182	42
Shared Supply and Services	4,844	11,932
Total	22,756	15,049

Source: Vice Presidency Shared Services and Supplies

The information corresponds with the total number of contracts formalized in 2015 and not with the total number of executed contracts. The figures are thus not comparable with those of the previous years.

Social Procurement - Contracts value (COP millions)

Vice Presidency	2014	2015
Power Generation	8,358	4,922
Power transmission and distribution	546	122
Water and Sanitation	8,826	4,923
Executive Projects & Engineering	182	45
Shared Supply and Services	4,844	9,149
Total	22,756	19,160

Source: Vice Presidency Shared Services and Supplies

The information corresponding with the executed value by the 2015 Social Procurement program is registered. That includes contracts formalized in other validity dates.

Related indicators

G4-EC9 Proportion of spending on local suppliers at significant locations of operation.

EPM-07 Number and value of social procurement contracts.

Action: Regional, National and Foreign procurement

Origin refers to the place of provenance of the hired suppliers. From it, we can tell if they are regional, national or foreign in terms of percentage of awarded contracts.

Management in 2015

In 2015, the values of contracts of the EPM Group were equal to COP 4.99 trillion, of which COP 4.32 trillion correspond to companies from the Group in Colombia and COP 667,314 billion to the international companies of the EPM Group.

In 2015 the Colombian companies of the EPM Group entered into contracts for COP 4.32 trillion, of which 58.3% come from regional economy, 37.6% from national suppliers and the other 4.1% correspond to foreign suppliers.

► Number of contracts of Colombian companies of the EPM Group

Origin of contractors	2013	2014	2015
Regional	38,811	37,074	30,173
National	5,973	7,934	6,396
Foreign	116	114	47
Total	44,900	45,122	36,616

Source: Vice Presidency of Shared Services and Supplies

The reports from 2015 cannot be compared to former years as they correspond to contracts perfected in 2015 and not to the contracts executed as formerly reported.

Value of contracts of Colombian companies of the EPM Group (COP million)

Origin of contractors	2013	2014	2015
Regional	1,439,826	2,156,690	2,518,166
National	1,313,398	1,255,415	1,624,997
Foreign	41,366	208,937	175,145
Total	2,794,590	3,621,043	4,318,308

Source: Vice Presidency of Shared Services and Supplies

The reports from 2015 cannot be compared to former years as they correspond to the values of the contracts perfected in 2015 and not to the contracts executed as formerly reported.

Related indicators

G4-EC9 - Proportion of spending on local suppliers at significant locations of operation

Action: Supplier Strengthening and Development

EPM Business Group wants to know the perception of suppliers and contractors with the aim of undertaking actions and developing improvement programs. Therefore, certain mechanisms are used to measure transparency, satisfaction and reputation.

Suppliers trust us mainly due to the certainty of our ethical principles and the feeling of confidence that the EPM Business Group entrusts. These are aspects to enhance. That is why the EPM Business Group is making efforts to improve on a daily basis on: transparency, attitude and availability, perception of fair and equitable treatment, and score assignment.

Management in 2015

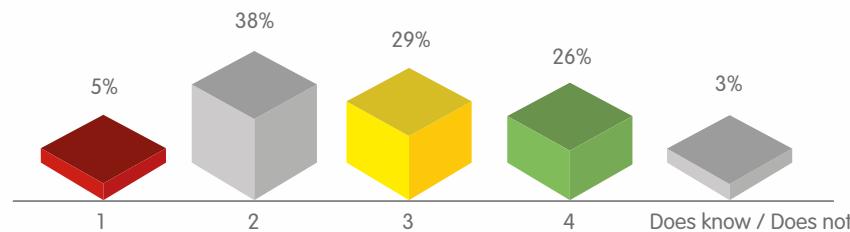
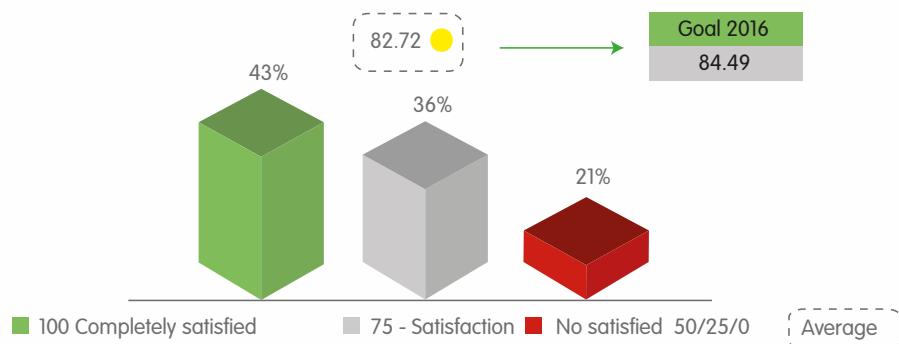
The measurement was expanded for the satisfaction index (even in the survey sample) by including suppliers, with the aim of extending the scope and obtaining a better understanding of the information.

EPM was awarded a silver medal in Multi and Water Utilities in The Sustainability YearBook 2016. EPM's high performance in aspects such as Supply Chain was outstanding (93 points places EPM as the best in its category worldwide).

EPM Business Group Supplier and Contractor Satisfaction can be observed in the following graphs:

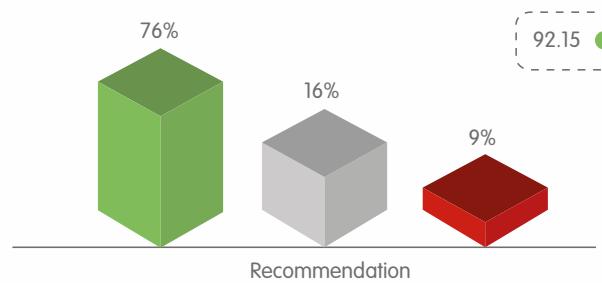
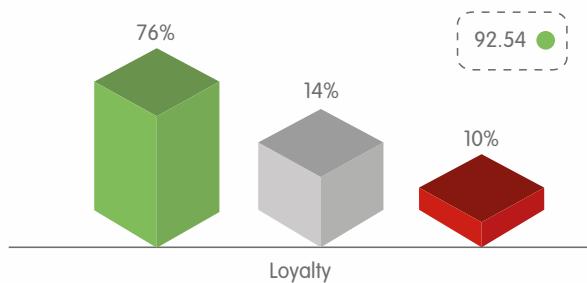
Suppliers:

General satisfaction



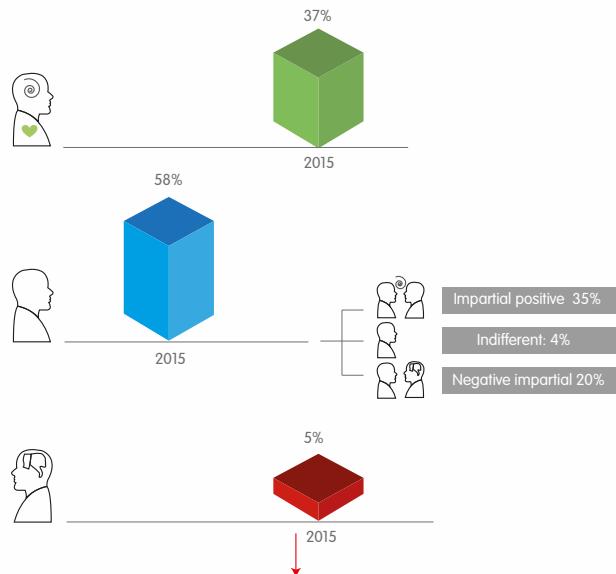
- WORSE than those you have with the OTHER
- BETTER than those you have with SOME of your other customers

- EQUAL to those you have with the OTHER customers
- BETTER in EPM than those you have with MOST of the other customers

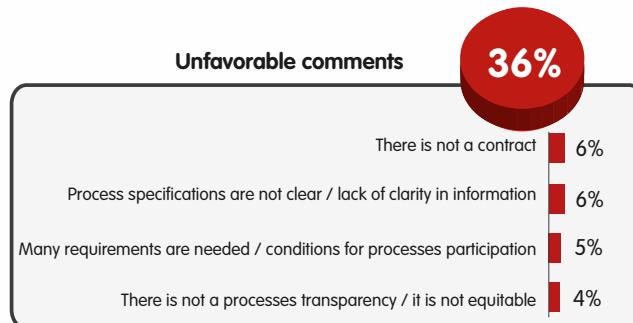


- 100 - Completely satisfied
- 75 - Satisfaction
- No satisfied
- 50/25/0
- Average

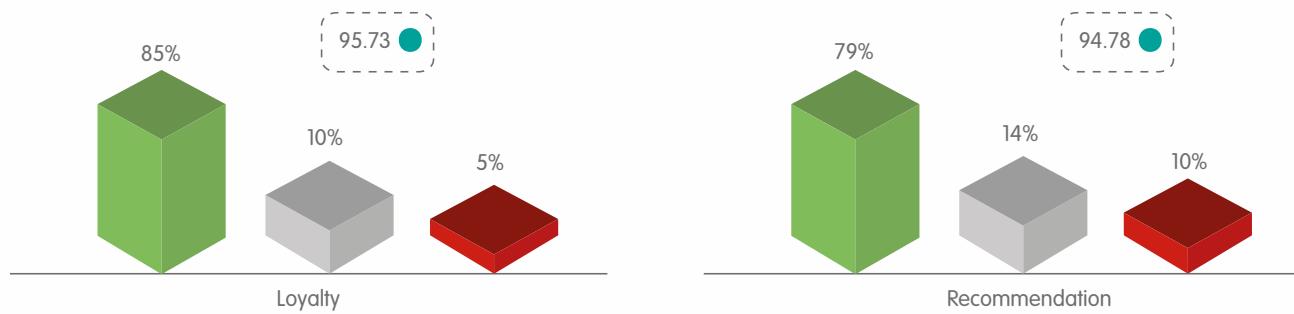
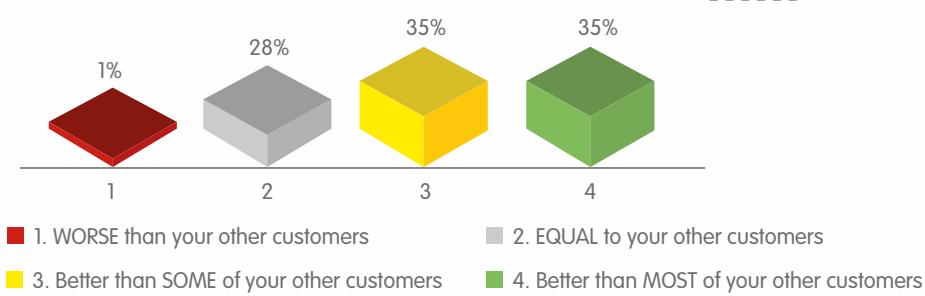
Followers - Impartial - Detractors



Why did you assign this rating? (General satisfaction)

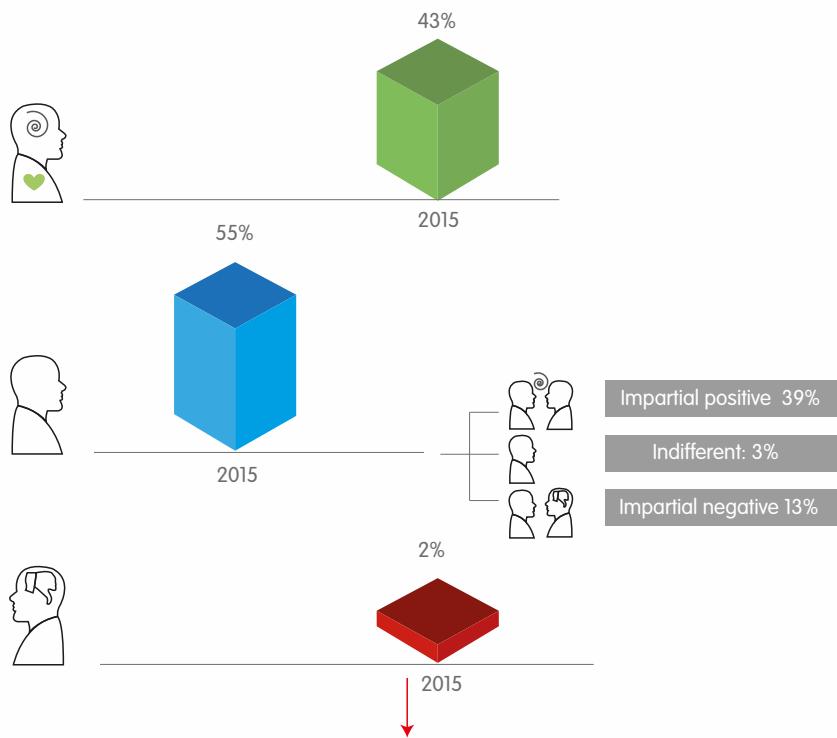


General satisfaction



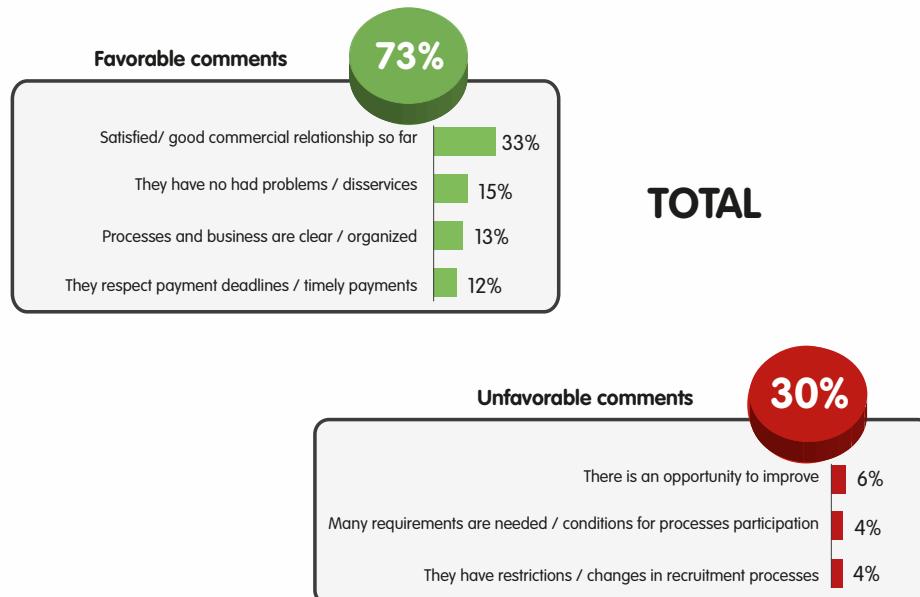
■ 100 Completely satisfied ■ 75 - satisfied ■ 50/25/0 - No satisfied { Average }

Followers, Impartial and Detractors



Compañía de Servicios S.A. Initial: Coservices	Redycom S.A.	E-commerce Global Ltda.	Estrigas Constructor S.A.S.
University of Antioquia	American Inspap Ingeniería y Servicios S.A.S.	Industrias Electromecánicas Acuña	Vargas Flores Javier Mauricio- JV Electronics
Tanques y equipos plásticos S.A.	Deltec Comunicaciones Ltda.	HV Constructores Ltda.	Consultel S.A.S.
Royal & Sun Alliance Seguros Colombia			

Reasons about general rating total



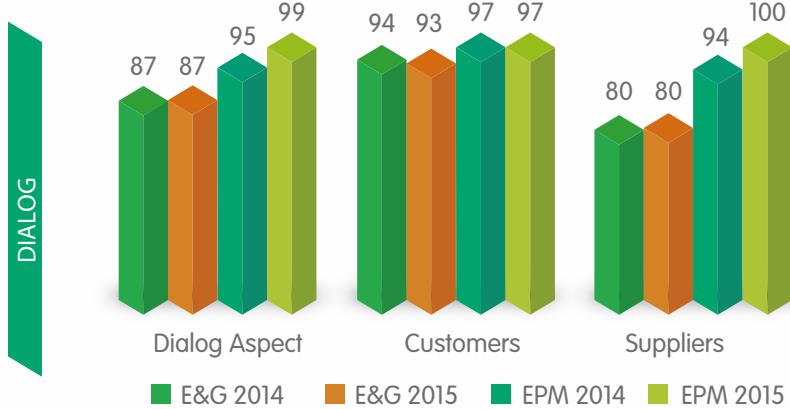
- Followers: Completely loyal to the company; very satisfied and speak highly of it.
- Impartial: Customers who are neither followers nor detractors, but they open to considering other options.
- Detractors: Completely dissatisfied customers who do not speak well of the company and that do not want to do business with it anymore.
- Sample size of suppliers: 762.

The 2015 transparency study involved 32 public utilities companies. 1,780 contractors and 15,619 suppliers were impacted. Results for stakeholder "Suppliers and Contractors" are shown in the following graph:

Comparative results by sector - EPM



Comparative results by sector - EPM



In this stakeholder rating raised on 6 points in the openness and dialogue item, with which the EPM Business Group is positioned with a score of 100 (highest rating). This rating was obtained by assessing the access to information that suppliers and contractors have.

Suppliers



This motivates and directs us to maintain and strengthen dialogue and interaction practices, as well as the access to information that suppliers and contractors have.

Related Indicators

EPM-07 Number and value of social procurement contracts.

Action: Supply Chain Implementation and Impact

Implementing a Supply Chain which covers all the EPM Business Group has been one of the transformation pillars of our organization. A process designed to strategically supply us of the required goods and services but also strengthens our relationship with stakeholders, specially suppliers and contractors, contributing to their development.

Implementing a Supply Chain for our business group includes:

- Reorganizing and governing the Supply Chain.
- Developing purchasing categories.
- Improving current procurement processes.
- Shared purchasing (Group synergies usage).
- Supplier development and homologation of specifications.
- Homologation, standarization and depuration of goods and services' master data of EPM Group.
- Redesigning the Comprehensive Inventory Management process.
- Supply Chain capacity building.
- Designing and implementing change assimilation strategies.
- Disigning planning, logistical and administrative processes, among others.
- ICT enabler appropiation.

- Improving customer and internal user services.
- Optimizing inventory levels and free up working capital.
- Improving total goods and services total cost competitiveness to achieve operational excellence.
- Close and cooperative relationship with suppliers.

Management in 2015

• *97% of the planned activities for 2015 were achieved, and a 98% progress for the Supply Chain project milestones was obtained.*

• *Acquisition of Ariba information system to manage EPM Group strategic purchasing.*

• *The Supply Chain policy was approved for national subsidiaries, both water and energy.*

• *Standardization of the approved procurement for EPM and its affiliates.*

• *Strategic sourcing guidelines and performance assessment.*



Supply Chain Planning

Leads the short and long term supply chain planning, monitors its compliance and makes the necessary adjustments.

Main Achievements:

- 2015 Procurement Plan was managed by the EPM Business National Group Supply Chain.
- 11 contractual processes belonging to 4 megaprojects were identified and managed: Bello-Guayabal-Ancón (BGA) line, Waste Water Treatment Plant in Bello, South Interceptor and Assemblies for the Ituango hydroelectric power station project.
- The joint proposal was developed with other processes (CET-specifications, Operational Planning and Financial Planning).
- Development of the 2015 planning cycle while coordinating Integrated Planning, Budget and Supply Chain Planning processes nationwide. Change and Culture Project, Corporate Communications and Training were also involved.

Suppliers and contractors are so responsible of the social and environmental impacts that their activities may produce.

Main Achievements:

- A strategic category management method as well as a negotiation matrix were incorporated.
- Priority was assigned to 21 categories which represent 60% of expenditure. These subcategories belong to the following categories: Professional/Corporate Services, Maintenance Services, Technical/Engineering Services, Engineering Equipment, Construction Services and Materials, Standard Materials and Operation Support.
- Supplier Development Methodology implementation began with support of the Renault Consulting firm.
- The Supplier Development model was designed.

Suppliers and Categories

The relationship with Suppliers and contractors is strengthened via Category Management process, therefore understanding the cost structures. A more cost-efficient process can be targeted by developing a total property cost model and implementing a responsible supply model in the Supply Chain. It can be defined as EPM Group purchasing and procurement with means of producing positive changes thus cooperating with Suppliers and contractors.

Procurement of EPM Group enterprises in Colombia, 2015

Macro-categories	Number of contracts	Value of contracts
	(COP millions) ["]	
Real estate (no negotiated in Supply Chain)*		23,338
Engineering team	638	280,005
Fees not included in the Supply Chain*	24,104	2,029,506
Collateral actions	1,151	190,918
Standard material	3,991	269,972
Maintenance services	240	75,435
Corporative / professional services	1,240	447,285
Technical / engineering services	485	533,112
Services and building material	287	318,176
Operation support	4,071	150,561
Total	36,616	4,318,308

Source: Vice Presidency Shared Services and Supplies

Category information does not include EPM Group's international subsidiaries.
It does not include a comparison with previous years, since the category management process is new in the EPM Business Group.
The total nationwide procurement information of EPM Business Group is included, excluding the mentioned categories*.

Supply

EPM makes and keeps current contracts in order to satisfy local and Group needs with greater savings and synergies for the Supply Chain.

Main Achievements:

- Homologation of the normativity and contractual process were negotiated with our energy and Emvarias subsidiaries.
- Electronic auction for procurement processes was applied.
- EPM Procurement Management Model was implemented.
- EPM Procurement Management Manual was approved.
- Procurement normativity was adjusted to implement the Supply Chain process.

Type of procurement in EPM Group enterprises in Colombia, 2015

Type of procurement	Number of contracts			Value of contracts (COP millions)		
	2013	2014	2015	2013	2014	2015
Goods and services supply	15,860	28,834	24,122	962,121	1,283,570	2,519,132
Contract of employment	366	487	239	895,103	1,015,959	624,217
Services delivery	11,542	12,406	1,690	592,249	825,116	736,083
Real estate and small purchases	302	0	258	88,828	0	131,743
Consultancy	131	155	99	75,273	94,685	76,016
Agreements and advertising links	484	526	79	60,216	79,525	45,701
Other	16,215	2,714	10,129	120,800	322,188	185,416
Total	44,900	45,122	36,616	2,794,590	3,621,044	4,318,308

Source: Vice Presidency Shared Services and Supplies

2015 procurement information corresponds to the formalized contracts and not to the executed contracts (causation), as reported in previous years; therefore, the amounts are not comparable. The criterion was modified because it is more relevant for the stakeholders to know the accepted or allocated amounts during the reported term that also have an impact on the local territories.

The information contains the nationwide total EPM Business Group procurement. It does not include international subsidiaries.

Contract Type in EPM Business Group's international subsidiaries

Contract Type	Number of contracts	Value of contracts (COP millions)
	2015	2015
Materials and Equipment	387	\$ 80,589
Network Construction and maintenance	7	\$ 1,215
Administrative Services	8	\$ 657
IT Services	3	\$ 90
Services	3	\$ 1,949
Supply	600	\$ 131,567
Service Delivery	365	\$ 337,245
Work	89	\$ 113,697
Fixed Assets	2	\$ 175
Uniforms	5	\$ 132
Total Contract Type	1,469	\$ 667,314

Source: Shared Services and Supplies Vice-President

Previous information includes the following international subsidiaries: Eegsa - Guatemala, ENSA-Panama, Los Cururos Wind Farm - Chile, HET - Panama and Ticsa - Mexico.

The data correspond to 2015 contracts. The amounts correspond to the accepted or assigned amount for the contracts and not to the executed amount during 2015.

Contract amounts are given in Colombian pesos, according to the conversion rates indicated by the Vice-Presidency of Finance and Investment Management of EPM, according to the local currency of each subsidiary.

Number of contracts by modality - Companies In Colombia of EPM Business Group

Type of Modality	2013	2014	2015
Private request for proposals	37,328	32,731	26,669
Public request for proposals	7,572	11,447	8,045
Request non-binding offer	0	25	26
Single request for proposal	0	888	1,876
Exempts of the procurement manual	0	31	0
Total	44,900	45,122	36,616

Source: Shared Services and Supplies Vice-President

Corresponds to the total procurement amount of EPM Business Group with national subsidiaries.

Private procurement proved to be greater than public procurement because it includes procurement for fleet, Medical and Dental Unit Service and company store.

2015 procurement information corresponds to formalized contracts and not to executed contracts (causation), as reported in previous years; therefore, the amounts are not comparable. The criterion was modified because it is more relevant for the stakeholders to know the accepted or allocated amounts during the reported term that also have an impact on the local territories.

External Employment Generation

It corresponds to the number of external persons to the EPM Business Group subsidiaries, related to construction, service delivery and consultancy contracts and subcontracts, among others, which have a large labour component.

Determining these figures is important for EPM because a vision of quality, stability and equity of the employment is achieved in accordance with the sustainability purpose and the relationship with this group.

Generated External Employment - Companies In Colombia belonging to the EPM Business Group

Company	2014	2015
EPM	13,675	19,757
Aguas de Occidente	4	16
EPM National Waters	1,226	486
Empresa de Aguas de Oriente Antioqueño	7	1
Empresas Varias de Medellín	397	832
Aguas de Malambo	52	36
Aguas de Urabá	129	201
Central Hidroeléctrica de Caldas	960	1,349
Centrales Eléctricas del Norte de Santander	419	1,001
Electrificadora de Santander	1,819	1,141
Empresa de Energía del Quindío	194	353
Total Generated External Employment	18,882	25,174

Source: Shared Services and Supplies Vice-President

It does not include information of international subsidiaries.

There is an increase in external staff hired by major projects that are currently under construction, such as the Ituango hydroelectric power station project, the Waste Water Treatment Plant in Bello, and the Bello-Guayabal-Ancon South Interceptor.

Materials and Services

Manages the logistics of the required movable assets, receives, restocks, safeguards and supplies movable assets to internal users of the EPM Business Group.

Main Achievements:

- Purchase planning was accompanied to determine the best strategy of foreign trade.
- Customs status project and its impacts on EPM were analyzed.

- International transportation contract was optimized by technical availability agreements (6 working minutes), including transportation from Europe, Asia and North America with the classification of 10 suppliers in total. For the overland transportation of special loads 2 working minutes were formalized which include 4 classified suppliers.
- The international transportation of 7 dispatches of turbines and generators was negotiated for the Ituango hydroelectric power station project, as well as the overland transportation of 5 of the 7 scheduled dispatches. The first generating unit was delivered on the EPM's premises.
- Revenues by 7,038 million COP from uses' sales were generated. It is important to highlight that aluminum and copper surpluses are delivered to the supplier as partial payment; he performs the sustainable use of these materials.

Related Indicators

G4-10 Total number of employees

EPM-09 External employment generated in EPM Group's contracts.

Action: Relations with suppliers and contractors

Recyproco is the EPM Business Group plan that promotes a relationship with its suppliers and contractors, in which CSR criteria are included under the concept of "extended enterprise". It integrates the efforts of different involved areas of the organization, and also seeks that they replicate these practices in their supply chains. Their ultimate aim is the sustainability of the actors involved in the supply chain by the value creation in all their actions. These are some of the actions:

- Strengthening and development
- Transparency
- Human Rights Management
- Communication

For EPM Business Group it is clear that sustainability can be achieved when confidence conditions supported in open and transparent dialogues are generated, with ethical principles and with the common purpose of generating sustainability for all the involved in the chain.

Management in 2015

In 2015, EPM Business Group held 27 events with suppliers and contractors, with an approximate attendance of 2,887 participants.

The first Saber + Meeting was held with the aim of consolidating a space that becomes a referent within EPM Business Group and its contractors, to be recognized for its rigor and organization, to be of interest and remembered by stakeholders, and to have a positive impact on the achievement of strategic goals and the Group's business purpose.

During 2015, the following actions were carried out with the objective of consolidating relationships with suppliers and contractors:

- Implementation of the Relationship Plan: It includes 4 major strategies to develop through 15 actions that were implemented in 2015. They comprise as follows:

- 12 events with suppliers and contractors in EPM (presentation of business portfolios, ANDI and Fedemetal, and a meeting with the Grupo Saber +); 4 in CHEC; 2 in EDEQ; 3 in CENS; 2 in ESSA; 1 in Aguas de Urabá; 2 in Aguas Nacionales, and 1 in Emvarias.
- Designing of a training program with classroom and/or virtual modules for suppliers and contractors, and with a specific and/or broad reach.

- Production and publication of contents that strengthen factors and attributes of reputation, satisfaction, and transparency, in the context of the organization achievements.

- Implementation of the pilot for the Suppliers Development Program:

- 28 employees of the EPM Business Group received training in different development capacities.
- 16 suppliers were selected according to the criteria established to develop the program pilot until April 2016. During 2015, we worked with 14 of the 16 suppliers available for the pilot.

- We worked in the training of transmission linemen with the Network Group, composed of ISA, the Electric Energy Cluster and EPM. 25 technicians were trained in 2015, with the support of the Corporación Tenerfuturo and the Universidad Católica de Oriente. This training program will continue to be implemented until 2017.
- In 2015, the mechanisms for assistance to incidents in Human Rights for contractors' employees was activated. This mechanism responds to incidents of contractors' employees having a contract in force with EPM. It is originally aimed to contracts being carried out in Medellin. The covered incidents are related to labor liabilities and social security, employee welfare, child labor and discrimination, among others. Until December 2015, incidents were responded.

In 2015 was consolidated, applied and adjusted the methodological guidelines for the performance assessment of EPM Business Group's contractors.

The contracts in which was included the performance assessment clause were evaluated, as well as the contracts completed within their completion date.

Related Indicators

EPM-11 Assessment of economic, environmental and social performance of S&C.

Aspect: Water care

Sustainability of water resources relies upon the management of its quality, deficit and excess, along with the comprehensive management of watersheds in order to prevent its damage. In the same way, unplanned growth in demand upon a limited net supply exerts an influence due to conflicts of water and soil use and to the insufficient and inadequate actions in risk management of socio-natural events.

Environmental and economic value is also involved when water excess, deficit or damage exist, and can affect supply and distribution systems. In addition, it generates direct impacts on availability, continuity and quality of water to be supplied, as well as economic costs including water losses and recovery works, rehabilitation, reconstruction and protection of systems.

Stakeholder Vision

Contribution to the protection, recovery, management and sustainable use of watersheds, natural resources and environmental goods and services they provide, which are necessary for the sustainability of the EPM Group and its environment as they make possible the provision of public services and improve the quality of life in communities settled in areas of influence where the Group operates.

Importance

Economic and social value is affected by both the water deficit and the water excess. This can cause problems in productive activities, infrastructure, people life and ecosystem function. Besides, it can generate critical scenarios in terms of availability, shortage, water rationing and floods, as well as consequent harmful effects on the quality of life of the population, their economic activities and the ecosystems. The most important aspects about availability are related to the drinking water supply for population, industrial processes, power generation and ecosystem functions maintenance.

Main achievements

Goals for 2015	2015 Achievements	Compliance
Comprehensive management of watersheds: definition of a favorable strategy to address, in an integral way, the EPM Group contribution to the integrated watershed management in coordination with other actors.	In 2015, it was given a response to the "comprehensive management strategy of water resources". Note: The management unit will be the watershed.	Total
Diagnosis and definition of conservation priorities in watersheds that supply reservoirs and other systems with the purpose of defining management together with other actors.	The conservation priority areas for those basins that supply reservoirs and other EPM Group catchments of interest were defined. At the same time, conservation goals were set for long and medium term. Those goals were used to define the indicator of water protection, which conform social and environmental dimension of the EPM Group and Balanced Scorecard BHAG.	Total
The CEO Water Mandate: EPM is committed with this ONU initiative since 2014. It is in charge of generating the first progress report in 2015.	Attending the compromise established with the CEO Water Mandate, EPM progress report was presented in August 2016.	Total
Wastewater properly management in water purification plants: implement solutions for sludge management in every water purification plant by December 2016.	In 2015, purification systems of DWTP were implemented in San Antonio de Prado and Barbosa. Schedule execution of Manantiales, Ayurá and Caldas projects is delayed. The phase of turnkey design and construction has taken more time than expected due to the required level of suppliers. Once proposals are completed, the goal should be reconsidered.	Parcial
Non-Revenue Water Management: To obtain a better control of non-revenue water in 2017. The aim is to control technical and commercial losses. The volume of losses in the socioeconomic level range of water losses for the EPM system is estimated between 85 and 90 million of m ³ .	In 2015, the volume of losses was 91.7 million of m ³ . Although an increase with respect to 2014 was presented, the set goal for 2017 can be reached.	Total
Modernization Project of San Fernando WWTP: to develop the project into two modules. The first, in order to remove sand and trash from wastewaters; the second, to optimize anaerobic digestion (starts in 2015).	The research was based on conceptual engineering. Throughout its development, it was considered the necessity of reviewing the subject because of the original design implications considering the cost-benefit analysis. In this way, there were defined actions to develop during the project. In 2015, the following advances were reached: <ul style="list-style-type: none"> - Chemically Assisted Treatment: it was designed a system of reception, storage and dispensing for Aluminum Polychloride. - Diffusers change: all fine bubble diffusers of aeration tanks were changed. This change could reduce the electricity demand. 	Total

Challenges

Challenges	Extent	Compliance year	Compliance indicator
Non-Revenue Water Management: To obtain a better control of non-revenue water in 2017 through the non-revenue water management, in order to control technical and commercial losses. Volume losses at the water losses socioeconomic level range in EPM system is estimated between 85 and 90 million of m ³ .	EPM	2017	In 2015, the volume of losses was 91.7 million of m ³ .
Wastewater properly management in water purification plants: to implement solutions for sludge management in every water purification plant of the Valle de Aburrá by December 2016.	EPM	2016	Quantity of DWTP with dumping management solution.
Reduction of Medellín River pollutant load in 2017 to 37,785 BOD5 ton and 19,287 TSS ton through the SWMP associated works.	EPM	2017	BOD5 tons per year TSS tons per year
Water protection: implementing watersheds protection initiatives within priority conservation areas; 4,645 ha equally to 5% of identified priority areas. (EPM, CHEC, Aguas de Urabá).	EPM Group	2016	Protected hectares. Percentage of priority areas with conservations initiatives.
Conservation areas: total area where protection and maintenance actions are done in supply basins of interest to the EPM Group and some of its companies (EPM, CHEC, Aguas de Urabá).	EPM Group	2016	Protected hectares. Conserved total area (water protection plus maintenance).
Engagement in the recovery of the "Reserva Protectora de Manantiales, Cerro Alux" with the support of CONAP, (2016-2020).	Eegsa	2016	Development of at least one project in favor of the "Reserva Protectora de Manantiales, Cerro Alux" protection and conservation.

Related Indicators

- G4-EN8. Total water catchment by sources.
- G4-EN10. Percentage and total volume of recycled and reclaimed water.
- G4-EN22. Total water dumping by origin and destination.
- G4-EN27. Mitigation significance of environmental impacts in products and services.
- EPM-01. Conservation areas. Total actions in supply basins for its protection and conservation.
- EPM-12. Water protection. Total actions in supply basins new areas for its protection and conservation of quality and quantity.

Action: Water Conservation

Protection and improvement of hydrographic basins and the environmental services they provide are crucial to ensure the protection of water resources, the sustainability of territories, and the quality of life of the communities benefiting from such services.

The environmental conditions of basins have a direct effect on water supply sources of reservoirs and other systems. In order to contribute to improve these conditions and prevent the risks associated with water resource availability to the population served, the EPM Business Group undertakes—free-standing and with other participants—programs and projects such as the comprehensive management of water resource and biodiversity, erosion control, environmental sanitation, environmental management in reservoirs, forest management, restoration, fauna management, environmental awareness and monitoring.

Management in 2015

EPM Business Group companies made alliances with public and private actors to protect supply hydrographic basins of interest to hydroelectric power generation, water supply, and the sustainability of the territories where they are located.

2016-2019 Goals Definition of the Water Protection Indicator, which is part of the Social and Environmental Dimension of the EPM Business Group BHAG.

Some programs and initiatives developed in this period by the EPM Business Group companies for basin conservation are detailed below:

Joint actions with other actors: EPM Business Group companies undertook actions to protect hydrographic basins that supply water. Others include:

- **EPM-Cornare Agreement**, for developing socio-environmental management programs in areas of interest, 16 municipalities of the Eastern Antioquia. In the development of the agreement, programs as the construction of sewage treatment systems, solid waste management, erosion control, protection and restoration of priority conservation areas, among others, are carried out.
- **EPM-Corantioquia Agreement**, joint management to develop socio-environmental management programs in areas of interest, 10 municipalities of Northern and Northeastern Antioquia, area of influence of the Riogrande I, II, and Porce II and III reservoirs. Progress was made in the implementation of some of the programs, especially in erosion control and basic sanitation.
- **EPM-Corantioquia Agreement**, for acquisition of 498 ha in the jurisdiction of the Páramo de Santa Inés.
- **Agreements for the Chinchiná River Basin**, a cross-sectoral initiative to improve the land use of the basin that permits to achieve goals of quality and protection of basins.
- **Partnership between the municipality of Chinchiná, CHEC, Corpocaldas**, for the prevention of disasters risk and environmental remediation of the stream outskirts and the Cameguadua basin.

- **CEN-Corponor Agreement**, for supporting the BanCO2 program, which seeks to encourage the conservation of strategic ecosystems, as the Parque Natural Sisavita and the Páramo Santurbán through the compensation of rural families.
- **Working Groups between EPM, Corantioquia and the Municipality of Medellin**, for improving water quality of supply basins of minor supply systems of the Municipality of Medellin.
- **EPM, Corporación CuencaVerde Agreement**, for developing protection and improvement projects of water supply basins of Riogrande II and La Fe reservoirs, main water suppliers of the Valle de Aburrá.
- **EPM, Isagen, Cornare, WWF Alliance**, the strategy "Diálogos por la Custodia del Agua" [Dialogues for Water Preservation] was promoted, in order to create opportunities for cooperation between communities and public and private institutions for a sustainable water use.
- **Agreements between EPM, Cornare, CuencaVerde, and MasBosques**, for supporting the BanCO2 program, through which families from Eastern Antioquia are supported by means of a payment for environmental services, compensation for conservation and restoration of natural forests.

Basin Management: Activities associated with a comprehensive management of water resource in the supply basins of reservoirs and minor systems of EPM were carried out. Other relevant activities include: Forest management, biodiversity and

ecosystemic services, land management and land use, engagement with stakeholders, and participation in development projects. Some of these activities are carried out jointly with other actors, such as environmental authorities, NGOs, universities and municipalities.

Corporación Cuenca Verde Water Fund: Public-private alliance between the Municipality of Medellin, EPM, Cornare, Postobón, Grupo Nutresa, AMVA, Coca-Cola-Femsa, Latin American Water Funds Partnership and Grupo Argos for the protection of water supply basins of Riogrande II and La Fe reservoirs.

Projects associated with a comprehensive management of water resources and biodiversity, knowledge and information management, water culture, and monitoring were carried out. Some of the main activities were: protection of 95 springs (70 ha), 66.9 ha of riparian forests, 359 ha of hillside forests, intervention of 6 erosive sources, construction of 68 domestic treatment sewage systems and maintenance of 2, and construction of 100 grease traps. Likewise, 207 ha of forest were protected, supporting 41 rural families connected with the BanCO2 program; besides, 92 families were supported in the implementation of good agricultural, livestock and environmental practices. Furthermore, 65 socialization workshops and 58 working groups about environmental management and sustainable practices were conducted.

Program on Reservoirs Water Quality: It was conducted by an inter-administrative agreement held between EPM, UdeA and UNAL, with the aim of going more deeply into the understanding of the dynamic of predominant physical, chemical, and biotic processes in the Porce II, Rio Grande II and La Fe reservoirs. The program began in 2009 and its last extension finished on March 3 of 2016. The agreement addressed seven research lines: physical processes, nutrients, sediments, limnoecology, agrochemicals, emerging contaminants and organic matter. Full scholarships for 18 master degrees, 15 doctoral degrees, and some aids for undergraduate students and young researchers were granted.

Based on the information and the generated knowledge of research works from students, and directed by doctors and directors of university research groups, during 2015 the "II Seminario - taller sobre gestión ambiental en cuencas y embalses tropicales" [II Workshop Seminar on Environmental Management in Basins and Tropical Reservoirs] and the Taller de Mapas Conceptuales en los Embalses [Workshop of Concept Maps in Reservoirs] were carried out; also, an official transfer of knowledge was conducted from the seven research lines to the employees of the areas of Water and Sanitation and Electric energy.

Monitoring of Cyanobacteria in Reservoirs: Samplings of cyanobacteria were performed in the EPM, Peñol-Guatapé, Porce II, Porce III and La Fe reservoirs, in order to know their status regarding the guide level 2 of the WHO, and set strategies for their management.

Solid Waste Removal in Power Generation Reservoirs: Control of aquatic plants in power generation reservoirs was achieved, so that they did not exceed 3 ha of invasion of aquatic plants. All the hazardous wastes stored in the power generation reservoirs were managed by means of the agreement between EPM and ASEI. Conceptual designs of the Solid Waste Management Plan of Porce II were presented.

EPM Forestry Encouragement: 1,850,000 seedlings were produced in the plant nurseries of EPM, from which 1,774,417 (96.9%) were given to the protection of supply basins and systems of EPM, which is equivalent to promote sowing of approximately 1,577 ha with a density of about 900 trees per hectare.

Valles de San Nicolás Sustainability Strategy: Gathers protection and conservation actions for the supply basins of the Santa Fe reservoir; actions of monitoring of water resource, and modernization of water catchment infrastructure, Ayurá DWTP and El Retiro WWTP, in order to ensure supply in the future for the Valle de Aburrá, Valle de San Nicolás and some surrounding areas. Also within this strategy, ultrasound equipment was acquired to control algae and cyanobacteria in La Fe reservoir.

Environmental Management in the Bocas Dam: ESSA carried out a controlled release of water from the Bocas dam, with the purpose of minimizing impacts on fishery resource and prevent fish mortality in Lebrija river basin, downstream from the dam. In addition, a maintenance of the water catchment system was performed in the Bocas dam from the Palmas hydroelectric power generation plant.

Environmental Management of CHEC in Chinchiná and San Francisco Rivers Basins: This includes important activities intended to strengthen water governance, improvement of water quality, and protection of supplier sources, designing and implementation of monitoring systems, and applied research, and consolidation of strategic alliances, 9 active agreements. In addition, several actions were carried out, mainly regarding restoration of the ecosystemic environment, reforestation in priority areas, assistance in agroforestry systems, training in clean agricultural production practices, and the setting of bioengineering works, in the context of the action plan of the San Francisco river

Environmental Cultural Program of Aguas de Urabá: With the purpose of strengthening children's culture of care of natural resources, campaigns with educational institutions were made. Likewise, 309 workshops in which 9,658 children participated were conducted. Also, with the attendance of 105 people, workshops on water conservation in the upper basin of the Chigorodó river were conducted.

Assessment of Supply Basins of Aguas de Urabá: A baseline survey about the basins status of the Turbo River, La Cristalina and La Pedregosa, in order to determine strategic importance areas for water conservation.

Reforestation in Aguas de Occidente: Sowing of 1,000 trees to protect La Muñoz stream banks.

Environmental Management in the Platanillo River: 200 trees were sowed to protect the Platanillo river basin and a solid waste collection event was held: 284.9 kg in La Agudelo stream.

Related Indicators

G4-EN27 Extent of impact mitigation of environmental impacts of products and services.

EPM-01 Conservation areas.

EPM-12 Water protection.

Action: Water Consumption

This action seeks to know how water is used in processes and operations of the EPM Business Group, in order to implement programs and projects that permit to optimize its use and promote practices that contribute to the sustainability of this resource.

Gestión en 2015

Water consumption savings were achieved thanks to the implementation of programs as:

Water Recirculation in the DWTPs: Saving of 3.6 Mm³ in water consumption of the DWTPs, thanks to the use of recirculated water that is returned to the purification process for the cleaning of water plant filters. 99.5% comes from saving in the EPM plants and the remaining percentage is from Aguas de Occidente.

Water Reuse for Power Generation: 15,367 Mm³ used in power generation and cooling of turbines in EPM, of which 24 Mm³ are from reused water.

Reduction of Domestic Water Consumption: In some facilities of the EPM Business Group's companies, in line with the implementation of efficient use programs and water saving, activities as the replacement of toilet units, showers, faucets, training and maintenance, which generates savings in:

Facilities and power generation plants	14%
EPM power transmission and distribution facilities	19%
CHEC facilities	53%
ESSA facilities	17%
CENS Group facilities	31%
Delsur	8%
ENSA	16%
Aguas de Urabá	8%

During 2015, water consumption of EPM Business Group companies mainly came from surface water sources and water supply. Domestic uses and cooling are used in its production processes, as indicated below:

- 15,705 Mm³ was the total water consumption.
- 99.99% of water consumption corresponds to surface water.
- 98.82% of surface water was used for power generation:
- 2.14% of surface water was used to water supply.
- 2.97% was the reduction of the total consumption of surface water in comparison with 2014, mainly due to El Niño.

The following are the main initiatives and programs associated with an efficient use and water saving of the EPM Business Group:

- **Water Recirculation in the DWTPs:** A saving of 3.65 Mm³ in water consumption of the DWTPs was achieved, thanks to the use of recirculated water that is returned to the purification process for the cleaning of water plant filters from the plants of La Ayurá, La Cascada, La Montaña, Manantiales, San Antonio de Prado, San Cristóbal, Villa Hermosa, Aguas Frías, Santa Fe de Antioquia, San Jerónimo y Sopetrán, and also because of the recirculation process of the Acapatzingo WWTP, from the Ticsa affiliate. The objective is to maintain recirculation in the DWTPs, provided that the quality of water to be recirculated does not affect the quality of water produced.

- **Water Reuse for Cooling in Power Generation:** 15,367 Mm³ used in power generation and cooling of turbines in EPM, of which 24 Mm³ are from water reused in La Sierra, Guatapé, Playas, Tasajera and Pajarito power generation plants.

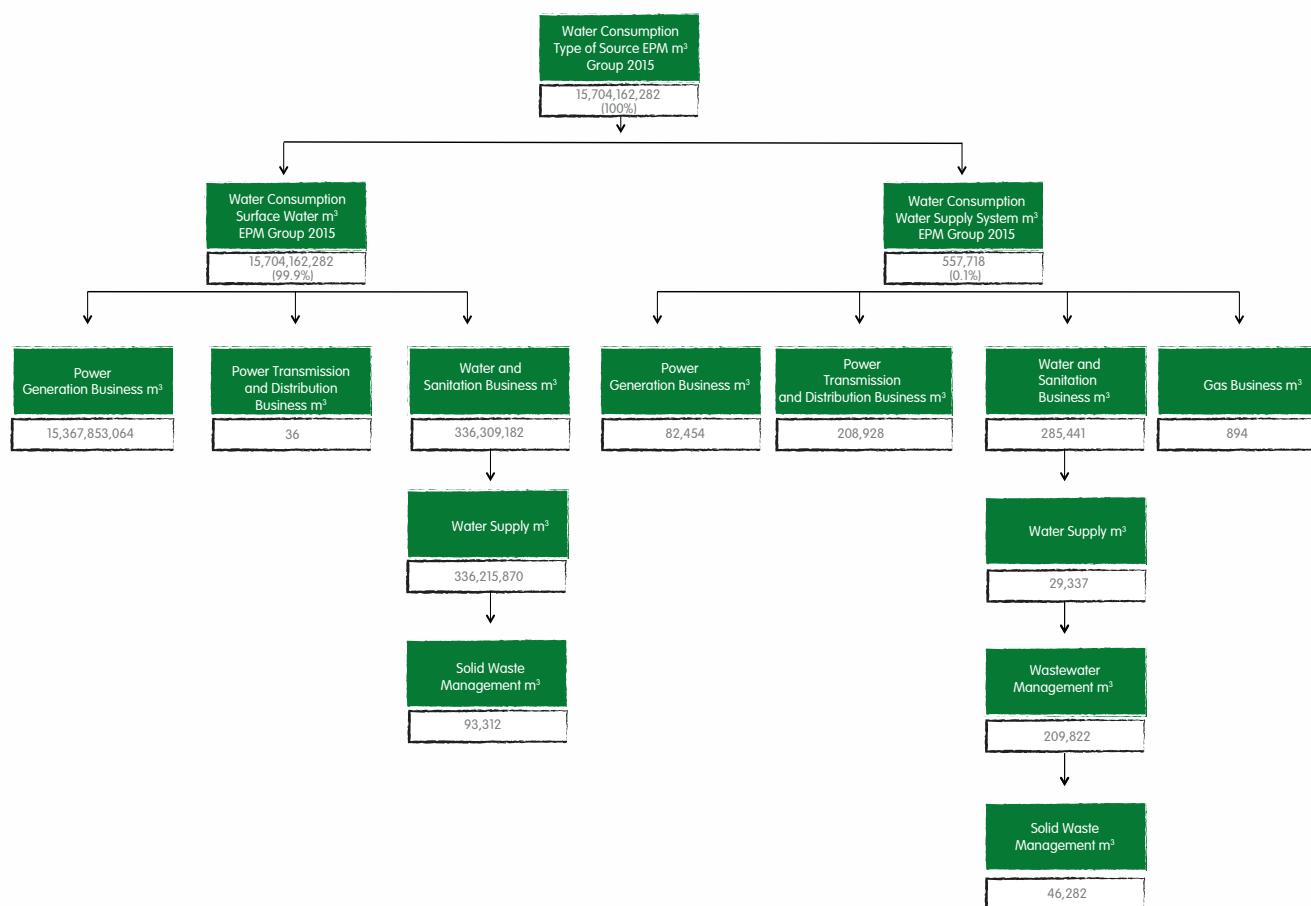
- **Monitoring of Licenses:** Water sources used by CHEC for power generation have their respective water license. The management performed ensures conservation of environmental flows required by the environmental authorities and that are managed by the hydrometeorological network of the company.

- **Non-Revenue Water Management:** NRW increased in comparison with the previous year due to the rise in water supply to the system, caused by the increase in water consumption by users, but keeping the loss percentage of the NRW. Management includes the following activities:

- Control of technical losses: pressures control, modernization and replacement of networks and connections, and systematic search for leaks.
- Control of commercial losses: control of frauds, improvement of metering and linking of consumers.
- Relationships and communication: social management in subnormal areas and informal car washes.

- **Management of NRW in Water Affiliates:** In order to comply with the established guidelines in the CRA 688 resolution, regarding the IPUF, the following actions were carried out: pressures control, replacement of networks and connections, systematic search for leaks, delimitation and zoning of water supply systems, increase of metering coverage, zoning and control of frauds.
- **Saving and Efficient Water Use:** Programs for water saving and efficient use went on in the facilities affiliated to businesses of EPM power generation, transmission and distribution; gas, and water and sanitation, achieving a decrease of water consumption thanks to the implementation of activities as the replacement of toilet units, showers and faucets; awareness and promotion of behavioral changes associated with this issue.
- **Water Reuse in the Parque Eólico Los Cururos:** Bottled water for domestic consumption is used in Chile. This water is recycled from a treatment plant and use for watering.
- **Program for Water Saving and Efficient Use in ESSA:** A maintenance of the water supply system devices was performed in the 38 company headquarters, with the purpose of minimizing water losses due to leaks or other imperfections in the system.
- **Program for Efficient Water Use in EDEQ:** Training activities and campaigns, intended for the staff, and aiming to encourage water and energy saving in the organization were carried out. Furthermore, remodelings were performed to some of the customer service offices.
- **Program for Water Saving and Efficient Use in EEGSA:** 4 meters were installed in different headquarters to record water consumption, and the installation of 10 ecological toilets in La Castellana facilities was initiated.
- **Program for Rational and Efficient Use of Drinking Water in Delsur:** Monthly consumption of the head office—as well as nine customer service offices—was recorded. A plan for rational and efficient use of drinking water was designed. It will be implemented in 2016. Monthly readings were used to identify leaks, which were solved promptly.
- **Program for water saving and efficient use in ENSA:** Recording of water consumption was initiated, which permits to review historical consumption data. The policy of good environmental practices was formalized. This provides practical advice to decrease water consumption in the facilities. Also, 25% of the staff participated in a training on environmental topics (energy, recycling, water consumption). The quantification of water consumptions of two new facilities (Sabanitas and Chepo) was also initiated. And besides, a program was carried out on techniques to decrease water consumption.
- **Efficient Water Use in Aguas de Malambo:** 2,926 water micrometers were installed. Also, 800 people participated in socializations and workshops on water care.
- **Efficient Water Use in Aguas de Urabá:** A Water culture campaign was made based on theatrical and audiovisual methodologies, to promote appropriate social practices on efficient water use in the communities of the municipality of Turbo.

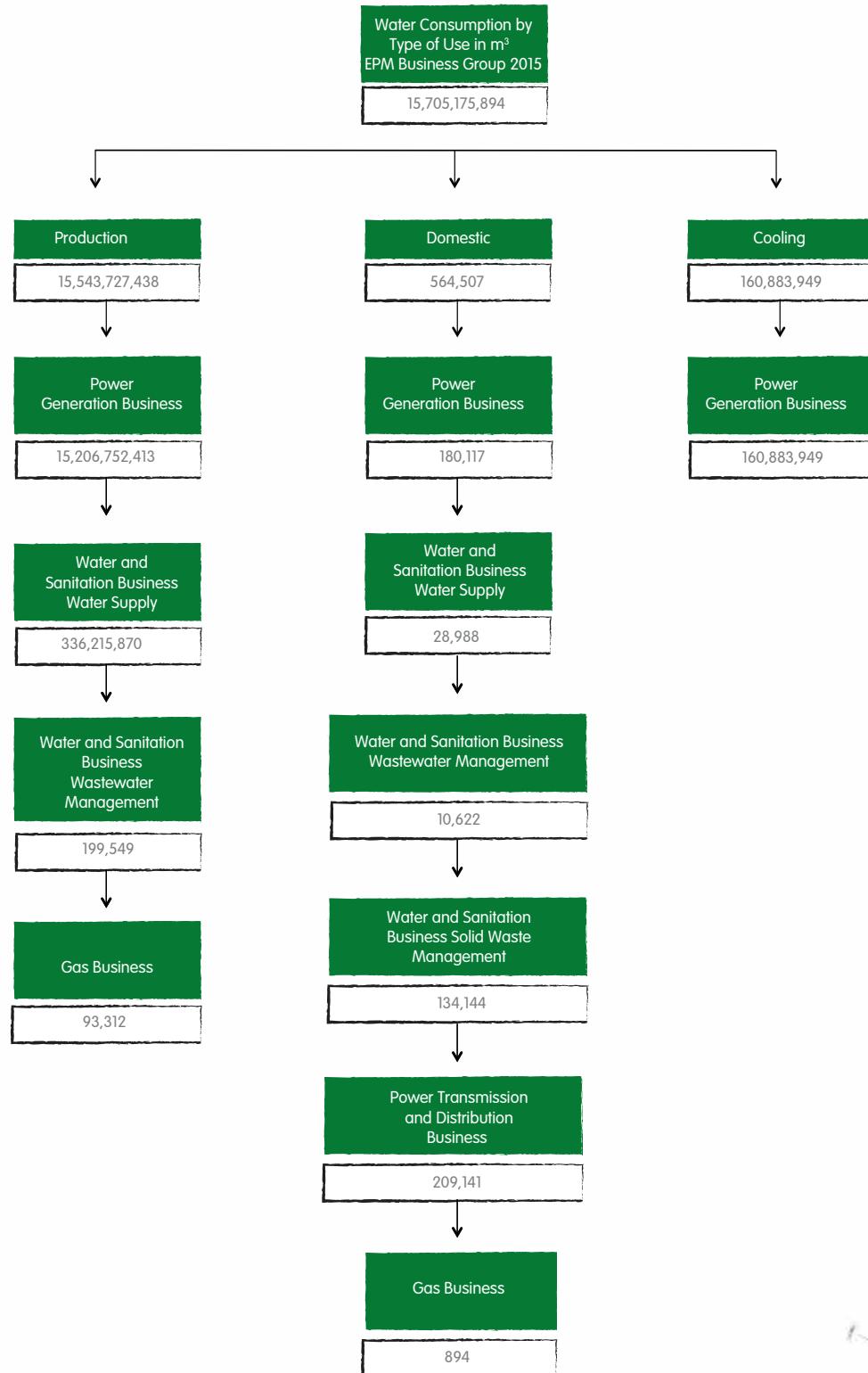
- Water saving and efficient use in Emvarias:** The company made progress in the development and implementation of the Program for the efficient and rational use of water in car washing activities of EMVARIAS fleet, as well as in the headquarters located in the base of operations and maintenance.



Water Consumption in m³ by Type of Source EPM Business Group

Business	2014		2015	
	Surface	Water Supply System	Surface	Water Supply System
Power generation	15,886,621,750	94,599	15,367,853,064	82,454
Transmission and distribution	45	110,645	36	208,928
Gas	N.A.	419	N.A.	894
Water and sanitation	Water supply	298,269,665	23,217	336,215,871
	Wastewater management	N.R.	179,059	N.R.
	Solid waste management	N.R.	64,399	93,312
Total	16,184,891,460	472,338	15,704,162,283	577,718

- 2.9% was the reduction of the total consumption of surface water in 2015 in comparison with 2014, mainly due to the decrease in the consumption in power generation caused by El Niño.
- The increase in consumption from water supply system in the business of transmission and distribution is primarily due to including data from our international affiliates in 2015.
- Increase in gas consumption due to the growth in the number of facilities.



Water Consumption in m³ by Type Use EPM Business Group

Business	2014			2015		
	Production	Domestic	Cooling	Production	Domestic	Cooling
Power generation	15,830,680,053	224,167	59,222,772	15,206,752,413	180,717	160,883,949
Transmission and distribution	N.A.	110,946	N.A.	N.A.	209,141	N.A.
Gas	N.A.	419	N.A.	N.A.	894	N.A.
Water and sanitation	Water supply	298,269,665	23,217	N.A.	336,215,871	28,989
	Wastewater management	N.R.	7,792	N.A.	199,549	10,622
	Solid waste management	N.R.	64,399	N.A.	93,312	134,144
Total	16,128,949,718	430,940	59,222,772	15,543,261,145	564,507	160,883,949

- Increase in water use for cooling, due to the growth of power generation of La Sierra thermal power station.
- Increase in water consumption from domestic and production use in the solid waste management due to including data from new facilities in 2015.

Volume in m³ of recirculated/reused water EPM Business Group

Power generation	24,609,585
Transmission and distribution	0
Gas	0
Water and sanitation	Water supply
	3,654,858
	Wastewater management
Solid waste management	104
	0
Total	28,264,547

- 87.1% of recirculated/reused water corresponds to the power generation process of EPM.
- 3.6 Mm³ corresponds to water recirculation used in the washing of filters of the DWTP.
- No comparison with previous years is presented because there was no data available from affiliates for other years.

Related Indicators

G4-EN8 Total water catchment by sources
Electricity sector: Report the use of water in processes in general, refrigeration and consumption in thermal and nuclear energy plants, including the use of water in the management of ashes and carbon cleaning.

G4-EN10 Percentage and total volume of recycled and reused water.

Action: Wastewater Management

The EPM Business Group companies are implementing some measures for managing the wastewater discharges⁽¹⁾ resulting from their activities and processes in which water consumption is involved.

Gestión en 2015

En la PTAR San Fernando se removieron 9,152 ton/At the San Fernando WWTP 9,152 BOD/year tonnes and 10,952 TTS/year tonnes were removed. This action avoided the arrival of those amounts of pollution to the Medellín River.

In the El Retiro WWTP 153 BOD/year tonnes and 124 TSS/year tonnes were removed in order to avoid the contamination of the Pantanillo river and the impact on the quality of the La Fe reservoir.

Aguas de Urabá made progress in the development of the Sanitation and Wastewater Management Plan. COP 8,043 million were invested in the development of works in the municipalities of Carepa and Chigorodó. In addition, the Ministry of Housing and Territorial Development approved resources, subject to conditions, of COP 20,783 million to carry out the Project of Extension of the Sewerage System in the southern district of the municipality of Turbo.

The most modern Leachate Treatment Plant in the country was built in the La Pradera landfill by Emvarias, with an investment above COP 15,000 million.

The main results and programs that the EPM Business Group companies carry out to manage the disposal of wastewater produced during their processes and activities are presented below:

- The flow discharged by the facilities of the Business Group companies in 2015 totalled 217 mm³.
- The flow discharged by EPM in 2015 totalled 210 mm³. This indicates an increase of 99.5% compared to the wastewater disposal in 2014, mainly because of the discharge of water of La Sierra thermoelectric plant which increased its production due to the effects of the El Niño phenomenon on the hydroelectric power generation in the country.
- 77.98% of the EPM wastewater discharges come from the La Sierra thermoelectric plant.
- 19.61% of the total amount of wastewater discharges of the EPM Business Group come from the San Fernando and El Retiro WWTP which treat the wastewater of the southern Valle de Aburrá and El Retiro.

The attached tables present the wastewater discharges related to production processes by subsidiaries, and the domestic wastewater discharges by companies.

Additionally, the initiatives and projects developed in 2015 related to the wastewater management are presented below:

⁽¹⁾In Colombia, the Decree No. 3930 from 2010 specifies that wastewater disposal is the final discharge of a liquid medium including elements, substances or chemicals into a body of water, a sewerage system or the soil.

• **Valle de Aburrá Sanitation and Wastewater Management Plan:** in order to move forward with the SWMP and meet the target of removing 160 BDO/day tonnes from the Medellín River, and increasing the level of oxygen dissolved at least at 5 mg/l, the operation of the San Fernando WWTP continued in 2015. Progress was also made with the building of the Bello WWTP, the North Interceptor (Interceptor Nortel), and the Centro Parilla projects aimed at the modernization of the water supply and sewerage system in downtown Medellín.

• **Improvements in the efficiency of the San Fernando WWTP:** based on the study to improve the WWTP, some actions were implemented in 2015:

- Chemically-assisted treatment: the system of Aluminum Polychloride receipt, storage and dosing was designed. The product is applied according to the requirements to adjust the concentration of total suspended solids when these are above the design parameter.
- Switched diffusers: all the fine bubble diffusers of the aeration tanks were switched. This action helped to reduce the electrical energy demand.

• **On-line monitoring of wastewater:** five stationary monitoring stations and two portable stations were installed at critical points of the sewerage system. The aim of this action was providing early warnings on possible anomalies in the water quality, produced mainly because of industrial wastewater discharges, which may affect the biological process of the WWTPs and reduce the removal of pollution load.

• **Sludge treatment system:** the sludge treatment systems of the San Antonio de Prado and Barbosa DWTPs were built in 2015. In 2016 the solutions targeting the La Ayurá, Manantiales, Caldas and Aguas Frías DWTPs will remain in the spotlight. The timetable for the implementation of the projects

is delayed because the "turn-key" building and design stage has been extended more than expected due to the specialty of the required suppliers.

• **Effective use of solid organic waste:** solid organic waste is the by-product of the sewage sludge produced in the municipal wastewater treatment plants. In 2015, the San Fernando WWTP solid organic waste was applied according to the specifications of the Decree No. 1287, 2014. Additionally, EPM set up a working table along with Corantioquia and the Metropolitan Area of Valle de Aburrá to analyze important aspects related to the management of this product.

• **Inspection, monitoring and wastewater and septic tanks treatment system program:** the facilities of the EPM Business Group companies located in areas which are not connected to a sewerage system are provided with a wastewater and septic tanks treatment system. The same happens in the facilities of Power Transmission and Distribution Businesses, in the Power Generation camps and facilities and in the Water and Sanitation tanks and facilities.

Likewise, in the EPM Business Group subsidiaries, ESSA carried out the characterization and the physico-chemical analysis of the 11 wastewater discharges from the septic tanks of the Termobarranca plant that is located in the Berlín rural settlement of the municipality of Barrancabermeja. Meanwhile, CHEC obtained some licenses for wastewater discharges, managed some others with the responsible environmental authority, and remained monitoring the wastewater discharges of its facilities every year. Additionally, EEGSA performed technical studies on wastewater for the La Castellana tourist center and the headquarters of the Guatemala substation. On the other hand, the Ticsa subsidiary uses biological treatment on its wastewater discharges.

- **SWMP in the systems operated by Aguas de Urabá:** in 2015, the sewerage systems operated by Aguas de Urabá had some interventions and a total investment of COP 8,043 million. The elimination of five wastewater disposals in the municipality of Carepa and two wastewater disposals in Chigorodó was accomplished.

Furthermore, the Ministry of Housing and Territorial Development approved resources, subject to conditions, of COP 20,783 million to carry out the Project of Extension of the Sewerage System in the southern district of the municipality of Turbo. This project will contribute to the expansion of the coverage, the affiliation of new users and the elimination of individual wastewater discharges that the residents of the municipality produce in the Puerto Tranca and Veranillo sewage pipes. The sewerage service is expected to have a wider coverage and be provided to other 4,963 homes along with the building of 17.3 km of sewerage system and 21.7 km of connection pipes.

- **WWTP, Aguas de Malambo:** the Ministry of Housing and Territorial Development approved resources, subject to conditions, of COP 18,850 million to build the wastewater treatment plant. This project will start in 2016.
- **Leachate treatment plant:** with an investment above COP 15,000 million, Emvarias built the most modern leachate treatment plant of the country in the La Pradera landfill. The building of this plant ensures compliance with the Resolution 631, 2015.

Wastewater discharges linked to production processes m³/year EPM Group

Company	Treatment type	Destination	2013	2014	2015
EPM	None	Sewerage system	2,687,927	2,256,485	2,591,476
	None	Water current	15,221	45,285	31,940
Aguas de Urabá	None	Surface water	N.R.	N.R.	575,026
	None	Sewerage system	N.R.	34	30
Aguas de Occidente	None	Sewerage system	N.R.	1,864,702	14,376
Aguas de Oriente	None	Surface water	N.R.	N.R.	43,001
Aguas de Malambo	None	Sewerage system	N.R.	N.R.	226,665
EPM	Secondary	Water current	45,219,838	43,402,626	43,207,801
Aguas de Urabá	None	Sewerage system	N.R.	256	384
Aguas de Occidente	None	Sewerage system	N.R.	N.R.	813
	Secondary	Current	N.R.	N.R.	201,952
Ticsa	Biological	Current (River)	N.R.	N.R.	8,828,174
Emvarias	None	Sewerage system	N.R.	64,399	39,637
	None	Surface water	N.R.	N.R.	174,844
EPM La Sierra Thermoelectric Plant	Secondary (industrial waste)	Water current	9,962	6,698	10,391
	None (cooling)	Water current	56,184,786	59,222,768	160,876,800
Total			104,117,734	104,998,551	216,823,311

- The list of registered DWTP includes 10 EPM plants, 7 plants of Aguas de Urabá and 3 plants of Aguas de Occidente.
- The list of WWTP includes 2 EPM plants, 1 plant of Aguas de Urabá, 1 plant of Aguas de Occidente, 1 plant of Ticsa Company and 2 wastewater pumping stations of Aguas de Urabá.
- Increased amount of wastewater discharges from the Aguas de Urabá DWTP and WWTP due to the registration of new facilities in 2015.
- Increased wastewater discharges in the La Sierra thermoelectric plant due to the increased power generation resulting from the effects of the El Niño phenomenon on the hydroelectric power generation of the country.

► Domestic wastewater disposal Destination - Sewerage system m³/year EPM Group

Business	2013	2014	2015
Transmission and Distribution	50,196	39,092	55,661
Gas	600	203	N.R.
Water and Sanitation	Water Supply	15,863	19,766
	Solid Waste Management	N.R.	64,399
Administrative and Commercial Offices	147,305	159,124	159,501
Total	213,964	282,584	272,913

-Domestic wastewater disposal includes administrative offices, facilities in operation, tanks and pumping processes.

-Increase of 42.4% of wastewater discharges from the Transmission and Distribution Business according to the entry of information of some subsidiaries for 2015.

► Sanitation of the Medellín River Investment implemented and projected by EPM

Sewerage system modernization and elimination of wastewater discharges

Period	Investment COP million	Physical goal (km)	Eliminated wastewater discharges
2004-2015	404,922	311.2	846
2016-2018	344,589	158.4	314
Total	749,511	469.6	1,160

► San Fernando wastewater treatment plant

Concept	COP million
WWTP building	137,652
Optimization 2015	1,308
Optimization 2016-2018	34,350
Extension process 2016-2018	100,000
Total	273,310

Bello wastewater treatment plant

Concept	COP million
Implementation 2008-2015	478,492
Projection 2016-2018	504,174
Total	982,666

Interceptor Norte de agua residual

Concept	COP million
Implementation 2008-2015	154,936
Projection 2016-2018	6,815
Total	161,751

Wastewater South Interceptor

Concept	COP million
Ejecución 2008-2015	47,107

North Interceptor pipe branches for wastewater

Concept	COP million
Implemented 2004-2015	1,237
Projected 2016-2018	33,091
Total	34,328

Total Sanitation and Wastewater Management Plan - EPM Valle de Aburrá

Concept	COP million
Implemented 2004-2015	1,177,239
Projected 2016-2018	1,071,434
Total	2,248,673

Data are estimated according to the projections for 2016-2018 and these values may vary.

Related Indicators

G4-EN22: Total wastewater discharges according to their type and destination



Aspect: Human Rights

With the promulgation of its Human Rights institutional policy, the EPM Group commits itself to adopt in its own operations and to promote in the third parties' operations, the compliance of what is stated in the Universal Declaration of Human Rights and its protocols, conventions and binding agreements, including the International Humanitarian Law, the Colombian Political Constitution and the Colombian legal framework. For the organization, it is a challenge in terms of its own sustainability and assumes it with the conviction that respect for human dignity is a fundamental commitment on the sustainable human development agenda.

Stakeholder's Vision

A due diligence is indispensable for the respect and promotion of human rights in the Group's practices (including its supply chain), evaluating whether the relationships of the company with its stakeholders can turn into an abuse of human rights, and identifying the effects of business activities on human rights according to the context..

Importance

Viability of operations and reputation resulting from practices of respect and promotion of human rights represent high values for the company and for people' dignity.

From the point of view of risk management: reputation, operation, finance and legal.

Main achievements

Goals 2015	Achievements 2015	Compliance
Human rights risk map designed for national affiliated companies of energy and ENSA.	Risks were identified in the affiliated companies of energy. Due to internal adjustments in ENSA, this affiliate requested the shift of the implementation of the HR management model.	Partial
Approach strategies drawn up and in progress for national affiliated companies of energy and ENSA.	The action plans were defined and implemented in the affiliated companies of energy. Due to internal adjustments in ENSA, this affiliate requested the shift of the implementation of the HR management model.	Partial
Internal training program 30% executed for national affiliated companies of energy and ENSA.	Training programs were started in the affiliated companies of energy. Due to internal adjustments in ENSA, this affiliate requested the shift of the implementation of the HR management model.	Partial
Adoption of the human rights policy in national affiliated companies of energy and ENSA.	The policy was adopted in the affiliated companies of energy. Due to internal adjustments in ENSA, this affiliate requested the shift of the implementation of the HR management model.	Partial
Internal training program 70% executed in EPM.	The training program counted on the participation of 436 people. The compliance rate was 72.66%, exceeding the 70% expected.	Total

Challenges

Challenges	Coverage	Year in which it will be achieved	Compliance indicator
Human rights risk map designed for national affiliated companies of water and sanitation and an international affiliate.	Water and Waste Collection	2016	Human rights risk atlas
Approach strategies drawn up for national affiliated companies of water and sanitation and an international affiliate.	Water and Waste Collection	2016	Approach plans
Adoption of the human rights policy in national affiliated companies of water and sanitation and an international affiliate.	Water and Waste Collection	2016	Adoption of the policy
Internal training program 100% executed in EPM and national affiliated companies of energy.	EPM and national affiliated companies of energy	2016	Trained employees

Related Indicators

G4-HR1 Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.

G4-HR2 Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.

G4-HR3 Total number of incidents of discrimination and corrective actions taken.

G4-HR4 Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.

G4-HR5 Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.

G4-HR6 Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.

G4-HR7 Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations.

G4-HR8 Total number of incidents of violations involving rights of indigenous peoples and actions taken.

G4-HR9 Total number and percentage of operations that have been subject to human rights reviews or impact assessments.

G4-HR10 Percentage of new suppliers that were screened using human rights criteria.

G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken.

G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms.

G4-SO11 Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.

G4-EU22 Number of physically or economically displaced people and the compensation granted, detailed by type of project.

Action: Human Rights Management in Projects under Construction

Commitment to the respect and promotion of human rights is a business performance premise in the development of all the projects conducted by the organization. The institutional approach to the subject, whose framework is the human rights institutional policy and the guidelines that complement it, provides a basis on which each department responsible for implementing the project defines priorities and lines of action, according to the needs identified in the environment through the relation with stakeholders.

To this end, every time EPM starts the construction of an infrastructure project that involves an intervention with significant impacts, the company carries out an assessment to define specific strategies to deal with the risks identified in the impacted territories. In the projects whose construction time is considerably extended, assessments are conducted periodically in order to keep risks up to date.

Management in 2015

EPM coordinated the works for the comprehensive restoration of the living conditions of the affected population in Ituango, in which the International Organization for Migration (IOM), the Antioquia Governor's Office, the Ministry of Culture and the National Environmental Licensing Authority (ANLA) also took part. Meanwhile, in the Nueva Esperanza project, criteria for the economic assessment of the effect on the families located in the easement corridors were implemented.

The Ituango Hydroelectric Project, which is being built by EPM in northern Antioquia, is currently the largest one of the country. It is located 171 km from the city of Medellin, between the municipality of Santa Fe de Antioquia (south) and the Ituango river (north). The most important works are on the right bank of the Cauca river. In 2018, when its construction will be completed, the plant will have 8 generating units and 2,400 megawatts of power.

The project significantly boosts the economy of the municipalities of influence, and mainly of Ituango, San Andrés de Cuerquia and Toledo, where the major works are being constructed with the purchase of goods and services and the creation of direct and indirect employments. Due to the complexity and scope of the project, EPM has been developing studies on socio-political risks that include aspects related to human rights, in order to identify the critical factors in this matter. Based on the risks identified, the Plan on Human Rights

and International Humanitarian Law was designed, which establishes the lines of action in this area.

In response to the request made by EPM to perform processes of search and exhumation of unidentified human remains in the project areas, the Office of the Attorney General of Colombia developed in 2015 two exhumations in the community of Barbacoas, municipality of Peque, department of Antioquia; where, due to humanitarian reasons, the population has buried bodies swept along by the Cauca river, and where there are bodies of people who violently died at the hands of armed groups outside the law. The proceedings were held in the cemetery of this community and on the beaches El Terrón, Cepe, El Fardo, Boquerón, Nosuba and El Saibón.

During 2015, some management measures were defined with 59 families and 297 miners, regarding the type of resettlement, the housing designs and the production projects. The comprehensive action program against anti-personnel landmines (MAP), MUSE and AEI was also implemented in three components: 1) Education on landmine risk for the community in the 5 municipalities most affected by these devices: Ituango, Yarumal, Valdivia, Briceño and San Andrés de Cuerquia, 2) Physical and psychosocial rehabilitation of landmine victims and their families, 3) Provision of emergency demining equipment. A total of 1,500 people were trained.

As part of the project intervention, the strategy of psychosocial assistance for victims who have suffered some kind of victimization was executed, providing individual, group and family care. Group workshops promoting reconstruction of historical memory were also conducted. A total of 6,339 people, representing 500 families, participated in the activities.

Additionally, a strategy for prevention of human trafficking was implemented in the municipalities of influence, which was carried out through a partnership agreement with the corporation Espacios de Mujer. In 2015, 12 technical assistance workshops were provided to local institutions and other 12, to the community, with a total of 612 participants.

In terms of the due diligence in the acquisition of lands for the project, a collaboration agreement was made with the Superintendence of Notaries and Registries and the Department of Information Systems and Land Registry of Antioquia. Moreover, a technical committee was made up for the analysis of the respective cases.

Nueva Esperanza Project

This project is part of the National Transmission System (STN) and aims at increasing the capacity of power transmission, as well as the reliability of the electrical system for Bogotá, Cundinamarca, northern Tolima, Meta and Guaviare. It includes the construction of a line of 500,000 volts, another of 230,000 volts, and a 500/230 kV transformer substation, which was awarded to EPM by UPME through public call.

In 2015, the process of presentation of environmental licenses and environmental management plans was carried out in 21 municipalities and 94 rural populations of influence. At the same time, the negotiation process for the relocation of 11 families located in the easement corridor was started, in order to ensure the restoration of their living conditions.

In keeping with the strategy of respect for the rights of people impacted by the project, five community service offices were set up, through which grievances and complaints are received to carry out the process of analysis and response.

Ethnic Minorities

As part of the work on human rights, when the appropriate authority certifies the presence of ethnic communities in the areas where the projects are developed, a protocol that is regulated by law is activated to ensure respect for their customs and cultures. In this regard, it is worth mentioning that through Certification 657 dated May 14 of 2015, the Directorate of Prior Consultation of the Ministry of Internal Affairs certified that the Nutabe de Orobajo Indigenous Council is not subject to prior consultation under the Ituango Hydroelectric Project, and that this Council has no recognition or registration as an indigenous community by the Directorate of Indigenous Affairs, ROM and Minorities of the Ministry of Internal Affairs.

During 2015, no incidents related to violations of indigenous rights were reported in EPM operations..

Additionally, in the area of influence of the Jepírachi wind farm, in Upper Guajira, several works approved by the Wayuu community were carried out in 2015, including the signing of an agreement with Corpoguajira for the installation of three water solutions (desalinatingors using air) in project areas; the SENA agreement (strengthening of the Arutkajui and Kasiwuolin communities); and coordination with the Vice-Presidency of Water EPM (rural water supply systems and CET waters for the recovery of the desalination plant, and formation of communities for the sustainability scheme).

Legal actions taken in the Ituango Hydroelectric Project

Concept / Indicator	2013		2014		2015	
	Attended	Solved	Attended	Solved	Attended	Solved
Official letters	154	154	12,212	12,212	12,496	12,496
Right to petition	393	393	1,214	1,214	442	280
Writs for protection of constitutional rights	4	4	8	8	11	8
Claims attended	0	0	10	0	0	0

Source: Vice-Presidency of Projects and Engineering

Legal actions taken in the Nueva Esperanza Project

Concept / Indicator	2014		2015	
	Attended	Solved	Attended	Solved
Official letters	N.A.	N.A.	68	45
Right to petition	4	4	21	18
Writs for protection of constitutional rights	10	10	0	0
Claims attended	18	12	0	0

Source: Vice-Presidency of Projects and Engineering

Related Indicators

G4-HR8: Total number of incidents of violations involving rights of indigenous peoples and actions taken.

G4-HR9: Total number and percentage of operations that have been subject to human rights reviews or impact assessments.

G4-SO11: Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.

G4-EU22: Number of physically or economically displaced people and the compensation granted, detailed by type of project.

Action: Institutional Management in Human Rights

In 2011, EPM undertook the task of implementing an institutional working model focused on Human Rights, as a fundamental step towards strengthening the relations with all its stakeholders. With this endeavor, the company formally promoted the responsibility of respecting human dignity in all its business operations.

With the proclamation of the institutional Human Rights policy in 2012, the organization ratified and made public this commitment to the respect for the Human Rights in its business activities, and it laid the formal foundations for its implementation in the entire EPM Business Group. This decision is consistent with the adherence of the company to the United Nations Global Compact in 2006, and it also comprises the promotion of the aforementioned respect in the companies that form its supply chain.

The institutional management on this subject comprises actions and the adoption of instruments and tools to strengthen the company's management, in order to promote respect and account for the progress in the implementation.

Management in 2015

In 2015, the management was mostly focused on starting the deployment of the Human Rights model in the Colombian subsidiary companies from the energy sector. With this purpose, current and potential risks were identified in the operation of each one of the Group's companies as a necessary first step in the approach to the management. In-house training and the participation in external initiatives, such as "Guías Colombia" and the Energy Mining Committee, were other relevant matters that occurred over the period.

In 2015, a total of 422 EPM employees participated in the Human Rights training program, which is equivalent to 73% of the program's target population. The purpose of the training program is to enable a conceptual approach to the subject and addressing the responsibility that the companies should assume, emphasizing the way how EPM does it in its own operations and in those in which it operates through third parties. The program included the participation of the Office of the United Nations High Commissioner for Human Rights in Colombia, and it is framed within the purpose of promoting an institutional culture focused on Human Rights.

In accordance with its growing concern for developing business practices that promote respect for Human Rights, EPM maintained an active participation in different initiatives related to this subject. One of the most notable initiatives in this regard is the Energy Mining Committee, an organization for the study, reflection and recommendation on how to improve the performance of both the sector and the Colombian official institutions in relation to the respect for the Human Rights with regard to the public and private safety. The company is also actively involved in "Guías Colombia," a multi-actor

initiative formed by companies, members of the civil population and the Government and focused on the promotion and orientation of company-environment relations, under minimal criteria of observance and respect for Human Rights and the International Humanitarian Law in Colombia. In 2015, EPM participated in the preparation of the guides for institutional strengthening and supply chain management.

There is freedom of association in EPM; 99.63% of the employees are members, directly or by extension, of one or more than one of the three existing labor unions. In 2015, the Collective Labor Relations Department was created, which is in charge of coordinating the management of the union labor relations and the addressing of their needs. In its entire history in the country, the organization has not faced any discrimination claim. The membership percentage in the EPM Business Group is 84.8%.

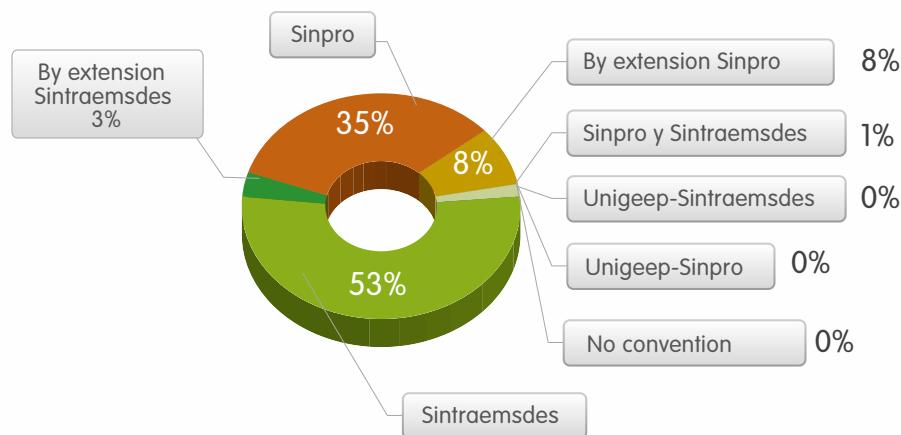
Regarding the management in the EPM Business Group, in 2015, the deployment of the institutional work on Human Rights was started in the Colombian subsidiary companies from the energy sector. In accordance with the recommendations from the United Nations Guiding Principles, CHEC, EDEQ, CENS and ESSA complied with the identification of risks as a fundamental step to establish a route for the initial management. Additionally, approach plans were designed for each company to address the prioritized risks, and the institutional Human Rights policy was formally adopted. 2016 will be the year for the consolidation of the action plans on the subject. Finally, conceptual standardization workshops were started in relation to the subject with the departments involved in risk management.

Training on Human Rights

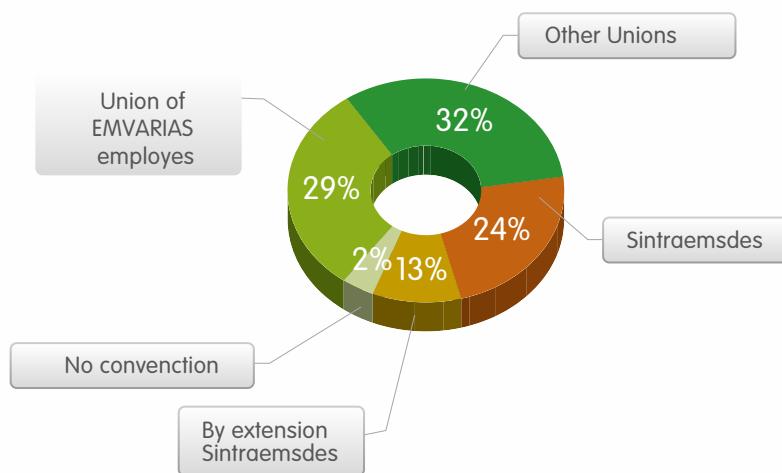
Programs	Participants	Hours of training
Course on Human Rights and companies	422	3,376

Source: Vice Presidency of Human Development and Organizational Capabilities

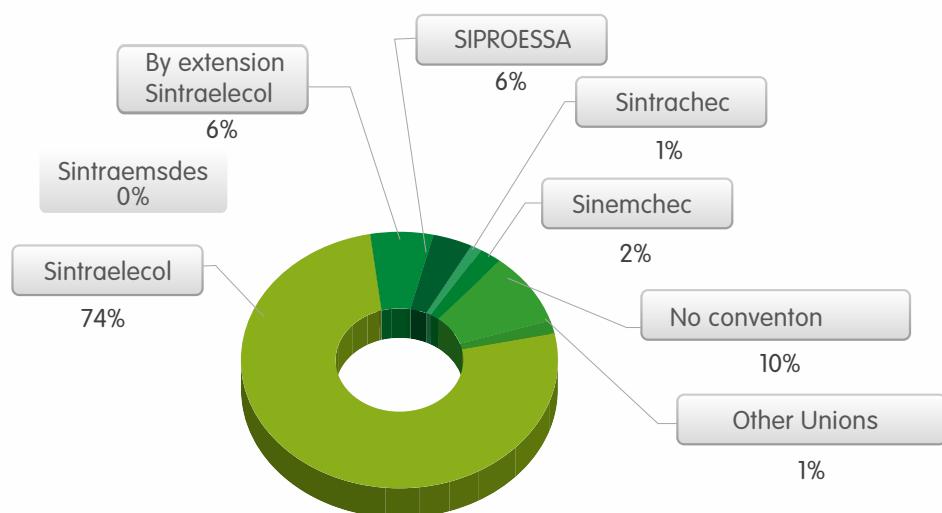
Affiliation to Unions in 2015 - EPM (number of people)



Affiliation to Unions 2015 - Water and Sanitation (number of people)



Affiliation to Unions in 2015 - Energy Subsidiaries (number of people)



From a total of 11,327 employees of the EPM Business Group, 9,604 are members of a labor union. Fuente: Vicepresidencia de Desarrollo Humano y Organizacional
Source: Vice-Presidency of Human Development and Organizational Capabilities

Related Indicators

G4-HR2: Total hours of employee training on policies and procedures related to the human rights aspects that are relevant for their activities, including the percentage of employees trained.

G4-HR3: Total number of incidents of discrimination and corrective actions taken.

G4-HR4: Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.

G4-HR10: Percentage of new suppliers that were screened using human rights criteria.

G4-HR11: Significant actual and potential negative human rights impacts in the supply chain and actions taken.

G4-HR12: Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms.

Action: Management of Human Rights in the Supply Chain

Aware of the need to strengthen the management of Human Rights in the business practice and knowing that the operation through third parties may involve risks, EPM undertakes to promote in its Supply Chain the insertion of practices and the adoption of instruments consistent with the respect for Human Rights in the terms established by the Human Rights Policy and the stakeholders engagement model.

In this sense, during 2015, the organization focused part of its efforts to promote this topic with the companies that are part of its supply chain.

Management in 2015

As a way of bringing this topic to its suppliers, the on-line course on Human Rights designed and developed by EPM was implemented in 2015. Additionally, some clauses related to the respect for Human Rights were kept in the contract documents and the Code of Conduct for suppliers and contractors remained in force, establishing criteria for legal, ethical, environmental, social and governmental aspects for this group.

As part of an appropriate procedure to deal with risks on Human Rights, EPM constructed an institutional risk map, which is monitored and periodically updated in order to maintain current treatment strategies.

Although an individualized supplier analysis has not been performed, those issues associated with labor such as freedom of association, discrimination due to various reasons and use of child labor in the supply chain have been identified, in a general way, as issues of special attention and approach.

Among the strategies of response to these findings and in order to strengthen institutional work on Human Rights, clauses establishing the obligation to observe the Human Rights institutional policy were kept in the contracts signed with third parties during 2015. This policy, among others aspects, prohibits child labor and favors decent work, i.e., without discriminations, well paid and developed in a safe and healthy environment.

Furthermore, until December 2015, a total of 4,141 suppliers have signed the Code of Conduct, which is included in the contract documents and whose purpose is that every supplier and contractor ensures that its employees, representatives and stakeholders understand and observe the institutional guidelines related to Human Rights, labor standards, protection of information, quality and environment, corruption and bribery.

In 2014, the organization started the "Institutional mechanism for attention to incidents on Human Rights for workers of contractor companies". It is an instrument designed to facilitate the relationship with this group and identify actions to strengthen processes related to contractual management. It is coordinated by the Supplier Diversity and Development Unit, an area that according to the specific features of each incident, makes up a

team with representation from different areas of the company, conducts the investigation and gives a final answer. During 2015, eight incidents related to labor issues were reported; five of them were solved and documented, one was sent to CENS because the contractor is located in Norte de Santander, and the other two are currently being processed.

Additionally, with the intention of creating a culture of respect for Human Rights and as a way of raising awareness among the companies that are part of its supply chain, EPM developed and implemented an on-line course on Human Rights and Businesses addressed to its suppliers. During the year, 77 companies completed the course, and the implementation of incentives in the rating of the contractual process for those suppliers that demonstrate their participation in the course is being considered as a future possibility.

In 2015, EPM took part in the development of the Guide for the Supply Chain Management, under criteria of Human Rights, promoted by Guías Colombia, an initiative that supports the promotion and guidance of business-environment relations under minimum standards of compliance and respect for Human Rights and the International Humanitarian Law in the country.

Related Indicators

G4-HR1: Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.

G4-HR5 Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.

G4-HR6 Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.

G4-HR10 Percentage of new suppliers that were screened using human rights criteria.

G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken.

G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms.

Action: Security and Human Rights

In EPM, the management actions aimed at ensuring the protection of the operations, employees and assets are performed in a careful way in relation to the Human Rights in the operations carried out by the private security agencies and in those operations derived from the fulfillment of covenant with the public forces.

Based on its institutional Human Rights policy, the organization is committed to "include in the security service contracts and covenants signed with private firms and official security organisms, explicit commitments of respect and promotion of the Human Rights. In no case will the company accept the provision of these services by social actors who are outside the constitutional and legal framework."

As part of the Energy Mining Committee, the company embraces and applies the dispositions of the Voluntary Principles, an international initiative that proposes a set of guiding principles for the companies in their relation with the public forces, private security organizations and the civil society, in the development of its security strategies in accordance with the understanding that the organization assumes the responsibility for the management of the impacts generated by the actions that are developed in order to effectively comply with this protection, as these impacts are the responsibility of the companies, which is why they must be part of their security strategy.

Management in 2015

Through the Energy Mining Committee, the organization worked with other companies from the sector in the preparation of a document with recommendations for the execution of covenants with the public forces in such a way the Human Rights are fully respected. Additionally, the organization thoroughly monitored the contracts signed with the private security agencies to revise their practices in relation to the Human Rights.

In 2015, EPM signed three covenants with the Police and the Army for their technical-operative assistance in strengthening the protection and security conditions required in the facilities, infrastructure and activities related to the organization's operation. These collaboration covenants were signed with the National Ministry of Defense and explicitly include the obligation to "be respectful towards the international Human Rights and International Humanitarian Law treaties signed by the Colombian State, promoting their preservation and defense." It is important to highlight that these agreements are cooperation covenants and that EPM has no authority or responsibility to give operational instructions to the members of the Police or of the Army.

By means of the structure of the covenants established with the Army, 1,300 soldiers from several brigades and their corresponding units received training and participated in in-person instruction courses with instructors and content from the organization. As part of the covenants established with the National Police, the institution constantly holds training sessions on Human Rights.

In the reported period, no claims of incidents related to Human Rights were received through the channels established by the company for this purpose.

With regard to the private security companies, EPM demands from the service providers the strict fulfillment of the provisions currently in force in Colombia and, specially, of the regulation issued by the Superintendence of Private Surveillance and Security, including the background check to the personnel hired by the contractor firms. In 2015, the firms Segurcol Ltda. and VISE were hired for the provision of security services in all the company's facilities. 1,364 guards were assigned for this purpose and 63% of them received Human Rights training from EPM during the induction process. Nevertheless, the coverage of this subject is considered to be 100% because it is a requirement for the contracting process that the security company includes Human Rights training as part of the general training provided to its entire personnel and that the company performs a permanent follow-up in this regard.

With the purpose of monitoring the operations in its areas of influence, the company has implemented mechanisms to address complaints and claims in relation to the Human Rights. The management of the security contractors' employees is also monitored through these mechanisms. There were no complaints related to this service over the reported period.

Security personnel training - EPM Group

Program	Company	Participants	Hours of training
Human Rights management - Las Américas security company.	Emvarias	75	150
Basic security course, Human Rights module (given by a security company).	CHEC	96	288
Human Rights training for security personnel.	EDEQ	50	500

Source: Vice-Presidency of Energy Transmission & Distribution

Related indicators

G4-HR7: Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to their activities.

G4-HR10: Percentage of new service providers that were screened using human rights criteria.

G4-HR11: Significant actual and potential negative human rights impacts in the supply chain and actions taken.

G4-HR12: Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms.

G4-SO11: Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.

G4-EU22: Number of physically or economically displaced people and the compensation granted, detailed by type of project.

Aspect: Diversification of Renewable Energies

Renewable energies are alternative solutions to the traditional power generation and they will be the foundation for the economic and social development. The use of renewable energies has increased due to the depletion of the natural resources, encouraging their promotion and incorporation within the diverse productive processes. In this sense, it is of common interest for the EPM Business Group and its stakeholders to ensure the full and timely power supply, maintain the competitiveness and protection of the environment, and to watch over the efficient use of power and the conservation of the renewable natural resources.

Importance

The access to renewable energy sources different to the hydrological creates a high economic value for the EPM Business Group and its stakeholders because they prevent the increase of the costs of the power service due caused by a low competitiveness level, the coverage of the populations without service is improved, and the risk of depending exclusively on one resource (water) is minimized. Additionally, a high environmental value is generated because it contributes to the reduction of greenhouse gas emissions, and its social value is also high due to the fact that it becomes a matter of public interest, which is fundamental to ensure the energy supply, the competitiveness and the efficient use of power.

Stakeholder's Vision

To increase the use or start using new sources of renewable and clean energy apart from the hydrological.

Main Achievements

Goals for 2015	2015 achievements	Compliance
Geothermics: Execution of the contract signed by Ustda, Dewhurst and EPM with the following progress: LiDAR analysis, geo-scientific model adjustment, and recommendation of the exploratory drilling points.	The contracts were amended because some geographic materials could not be produced, partly, due to climate conditions. Additionally, EPM decided not to make the gradient wells. The connection study was concluded but it will not be submitted to the Institute of Mining and Energy Resources (abbreviated IRME in Spanish) to avoid sanctions related to the uncertainty of the operation start of this plant due to the current stage of the study.	Total
"Primavera" vehicle: the "Primavera 2" vehicle will be jointly developed with Eafit University with the purpose of participating the World Solar Challenge 2015 in October in Australia.	EPM, in partnership with EAFIT University, participated in the World Solar Challenge 2015 in October, arriving in ninth place among 24 competitors in the category. With this position, EPM places Colombia among the top 10 teams in the world thanks to the optimal design and solar performance of the vehicle used in the race. Additionally, the following aspects are also worth to be highlighted: greater knowledge on small-sized solar panels, batteries, solar concentration and the performance of this equipment under extreme operating conditions and demand. An important contribution was made to local talent training.	Total
Wind power: Economic and financial evaluation of a 20 MW wind project in Guajira by EPM.	Strategic decision to strengthen the social management in Jepírachi to achieve the feasibility of Jepírachi II in both the mid and long term. New wind power project in an advanced phase.	Partial
Wind power: Installation of new wind power stations in potential sites, after consultations with the communities.	Consultations with the communities for the relocation and extension of 3 measuring towers, conducting the corresponding procedures with the community and the environmental authority.	Partial
Solar power: Initiating solar energy studies in the target market.	Pilot projects were executed jointly with the Antioquia Governor's Office Public Utility Management and the United States Cooperation Agency (USAID) in order to acquire knowledge and learn about the assembly and maintenance of solar power generation systems in non-interconnected zones (NIZs). Moreover, the organization assessed the possibility to incorporate a subsidiary company that would offer, through solar power, projects of distributed generation and projects to fulfill the clients' self-generation needs. However, this possibility was suspended for the moment mainly due to the regulatory uncertainty in this field.	Partial

Challenges

Challenges 2015	Coverage	Year of completion	Compliance indicator
Developing projects and pilots that allow learning about the assembly of solar parks in interconnected and non-interconnected urban and rural areas, and configuring a comprehensive system that comprises different technologies.	EPM	2017	EPM-13
Geothermics: polishing the conceptual geo-scientific model and make progress in the procedures to conduct supplementary studies with regard to the environmental impact study for the drilling stages.	CHEC	2016	EPM-13

Related Indicators

EPM-13 Initiatives of diversification of renewable energies.

Action: Biogas

Biogas is a gas that can be produced from the decomposition of organic matter or waste in conditions of oxygen absence. Thus, it is common that wastewater treatment plants (WWTP) and landfills produce biogas. The amount depends on the type of material and the conditions of the process. Also, the concentration of the different gases that form it can vary depending on the origin of the waste.

EPM has identified biogas as an energy product of interest. In this regard, several preliminary analyses have been performed to define the best use of the biogas produced by the waste disposed in the La Pradera landfill, which is located in Antioquia's North subregion. Power generation, heat generation, and its purification to inject it into the natural gas network are some of the potential alternatives for this energy product as a new business line.

Management in 2015

In 2015, the project to harness and burn biogas was suspended in the La Pradera landfill due to the drop of the international prices of the carbon credits (certified emission reductions – CERs, under the CDM). These CERs were in charge of funding the investment and operation of the system in La Pradera.

The EPM Business Group started a process of analysis to assess how to restart, in the first instance, the operation of the harnessing and burning system in a sustainable way in La Pradera. The assessment of the feasibility of using biogas will be continued, whether it is for the generation of electrical power or heat, or to improve it to take it to the natural gas network.

With regard to the management related to power generation and the use of biogas in the San Fernando wastewater treatment plant (WWTP), it was observed that more biogas was produced in 2014 than in 2015; therefore, more electrical power was produced. The slight decrease in biogas production in 2015 was due to a low tributary discharge, which was caused by a lower sewage flow and less muds.

Additionally, there was a smaller total demand of electrical power in the San Fernando WWTP and also a smaller purchase of electrical power.

Biogas produced (m3)		
Month	2014	2015
January	472,210	382,479
February	481,940	418,742
March	461,032	415,541
April	400,703	358,029
May	497,734	407,603
June	485,910	411,712
July	481,452	430,032
August	470,957	425,745
September	433,102	399,754
October	441,394	480,881
November	422,319	460,608
December	385,764	501,894
Total	5,434,517	5,093,020

Source: Vice Presidency of Water and Sanitation

Data supplied by the San Fernando WWTP on the production of biogas from 2014 to 2015.

Related Indicators

EPM-13: Renewable energy diversification initiatives

Action: Wind Power

EPM plays an important role in the Colombian electric power outlook, which is why it has taken on business challenges through the research and the study of different alternative energies. This is the case of the Jepírachi Wind Farm, which harness the wind to generate electric power. It is located in the department of La Guajira, North of Colombia, it has a capacity of 19.5 megawatts, and it is part of a research program led by EPM for the future development of this technology in the country.

This project has generated a broad knowledge and experience in the wind power field and, consistently with the growth of the environmentally clean and reliable energy, in 2013 EPM also acquired Los Cururos, a wind farm located in the North of Chile. Los Cururos is aligned with the objectives of the Chilean national energy policy because it tends to ensure the supply, diversify the energy sources, reduce the dependence on fossil fuels, and produce decentralized power without producing greenhouse gases.

Management in 2015

The social management in the Jepírachi Wind Farm was strengthened with the purpose of achieving the feasibility of Jepírachi II in both the mid and long term. Additionally, consultations were carried out with the communities for the relocation and extension of three measuring towers.

In order to achieve the feasibility of Jepírachi II in both the mid and long term, the company made the strategic decision to strengthen the social management in the Jepírachi Wind Farm. Three additional projects are being studied. One of them, which has a social favorability of 95%, is in an advanced stage and progress has been made in its legal-environmental procedures. Moreover, in order to comply with the new guidelines of the National Operation Council (abbreviated CNO in Spanish), the corresponding procedures with the community and the environmental authority were made for the installation and modification of three measuring towers.

The Jepírachi Wind Farm produced 59.02 GW/h of electric power in 2015, and it continues operating as a clean development mechanism (CDM) registered with the United Nations. For its part, the Los Cururos Wind Farm produced 260.42 GW/h of electric power, which is directly injected into Chile's Central Interconnected System. The farm's availability was 99.2% in 2015, which is a greater percentage than the one projected. And another achievement worth to be highlighted is the acquirement of the emissions reduction registry with the Carbon Market under the Gold Standard, with estimated average annual emission-reduction commitments of 173,819 tons of CO₂/year.

Related indicators

EPM-13: Renewable energy diversification initiatives

Action: Geothermal Energy

As a lead player in the Colombian electric power outlook, EPM has taken on business challenges through the research and the study of different alternative energies. Geothermal energy, which is produced in the earth and is concentrated near the volcanoes, is one of the renewable energies that EPM has also explored jointly with the subsidiary CHEC.

Therefore, studies have been conducted to build the first geothermal power plant in Colombia with a generation capacity estimated in 50,000 KW. This station would be connected to the National Interconnected System and would become a feasible alternative when facing climate phenomena such as "El Niño". This power plant would be located in an area of the Ruiz snowcapped volcano known as Nereidas, in the department of Caldas, mid-west Colombian region.

Management in 2015

The company keeps working on the feasibility study of the project within the framework of the comprehensive business collaboration contract signed by EPM and CHEC, with the contract funded by the United States Trade and Development Agency (USTDA) and EPM.

In 2015, informative activities were carried out with the stakeholders in order to strengthen the processes of information, education, negotiation and awareness-raising in relation to topics inherent to the geothermal project.

Also in 2015, diverse activities were articulated in different work fronts. The following are the most significant achievements:

Continuation of the technical, economic, social and environmental feasibility studies, allowing the selection of the future drilling spots and the concept design of the corresponding infrastructure.

Development of communicational and informative activities regarding the status of the project with several stakeholders (communities, owners, municipality of Villamaría, department of Caldas and the Regional Autonomous Corporation of Caldas - Corpocaldas), which allowed to position the project within the local framework.

However, there were some difficulties: lack of legal and regulatory clarity related to the access to the geothermal resource, the way to assign it to third party operators and the corresponding regulation, from both the environmental and energy-related point of view; issues with the management of an expert assistance that helps to validate the concept models proposed, with the opinion of a third party with experience in the field of geothermal project development, especially in these early stages.

Related Indicators

EPM-13: Renewable energy diversification initiatives.

Action: Solar Energy

EPM is an important player in the Colombian energy sector, which is why it wants to boost the research and study of different alternative energies. For this reason and because clients, from both the private and the public sector, have started to show interest in this technology, the EPM Business Group wants to venture into the solar energy field.

Management in 2015

In 2015, EPM executed pilot projects jointly with the Antioquia Governor's Office Public Utility Management and the United States International Development Agency (USAID) in order to acquire knowledge and develop skills. Likewise, it assessed the creation of a subsidiary company that would address, by means of solar energy, the demand of both distributed generation projects and clients interested in self-generation. The development of the project will be pending until the regulatory uncertainty in Colombia is resolved.

Pilot projects were executed jointly with the Antioquia Governor's Office Public Utility Management and the United States International Development (USAID) in order to acquire knowledge and develop skills related to the assembly and maintenance of solar power generation systems in non-interconnected zones (NIZs). These projects consisted in the installation of 9 kWp for providing power to five buildings of the indigenous capital of the TULE Community, Caimán Medio, in Necoclí (Antioquia's Urabá region), which includes the installation of LED lighting for the buildings. Also, several civil works were made for an

off-grid solar system (15 kWp) for the sewer system (EPM-Antioquia Governor's Office) and for a solar system that supplies power to the aqueduct plant in Vigía del Fuerte (30 kWp).

Conversely, the organization analyzed the possibility to incorporate a subsidiary company that would develop, through solar power, projects of distributed generation and projects to fulfill the clients' self-generation needs. However, it was found that, in Colombia, there are no short-term plans for the construction of large-scale solar projects because there is a regulatory uncertainty due to the lack of regimentation of Act 1715 (Renewable Energy Act).

For the Chilean market, the company expects to conduct future studies aimed at supplementing the energy offer with solar power.

Related Indicators

EPM-13: Renewable energy diversification initiatives

Aspect: Climate Strategy

EPM has a climate change strategy that consists in a set of objectives, goals, statements, guidelines, as well as the action plan and the monitoring plan that will be carried out to achieve a comprehensive management on topics related to the climate change and variability.

Vulnerability, adaptation and mitigation are its three "strategic lines," along with the following support components: funding, technology, innovation and communication.

The higher frequency and intensity of natural disasters and climate change represent new worldwide challenges associated with population growth, urbanization increase, food shortage and demand, increase in the costs of fuels and power, health and well-being of the population, among other.

Stakeholder's Vision

To ensure means of livelihood, adaptation and sustainable measures to overcome the defiance of the climate vulnerability and change is the ultimate challenge for the state and the public institutions. Thus, the stakeholders take an interest in knowing what is the company's strategy; how is it getting prepared to address the consequences of climate change in the regions where it operates; what guidelines has it considered for acting in natural disaster cases, high temperatures, rainfall shortage or abundant rains and flooding; as well as in the consequences of all these factors over the communities and regions.

Importance

Aware of its interdependence with the environment, the EPM Business Group recognizes the importance of articulating its management with a climate-compatible development, considering its environmental policy and plans, as well as its main purpose: sustainability.

Therefore, it is important to know how climate variability and change are affecting the ecosystems in the territories where the company operates and the availability of the natural resources it uses with the purpose of designing service provision strategies, restructuring its products, making the most of its competitive advantages, and establishing risk management schemes that enable both the company itself and its related actors and environments to adapt, favoring thus more solid economies.

Main Achievements

Goals for 2015	2015 achievements	Compliance
EPM's emission factor: Maintaining EPM's (as the Group's parent company) emission factor below the emission factor of the national electric power sector in Colombia	The emission factor was maintained under the reference, as follows: National Interconnected System's emission factor: 0.221 Ton CO ₂ / MWh. EPM's emission factor: 0.0567 Ton CO ₂ /MWh.	Total
Emission compensation strategy: To define the emission compensation strategy based on the company's emission reduction projects and on the annual emission inventories.	The proposal and analysis carried out by the firm MGM Innova were submitted to EPM's Executive Committee to assess alternatives. An agreement was reached to update EPM's climate strategy in order to give it a group scope, assess strategies detailed with every emission reduction project, and formulate the adaptation plan. A prospective study was conducted on the topic with an analysis of the impact on the group's areas of interest and operations.	Total
Scope 3 inventory: To draw up EPM's inventories for 2013 and 2014 and to structure the management proposal for the scope 3 carbon footprint	Based on the methodology used for the calculation of 2012 scope 3 emissions, the inventory for 2013 and 2014 was drawn up in 2015.	Total
Adaptation: i) To start the analysis to determine the company's climate event risks. ii) To start the second phase of the study "characterization of the hydrological resource response through the generation of future series of precipitation, discharge and temperature for the 2014-2100 time span" with applications in every EPM business lines on the results from the modelling stage	i) The analysis of historical risks occurred in the company's diverse processes and business lines in relation to climate change was started. Progress was made in the identification of the assessment methodology. ii) The specific needs of the company's diverse business lines were identified and initial meetings were held with Universidad Nacional (Medellín Campus) with the purpose of defining the study scopes.	Partial
REDD+ Project: i) To continue performing the social and environmental management activities that were considered in the project, such as: forestry promotion, construction of efficient stoves, wood gardens, development of productive projects and environmental education. ii) To adjust and update the project design document.	i) Delivery of forestry seedlings; research on promising species; organization of environmental education events; definition of inter-institutional covenants for the promotion of productive projects; territorial development; studies on biodiversity. ii) Preparation of the monitoring plan and subsequent submission to the CCB.	Total

Challenges

Goals for 2015	Coverage	Year of completion	Compliance indicator
To maintain the emission factor below the emission factor of the national electric power sector.	EPM	2016	Lower emission factor than the emission factor of the national electric power sector.
To define the group-scope climate strategy based on EPM's current strategy.	Grupo EPM	2016	Defined strategy.
To define the reference terms and start the second phase of the study "characterization of the hydrological resource response through the generation of future series of precipitation, discharge and temperature for the 2014-2100 time span".	EPM	2016	Start of second phase of the study
REDD+: To continue performing activities on socio-environmental management, research on promising forestry species, forestry promotion, the construction of efficient stoves and wood gardens, productive projects and environmental education.	EPM	2016	Fulfilling the schedule of annual activities described in the project design document.
To conduct the analysis of opportunities for the emission reduction projects registered with different standards, considering current trends for this type of projects.	EPM	2016	Scenario analysis of the diverse projects.
To hold training sessions on the inventory of emissions with all the connections related to this topic within the Group in order to standardize the calculation methodology.	EPM	2016	Training activities and standardized calculation criteria.
To broaden the actions of adaptation to the climate change in other areas of influence of CHEC, which have not been intervened, by signing covenants with other institutions.	CHEC	2016	Covenant signed.

Goals for 2015	Coverage	Year of completion	Compliance indicator
<ul style="list-style-type: none"> Calculation of the carbon footprint of two premises of the corporation. Calculation of the emission of CO₂ tons due to losses in the distribution network. Measurement of gas emissions of a representative sample of the vehicle fleet. 	Eegsa	2016	<ul style="list-style-type: none"> CO₂ equivalent tons per year by plant. CO₂ tons emitted per year due to losses in the distribution network. Amount of emissions generated by the fleet
<ul style="list-style-type: none"> To update the emissions inventory to include 2015. To be zero-carbon by 2022. To establish the forestry compensation program by planting at least 800 trees per year. 	EDEQ	2016	<ul style="list-style-type: none"> 2015 emissions inventory. Purchase of reduction certificates. 800 trees planted per year.
<ul style="list-style-type: none"> To replace 5 cells at the Pamplona Substation by means of technological changes related to the SF6 control. 1100% of the preventive maintenance work to CENS' fleet as part of the emission control program. 	CENS	2016	<ul style="list-style-type: none"> No. of devices replaced/year - % of maintenance jobs performed. No. of technical-mechanic inspections performed.
To start the 2016-2020 climate change analysis study and, by doing so, set out concrete adaptation actions adjusted to the climate conditions of the departments in which the company operates.	Eegsa	2016	Results of the climate analysis
Results of the emissions inventory of the project that implemented vehicle that run on biodiesel and ethanol into the company's fleet.	Eegsa	2016	Emissions inventory of the vehicles operated with biodiesel and ethanol.
To conduct natural risk analysis studies that include the risks and vulnerability related to climate change in all of the other Delsur's substations (2016).	Delsur	2016	Results of the studies.

Related Indicators

G4-EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change.

G4-EN16 Indirect greenhouse gas emissions (Scope 2).

Electricity sector: Report CO₂e per MWh, itemized by regulatory system for the estimated net delivered to end users, including acquired energy emissions.

G4-EN17 Other indirect greenhouse gas emissions (Scope 3).

G4-EN18 Greenhouse gas emissions intensity.

G4-EN19 Reduction of greenhouse gas emissions.

G4-EN20 Emissions of ozone-depleting substances in weight.

G4-EN21 NOx, SOx, and other significant air emissions by type and weight.

Electricity sector: Report emissions by MWh for: i) net emission of all the generation capacity and ii) net generation of all the combustion plants.

G4-EN30 Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce.

Action: Strategy Management

Climate change, along with the environmental issues, generates important challenges for the humanity and for the global economy. It is considered as part of the main factors that define the trend towards the sustainability and it becomes a key field of study and comprehensive analysis in environmental, social, political, economic, technological, regulatory and cultural matters for defining business positions.

Fixing strategies based on the aforementioned perspectives enables the companies to face the challenge that represents a climate-compatible business development and growth.

Management in 2015

In 2015, EPM permanently monitored the climate and hydrological conditions by following the reports from the main climate agencies in the world, which initially forecast a weak and short El Niño event in the beginning, but soon after started observing a development towards a strong and long condition. The severity of the most recent El Niño required joint work of EPM and the country to deal with the challenges that it represents for the generation and distribution of electric power and for the supply of drinking water in the best possible way

On another front, the registration of the Los Cururos Wind Farm with the carbon market under the Gold Standard was completed, with estimated average annual emission-reduction commitments of 173,819 tons of CO₂/year

In 2015, EPM continued the actions related to the climate strategy in terms of mitigation and adaptation.

The company also managed the emission reduction projects that are registered with different standards and maintained its emission indicator under the emission factor of the national interconnected system.

EPM also maintained the neutral carbon practice in its Christmas lighting installations in 2015.

Progress was made in the analysis of historical risks occurred in the operation of the company's processes and business that are associated with the climate change, and the 2016 action plan was defined with the purpose of drawing up the prioritized risk map.

EPM also participated in regional and nationwide sector and guild meeting events to get involved in climate change management trends and initiatives, among which the following stand out: the group for the pilot exercise of climate vulnerability analysis in projects led by the Ministry of Environment, Municipality of Medellin's climate change work group, and the regional climate change hub of Antioquia.

As a consequence of the importance and implications that this matter has for business development, EPM hired external contractors to revise the climate strategy and update it by giving it a Group scope, seeking thus to standardize criteria, establish synergies and optimize actions. For doing so, the company considered the detailed analysis of the main impacts according to the geographic, cultural, productive and developmental conditions of each region, as well as the key progress made by each one of the Group's companies and business lines.

Additionally, the company also conducted an analysis of "Climate Trends and Policies: Prospective, Challenges and Opportunities for the EPM Business Group" jointly with the firm MGM Innova. This analysis highlights the main opportunities and threats this matter carries for the company's target countries, and it will be part of the supplies for updating the strategy.

In the occurrence of the 2015 El Niño climate event, which reached the "Strong" category in the first quarter of 2016 and directly affected Colombia's climate with critical reductions in the amount and frequency of the rainfall, EPM's executives led diverse activities that allowed the permanent supply and distribution of information among the stakeholders and motivated the implementation of joint actions to deal with the circumstances.

EPM's emission factor / National Interconnected System's emission factor

Emission factor	Tons of CO ₂ / MWh 2013	Tons of CO ₂ /MWh 2014	Tons of CO ₂ /MWh 2015
EPM's emission factor	0.0206	0.0246	0.0567
National Interconnected System's emission factor	0.1920	0.2000	0.2210

Source: EPM

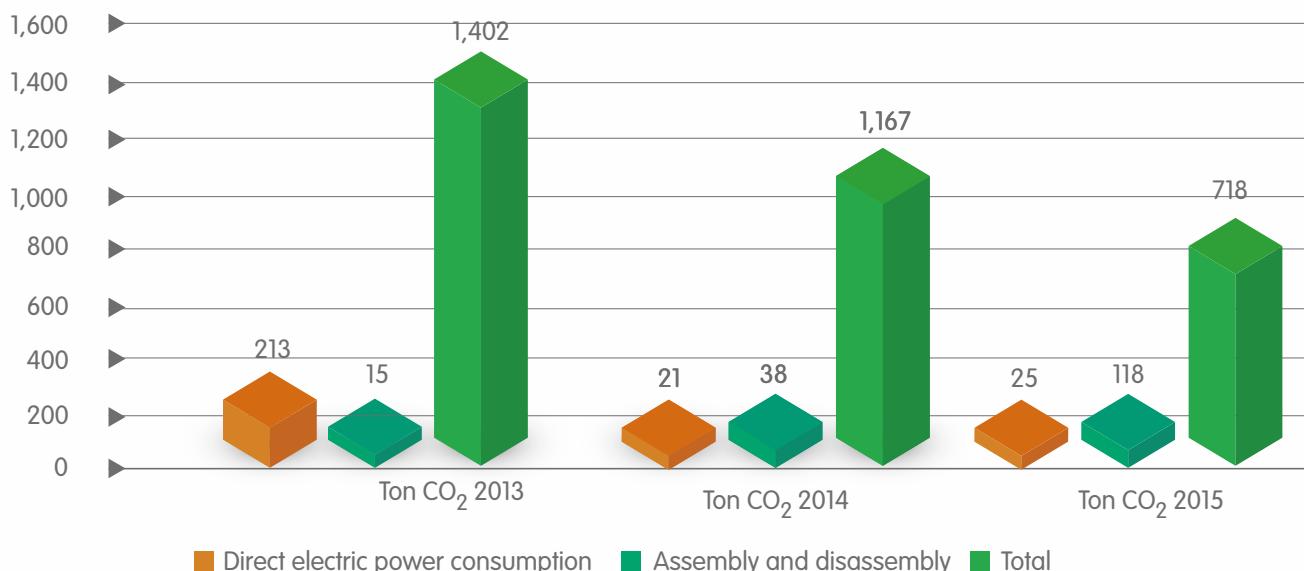
EPM's power-generation emission factor for 2015 (0.0567 tons of CO₂/MWh) is below the emission factor of the National Interconnected System (0.221 tons of CO₂ /MWh), fulfilling thus the commitment that was established in EPM's Climate Change Statement since 2012. The emission factor of the Colombian electric system went from 0.200 tons of CO₂/MWh in 2014 to 0.221 tons of CO₂/MWh in 2015. This represents a slight increase that is reflected in the rise of the emissions due to EPM's electric power consumption (scope 2) despite maintaining the same electric power consumption.

Emission reduction projects			
Projects / Standard	Credit period	Tons of CO ₂ eq. verified in 2014	Tons of CO ₂ eq. estimated for 2015
Jepirachí/ UNFCCC	2012 - 2018	29,956	30,366
Vuelta and Herradura / UNFCCC	2010 - 2017	87,409	66,998
Ituango / VCS	2018 - 2027	-	4,383
REDD+/ CCB	2014 - 2023	-	5,631
Cururos/ Gold Standard	2014 - 2020	197,424	198,650
Total		314,789	306,028

Source: EPM.

The emissions reported for 2015 correspond to the estimated calculations in accordance with the operation of the projects and the emission factors, while the ones reported for 2014 correspond to the amounts verified that year. Since 2004, EPM has been developing emission reduction projects based on diverse international standards and, as of the date, the commitments are still in force by commercializing Jepirachi up to 2017. Nevertheless, the company is working on the analysis of other internal and external compensation alternatives with all the other projects.

EPM's Christmas Lighting



The total emissions associated with the 2015 Christmas lighting were 724 tons of CO₂ eq., while in 2014 the company reported 1,067 tons of CO₂ eq. The difference is basically explained by the decrease in the number of visitors due to the change of location.

In order to achieve the carbon neutrality of the event, the reforestation of 119.24 hectares of patula pine plantations located in the surroundings of the Guatapé and Riogrande II reservoirs, which have a stock of 3,003 tons of CO₂ eq., will be used. After this compensation, there will be 2,279 tons of CO₂ eq. available for the compensation of the next Christmas lighting events.

Related Indicators

G4-EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change.

Action: Climate Change Mitigation

Set of actions, initiatives, projects and programs developed by the company with the purpose of avoiding and reducing the emission of greenhouse gases.

Management in 2015

The following are several actions carried out in 2015 that stand out due to its contribution to the reduction of GHG: structuring of the solar power offer as contribution to the diversification of the country's energy portfolio with technology that does not generate direct polluting emissions; structuring of the energy efficiency business through EPM's power transmission and distribution business; implementation of LED technology in the lighting of several projects of urban importance in Medellín; installation of solar panels in several sectors of the city; and the individual calculation of the carbon footprint of CHEC, EDEQ, ENSA, EGSSA and CURUROS as an essential foundation for the strategic decision-making process of each one of the companies in relation to the climate issue.

Greenhouse gas emission management.

Emission reduction initiatives carried out by the companies in the diverse business lines.

In EPM

- In 2015, the energy efficiency program was continued in EPM's water business, which covers both the supply of water and the management of wastewater. Investments totaling COP 1.57 billion were made to replace the standard engines

for high-efficiency engines in the Palenque pumping station and progress was made in the implementation of the on-line monitoring. An aspect that is worth to be highlighted is the saving of 3.56 GWh of power, which are equivalent to 437.51 tCO₂e, and a decrease of COP 1.36 billion in operating costs

- 1,249,477 m³ of biogas were used for generating 8.07 GWh of power, which corresponds to 75% of the consumption of the San Fernando wastewater treatment plant.
- The hydraulic energy of the aqueduct catchment and distribution system was optimized for generating 105.2 GW in the mini and macro stations.
- The installation of the EPM Group shared network with Aguas de Occidente was completed with the purpose of facilitating the efficient connection with the Group's companies and avoiding displacement-related emissions.
- Regarding EPM Natural Gas, the external dissemination efforts were continued to communicate the benefits of natural gas for vehicles as a clean fuel.
- Regarding EPM Energy Distribution, service work was continued in the maintenance to isolated devices in SF6 and the contracting process for their final disposal in the first term of 2016.
- Following the "GHG Protocol: Corporate Accounting and Reporting Standard (Revised Edition)," based on the emissions generated at the fixed sources, EPM updated both its own and the Group's inventories. The details of the results are presented in the following charts.

In the subsidiary companies:

Eegsa started the identification of the greenhouse gas emission sources by calculating the carbon footprint for the headquarters (with 2014 as the basis), concluding that the annual result was 329.48 tCO₂e. Progress was made jointly with the Institute of Renewable Energies from the Guatemalan Galileo University to start the quantification of the emissions of the vehicle fleet of Eegsa, Trelec and Enérgica. Also, a monthly calculation was carried out to monitor the electric power losses in the distribution network, which allow estimating the emissions generated by the network activity based on the conversion factor estimated by the Green Development firm with data provided by the Ministry of Energy and Mines (0.32 tons/Mwh). The company placed the call for bids PEG-3-2013 as part of its clean energy and power purchase management projected to 2017, with which it expects to be supplied with: 47% in hydraulic energy, 4% in biomass, 6% in wind and 8% in solar, with the purpose of contributing to the transformation of the company's energy matrix.

ENSA prepared and disclosed its carbon footprint measurement report (scopes 1 and 2), which was audited by a third party. It also conducted measurements of mobile sources in the vehicle fleet and performed preventive maintenance work.

ESSA, within its SF₆ gas recovery program in the maintenance of substations, achieved the regeneration of 135 kg of SF₆ gas in 2015.

CENS made technological modifications in the cells of the power substations to prevent the emission of SF₆ due to possible leaks. 9 vacuum-SF₆ cells were replaced: one (1) in Palermo, one (1) in Tibú and seven (7) in Ocaña; and SF₆ emissions to the atmosphere were reduced to 50% in relation to the past year

(6.ilos of SF₆, equivalent to approximately 145.79 tCO₂eq./tSF₆, which did not produce atmospheric pollution).

EDEQ drew up its 2014 emissions inventory (scopes 1, 2 and 3) and expects to update it to 2015 and define the reduction goals, as applicable. Its goal is to be carbon-neutral by 2022, which is why it acquired reduction certificate for 1,920 tCO₂eq. from Quindío's Coffee Growers Committee.

CHEC, Likewise, updated its 2014 and 2015 inventory with the purpose of analyzing the differences with respect to 2013, and identifying possible management and improvement practices.

The Los Cururos Wind Farm, cdrew up its inventory for 2014 and 2015 based on EPM's calculation methodology, presenting results of a daily emission of 0.895 tons of CO₂ eq. for 2014 and 0.904 tons of CO₂ eq. for 2015.

Inventory of EPM Group's emissions (scope 1 and 2)

Scope	Tons of CO ₂ e 2014	Tons of CO ₂ e 2015
Scope 1	349,169.87	665,972
Scope 2	210,451.79	265,592
Total	559,621.66	931,564

Source: EPM.

* (Includes subsidiary companies from the energy sector: ESSA, CHEC, CENS and EDEQ; and from the water sector: Oriente, Urabá, Atrato, Occidente, Malambo and EPM).

For the Group, there is the 2012 emissions inventory base line, which, just as in EPM, was drawn up following the "GHG Protocol: Corporate Accounting and Reporting Standard (Revised Edition)."

The differences in relation to 2014 are mainly due to the increase of EPM's emissions from the use of fossil fuels for the generation of thermal energy.

Inventory of EPM's emissions (scope 1 and 2)

Scope	Tons of CO ₂ e 2013	Tons of CO ₂ e 2014	Tons of CO ₂ e 2015
Scope 1	178,109	217,388	601,133
Scope 2	108,238	117,083	153,100
Total emissions	286,347	334,471	754,233

Scope: EPM.

In EPM, the inventory of GHG emissions has been made since 2008 following the "GHG Protocol: Corporate Accounting and Reporting Standard (Revised Edition)," based on the emissions generated at the fixed, fugitive and mobile sources that, in this period, comprise 270 motorcycles, 257 automobiles and pick-up trucks, and 95 trucks and buses, which are used for the transportation of the company's personnel, supplies and materials.

The emissions for 2015 totaled 754,233 tCO₂e, while for 2014 they were 334,471 tCO₂e. The variation is mainly explained due to the slight increase of the national emission factor and to the increase in emissions due to the high generation of power with fossil fuels in the La Sierra thermal power station, increasing by 381,043 tCO₂e with respect to 2014.

The total amount of EPM's emissions for 2014 was corrected due to a revision to the calculation of fugitive emissions of methane and nitrous oxide in the purification of wastewater in the San Fernando and El Retiro treatment plants, which affected mainly the total amount of the fugitive emissions in said period of time. Therefore, EPM's total emissions for 2014 went from 331,174 tCO₂e to 334,471 tCO₂e.

EPM's scope 3 emissions

Category	2012	2013	2014
Properties and services	16,118	16,118	16,118
Capital assets	525	525	525
Fuel-related activities	42,330	21,432	19,232
Waste resulting from operations	3,583	5,899	34,090
Corporate trips	4,790	8,766	3,439
Personnel transportation	3,049	1,568	1,568
End use of products sold	1,980,215	2,660,958	2,675,748
Total emissions	2,050,010	2,695,671	2,734,076

Source: EPM.

The calculations for 2013 and 2014 were performed in 2015 based on the calculation made in 2014 using 2012 as basis and following the GHG Protocol and the Corporate value chain (Scope 3) accounting and reporting standard" published by the WRI and the WBCSD. The results of these calculations allow concluding that the larger emissions are associated with the final use of the products sold. Therefore, the main management recommendations in this category within the company's climate strategy are aimed at understanding its value chain and at the management of risks and opportunities related to its emissions. The increase in the amount of emissions produced by the waste in operations was due to the report of a considerable volume of waste from the felling and pruning activities in said period of time (33,323.82 kg).

Net balance of EPM's emissions in 2015

Emissions / Reductions	Tons CO ₂ e 2015
Scope 1	601,133
Scope 2	153,100
Total emissions	754,233
Emission reduction (only includes the emissions verified in 2014 from La Vuelta and La Herradura. Only project in operation and without commercialization commitment).	87,409
Balance	666,824

Source: EPM.

Based on EPM's inventory of emissions scope 1 and 2 for 2015 and on the reduction of emissions validated as of the dates of EPM's currently operating projects, it can be observed that we are producing more emissions than the ones we are capable of reducing. Thus, based on the available emissions from La Vuelta and La Herradura and on the registered projects that start operating, it is expected to begin an analysis of scenarios that allow establishing the company's own different compensation measures.

EPM Group's other emissions				
Year	2014 ⁽¹⁾		2015 ⁽²⁾	
SOx and NOx emissions (tons/year)	Nox	Sox	Nox	Sox
La Sierra thermoelectric station (isokinetic sampling)	313.45	-	24.04	-
Transportation of personnel, supplies and products in EPM's own vehicles	22.92	0.16	43.37	0.34
Total	336	0	67	0

Source: EPM.

(1) Includes EPM, CHEC, Aguas de Urabá and Emvarias.

(2) Includes EPM, CHEC, ESSA, Aguas de Urabá, Aguas de Malambo, Aguas del Oriente, Emvarias and Del Sur.

The main sources of these polluting agents are associated with the use of the fossil fuels necessary for the generation of thermal energy in EPM and the operation of the vehicles, machinery and equipment of the Group's companies.

The amounts reported in the period vary in relation to 2015 mainly due to a variation in the number of vehicles, the variation of the emission factor used for the previous years, the calculation of distances traveled, and to the regrouping of the category of stationary consumption vehicles with the personal transportation category.

EPM Group's other emissions				
Year	Benzene	Particulate material	CO	VOCs
2014 ⁽¹⁾	0.03	0.84	21.62	4.83
2015 ⁽²⁾	0.13	1.05	62.03	8.98
Total	0.16	1.89	83.65	13.81

Source: EPM

(1) Includes EPM, CHEC, Aguas de Urabá and Emvarias.

(2) Includes EPM, CHEC, ESSA, Aguas de Urabá, Aguas de Malambo, Aguas del Oriente, Emvarias and Del Sur.

The emissions of benzene, particulate material smaller than 10 micrometers (MP10), carbon monoxide (CO) and volatile organic compounds (VOC) associated with the fuel consumption in EPM's and its subsidiary companies' own fleets are calculated in tons/year.

The emissions of refrigerant gases associated with the maintenance of air conditioning units in the company facilities are the following: HCFC: R-22: 0.4 tons; HCFC: R-410 A: 0.027 tons (Reported by CENS and DEL SUR).

[1] Emission factor of the International Vehicle Emission Model (IVE), which is funded by the EPA.

EPM's other emissions

Year	2013 ⁽¹⁾	2014 ⁽²⁾	2015 ⁽³⁾
SOx and NOx emissions (tons/year)	Nox	Sox	Nox
La Sierra thermoelectric station (isokinetic sampling)	202.27	0.42	313.45
Transportation of personnel, supplies and products in EPM's own vehicles	31.94	0.27	21.98
Total	234.21	1	335
			0
			38
			0

Source: EPM.

(1) 274 motorcycles, 281 automobiles and pick-up trucks, 103 trucks and buses.

(2) 272 motorcycles, 273 automobiles and pick-up trucks, 106 trucks and buses.

(3) 270 motorcycles, 257 automobiles and pick-up trucks, 95 trucks and buses.

The main sources of these polluting agents are associated with the use of the fossil fuels necessary for the generation of thermal energy and the operation of vehicles, machinery and equipment.

The amounts reported in the period vary in relation to 2015 mainly due to a variation in the number of vehicles, the variation of the emission factor used for the previous years, the calculation of distances traveled, and to the regrouping of the category of stationary consumption vehicles with the personal transportation category.

EPM's other emissions

Year	Benzene	Particulate material	CO	VOCs
2013 ⁽¹⁾	0.19	0.94	149.82	10.08
2014 ⁽²⁾	0.09	0.83	20.63	4.65
2015 ⁽³⁾	0.02	0.44	14.00	3.20
Total	0.30	2.21	184.45	17.93

Source: EPM.

(1) 274 motorcycles, 281 automobiles and pick-up trucks, 103 trucks and buses.

(2) 272 motorcycles, 273 automobiles and pick-up trucks, 106 trucks and buses.

(3) 270 motorcycles, 257 automobiles and pick-up trucks, 95 trucks and buses.

The following emissions are calculated based on factors established by the United States Environmental Protection Agency (EPA) [1], which include the characteristics of the vehicles and the distances traveled: benzene, particulate material smaller than 10 micrometers (MP10), carbon monoxide (CO), volatile organic compounds (VOC) associated with EPM's vehicle fleet, which comprises 270 automobiles and pick-up trucks and 95 buses. These emissions remain in barely significant amounts.

The emissions of refrigerant gases associated with the maintenance of air conditioning units in the company facilities are the following: HCFC: R-22: 0.071 tons; HCFC: R-134 A: 0.016.

[1] Emission factor of the International Vehicle Emission Model (IVE), which is funded by the EPA.

Related Indicators

G4-EN1 Materials used by weight or volume.

Electricity sector: Report the inventory in use of low- and high-level solid and liquid PCBs in the equipment.

G4-EN15 Direct greenhouse gas emissions (Scope 1).

Electricity sector: Report CO₂e per MWh, itemized by regulatory system for:

- Net generation of all the generation capacity.
- Net generation of all the fossil fuel generation.
- Estimated net delivery for all end users. This includes emissions of the organization's own generation.

G4-EN16 Indirect greenhouse gas emissions (Scope 2).

Electricity sector: Report CO₂e per MWh, itemized by regulatory system for the estimated net delivered to end users, including acquired energy emissions.

G4-EN18 Greenhouse gas emissions intensity.

G4-EN20 Emissions of ozone-depleting substances in weight.

G4-EN21 NOx, SOx, and other significant air emissions by type and weight.

Electricity sector: Report emissions by MWh for: i) net emission of all the generation capacity and ii) net generation of all the combustion plants.

G4-EN30 Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce.

Action: Adaptation to Natural Variability and Climate Change

Set of strategies, measures and projects duly identified, assessed and prioritized in time, in accordance with the scale of risk related to climate events, with the purpose of providing actions that contribute to the sustainability of the company, its services and its environment by means of the adaptation to the climate conditions and changes.

Management in 2015

The results of the historical risk analysis on the climate change in relation to the company's operational processes demonstrate the impact that climate change has on the infrastructure and, therefore, on the provision of the water and power services.

All the services are affected to a greater or lesser degree by the occurrence of climate events, but power generation and water catchment are the two processes historically affected the most by drought. Water distribution, treatment and purification have been affected the most by heavy rains, while the power transmission and distribution network operation has been affected by thunderstorms and windstorms.

According to the records of the last 23 years, the 2015-2016 El Niño phenomenon has caused the lowest water levels in EPM's reservoirs.

While the mitigation deals with the causes of climate change, the adaptation is focused on its effects. Thus, after the results of phase I of the study conducted jointly with the Universidad Nacional (which evidenced in the company's own historical information: a statistically significant temperature increase, long-term trend to the increase in the variability of rainfall and, particularly, the increase of extreme events, without generalized changes in the monthly or yearly accumulated rainfall totals), in 2015, EPM made progress in the definition of new terms for the study, with the purpose of obtaining applications of the general modeling for each one of the business lines, which is set to be started in 2016. Moreover, the organization obtained an analysis of the results of the polls conducted within the company with the purpose of identifying the main risks arising in the operation of the business lines that are somehow connected to climate change, the existing control measures and the needs of new prevention and control measures or schemes. The following are some of the main conclusions:

- The climate-related risks must be differentiated and control and governance schemes must be guaranteed in the processes of the company.
- A financial awareness analysis must be conducted in relation to climate events, and an integration and decision-making plan must be defined.
- There was a deviation in the operating budget: from COP 75 million to COP 3 billion (during the 1997-1998 El Niño, the deviation totaled COP 75 billion; while during the 2015-2016 El Niño, the deviation totaled COP 634 billion approximately).

- Most of the historical control measures have been corrective actions. The most effective ones are: changes in technology, infrastructure reinforcements, inter-institutional management, education and awareness-raising actions.
- In the process of planning and design of the power infrastructure, it is necessary to incorporate climate change criteria in order to study the actual correlation between the temperature increase and the electrical power demand projections in the different geographies of the company's electrical system with the purpose of defining stronger and more resilient structures.
- In the planning of the water-catchment operation, it is important to know the history of the basin in terms of sediments and to include change projections with regard to climate events and consider them for the planning of the infrastructure design.

Due to the high vulnerability of the water resources, the company should study technological options with other natural resources to respond to its needs of demand and expansion or growth.

In the face of the 2015 El Niño phenomenon, whose maximum intensity coincided with the first dry season of the beginning of 2016, the organization performed business management actions focused on the minimization of the impacts on the provision of public utility services.

The following actions stand out:

- Availability of long-term energy contracts established with anticipation in order to reduce part of the effects caused by the market increase on the electrical power prices
- Inter-institutional and community management.
- Meetings with the diverse stakeholders.

- Articulation of actions among the Group's companies.
- Internal and external awareness campaigns regarding the efficient use of the water and electrical power services.
- Planned power generation in the La Sierra thermoelectric station with liquid fuel due to the scarce natural gas availability in the country.
- Raw water pumping from other sources distant from the purification plants in order to counterbalance the decrease in the levels of the direct sources and maintain the continuity of the water service.

Further information can be found at:
<http://www.epm.com.co/site/>

As for the EPM Business Group's subsidiary companies:

Faced with the climate events, **Eegsa** decided to conduct studies to project the climate variable alterations and to be able to take adaptation measures because, in 2015, constant and strong rains and winds caused damages in the distribution network, generating repair costs that totaled COP 814 million. A project that consists in the installation of four meteorological stations was proposed and approved to be started in 2016 with the purpose of monitoring climate variables.

ESSA, did maintenance work to the installed plants to guarantee the operation of the photovoltaic generation equipment in 15 rural schools located in the organization's area of influence as part of its photovoltaic generation project.

By means of pacts established with the Chinchiná river Basin Council, **CHEC** participated in the implementation of the WEAP model for the estimation of offer-demand balances in the basin in climate change scenarios. These pacts were established within the framework of the Project for Adaptation and Resilience, which is sponsored by the United States Agency for International Development (USAID). The company signed a covenant with the Municipality of Chinchiná and Ascondesarrollo in order to carry out recovery and conservation actions in the high basins of the Campo Alegra and Chinchiná rivers. Furthermore, it acquired 322 hectares in the Chinchiná river high basin, for totaling 6,415 hectares dedicated to conservation; it signed a covenant with Aguas de Manizales in order to monitor the climate change effects on the Chinchiná river basin in relation to the flora, fauna and water components; and it joined the Banco2 project, which is led by Corporación Autónoma del Oriente (Cornare), to work on achieving the compensation for 14,328.75 Ton of eq. CO₂ of emissions in a period of 24 months in the area of influence of Corpocaldas and CHEC.

Delsur, conducted natural risk analysis studies in 6 substations.

ENSA, defined the procedure for identifying, preventing and addressing environmental emergencies caused by natural phenomena.

Aguas de Urabá, constructed two wells for underground water catchment with the purpose of improving the continuity of the service in dry seasons due to the significant decrease in the hydrological offer of the surface sources. Additionally, the company made progress in the articulation of its contingency plans with the municipal plans, and it participated in the climate change and peace program for the Urabá region, which is led by the Municipality and Antioquia Governor's Office.

Related Indicators

G4-EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change.

Aspect: Unserved Population

Populations without service are those settled down in places with technical or legal limitations for the company to provide the service, such as those located in high-risk areas or outside the perimeters of the land use plans. The solutions often exceed the exclusive scope of the companies providing the service and this makes the involvement of multiple actors required.

Stakeholder's Vision

Given its purpose and capabilities, EPM Group is expected to exercise leadership, calling other actors with skills and capabilities to propose solutions in order to provide the service.

Importance

Because of the high social value for its companies and stakeholders, and because it has a major impact on building sustainable and competitive territories, unserved populations acquire the status of independent subject material.

Given its purpose and capabilities, EPM Group is an actor called to convene other actors to find solutions aimed at the unserved population. Also, this is a defining aspect of poverty, related directly to business, which consequently affects the Group on ethical and reputational terms as well as in non-technical losses. This is also aggravated by environmental conditions as conflicts between neighbors or increased geological risk in the case of water.

Main achievements

Goals for 2015	2015 Goals	Compliance
To connect 3,800 houses to the electric power services	6,272 houses were connected	Total
To connect 2,783 houses to the gas service	2,969 houses were connected	Total
To connect 6,277 houses to the water supply and sanitation services	2,696 houses were connected	Partial

Source: Commercial Vice-President's Office.

The effort by EPM to develop the projects along with the work coordinated with the Municipality of Medellin allowed the connection of 11,937 solutions to homes with no service. This is equivalent to 93% of the target set for 2015 to improve users' quality of life and coverage of public utilities. Initially, work was focused on defining a methodology for identifying the size of the target population in Medellin and Antioquia in energy. Then, solutions and a plan of action were defined for each service in order to cover the population identified through the Dignifying Homes, Prepaid Electricity, Community meters for drinking water and network expansion programs.

The execution of energy was 165%, thanks to the technical and operational effort by EPM to boost electric power connection in remote areas where it is difficult, in municipalities such as Caucasia, Yondó and Nechí, as well as in the metropolitan area, in the municipality of Bello and in neighborhoods of Medellin such as Manrique, Villa Hermosa and San Javier.

Gas service achieved an execution of 106%, due to the management of the municipality of Medellin to enable the area for the Villatina-La Libertad project.

Underexecution in services of water and waste water (43%) provision is mainly due to deadlines that were not accomplished in the connections in Llanaditas as a consequence of the delay in the delivery of networks. This situation is expected to normalize in the first quarter of 2016.

Challenges

Challenges		
Short, medium and long term goals	Year of completion	Compliance indicator
To have 600 solutions to existing homes which do not have electric energy service.	2016	Number of connected solutions / Number of budgeted solutions
To have 2,500 solutions to existing homes which do not have gas service.	2016	Number of connected solutions / Number of budgeted solutions
To have 5,350 solutions to existing homes which do not have water supply service.	2016	Number of connected solutions / Number of budgeted solutions
To have 5,350 solutions to existing homes which do not have sewerage service.	2016	Number of connected solutions / Number of budgeted solutions

Related Indicators

G4-EC8 Significant indirect impacts, including the extent of these impacts.

G4-EU26 Percentage of unserved population in areas with distribution license.

EPM-14 Solutions for unserved homes.

Aspect: Fees and prices

Fees for services provided by the EPM Group are regulated; therefore, continuous management is done with the Government and regulators of different services so that the applied pricing methodologies are always fair and efficient for users. Even in these conditions, competitive rates is a purpose of the EPM Group, so additionally, it works in a business efficiency scheme for its costs and production processes.

In the case of large energy consumers, the EPM group offers rates to be negotiated with customers, including the commercialization margin and the supply value. In this case, the rest of the components are regulated (transport, distribution and others).

Stakeholder's Vision

Customers and users notice asymmetries in the pricing issue when comparing their financial situation against the results the company communicates.

Electrical Energy: is the most expensive service, especially because its relative cost in the bill is always the highest and its increase is constant; every month the cost of activities such as street lighting is included.

Natural gas or pipeline network: the service is inexpensive. The perception of low price is based on the lower value of the invoice.

Water supply: the service is inexpensive, both for its relative price in the bill and for the perceived value.

Sanitation: qualified as "expensive." This perception is based on the fact that there is no real measure of the use or consumption of the service; it is "estimated" based on water consumption.

Importance

Offering competitive rates is a purpose of the EPM Group. It is an aspect of high social and economic sensitivity, both for companies and for customers and users.

Related Indicators

EPM-15 Rates by service type.

Action: Water Supply and Sewerage

By its nature, residential public utilities have regulated prices. This means that the rates EPM charges its users cannot be chosen freely, but they must be subject to the dispositions determined by the Regulator, which in this case is the Drinking Water and Basic Sanitation Regulatory Commission (abbreviated CRA in Spanish). This entity sets rules where the methodologies for calculating rates are established, which are based on efficiency criteria so that only efficient costs and expenses are transferred to the consumer. In all regions where it provides its services, EPM seeks to maintain competitive rates, allowing cost recovery and sustainability of enterprises, so that they can deliver quality services in harmony with the environment, in order to provide the necessary tools for the consolidation of sustainable territories.

In 2015, EPM performed proactive management before the Regulator and the Government so that the rules issued for the next rate period would reflect fair and efficient prices.

Management in 2015

In 2015 the management was focused on the new rate framework for providers with more than 5,000 subscribers, which is located in Resolution CRA 688 of 2014. It was budgeted to be applied in 2015, but due to changes made by the Commission, it will be implemented in July 2016. During this process ideas and comments to be implemented within the regulations were provided, in order to ensure fair and efficient rates.

The implementation of new pricing methodologies involves a long process of interaction between all stakeholders. It took a long way and several years to reach the Resolution CRA 668 of 2014, by which the pricing methodology for cities with more than 5,000 subscribers is established. Usually the process starts from the publication of draft standards of the CRA, which enter a process of citizen participation where companies, government institutions, municipalities, departments, citizens or any other interested parties may make recommendations or criticisms regarding the standard provisions. Subsequently, answers are given to these concerns, to finally issue the regulation that will be applied within the country.

In 2015 the new pricing framework had been budgeted to enter into force. However, due to the lack of clarity in some aspects and the absence of information in others, it was not applied. During this time, meetings with both the union of this sector as well as with the CRA were held in order to clarify necessary aspects. After all the process, which took more than two years, it was established that the new standard would apply since July 2016. In our case, it will apply for EPM, Aguas de Urabá, Aguas de Occidente y Aguas de Malambo. A change of this magnitude had not occurred in this sector since resolution CRA 287 of 2004.

In addition, EPM continuously monitors rates, in order to have them respond to a quality service that is sustainable over time. The variation in rates for drinking water and sewerage in the country is caused by three aspects. The first one, when a 3% in the CPI is accumulated since the last update made; the second one, due to the application of rate methodologies issued by the CRA; and the third one, due to changes in the subsidy and contributions scheme of each municipality. EPM is always on top

of their rates to make sure they are fair, competitive and efficient.

Regular Bill for Medellín corresponding to Water Supply (COP)

Use	2013	2014	2015
Stratum 1	8,809	9,127	9,734
Stratum 2	13,214	13,691	14,602
Stratum 3	19,270	19,966	21,294
Stratum 4	22,023	22,818	24,336
Stratum 5	33,034	34,227	36,504
Stratum 6	35,236	36,509	38,937
Commercial	33,034	34,227	36,504
Industrial	28,629	29,663	31,637
Official / Special	22,023	22,818	24,336

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. To calculate the rate, the following aspects are taken into account: fixed charge plus consumption charge multiplied by 13.01. The latter rate corresponds to the average consumption of EPM users in stratum 4 in the municipalities of the interconnected system in 2015. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service.

Regular bill for Medellin corresponding to Sewerage (COP)

Use	2013	2014	2015
Stratum 1	10,016	10,375	11,067
Stratum 2	15,024	15,562	16,600
Stratum 3	21,910	22,695	24,209
Stratum 4	25,040	25,937	27,667
Stratum 5	37,560	38,906	41,500
Stratum 6	40,064	41,499	44,267
Commercial	37,560	38,906	41,500
Industrial	32,552	33,718	35,967
Official/Special	25,040	25,937	27,667

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. To calculate the rate, the following aspects are taken into account: fixed charge plus consumption charge multiplied by 12.97. The latter rate corresponds to the average consumption of EPM users in stratum 4 in the municipalities of the interconnected system in 2015. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service.

Unit cost - EPM Water Supply - Full rate (stratum 4)

Item	2013	2014	2015
Fixed charge (\$/User)			
Metropolitana	7,753	8,032	8,564
Variable charge (\$/m³)			
Interconectado	1,097	1,136	1,212
Caldas	1,163	1,205	1,286
Barbosa	969	1,004	1,071

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Unit cost - EPM Sewerage - Full rate (stratum 4)

Item	2013	2014	2015
Fixed charge (\$/User)			
Metropolitana	3,544	3,672	3,915
Variable charge (\$/m³)			
Interconectado	1,657	1,717	1,831
Caldas	460	476	503
Barbosa	709	731	775

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Aguas de Occidente

Unit cost - Aguas de Occidente Water Supply - Full rate (stratum 4)

Item	2013	2014	2015
Fixed charge (\$/User)			
Santa Fé de Antioquia	5,257	5,446	5,807
San Jerónimo, Sopetrán, Olaya	3,617	5,421	5,612
Variable charge (\$/m³)			
Olaya	454	598	619
San Jerónimo	1,214	1,593	1,651
Santa Fe de Antioquia	1,353	1,399	1,492
Sopetrán	666	860	892

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations mainly correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service, except for the one presented in 2014 for San Jerónimo, Sopetrán and Olaya, which corresponds to rate calculation. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines

Unit cost - Aguas de Occidente Sewerage - Full rate (stratum 4)

Item	2013	2014	2015
Fixed charge (\$/User)			
Santa Fé de Antioquia	3,109	3,221	3,434
San Jerónimo, Sopetrán, Olaya	1,773	3,206	3,319
Variable charge (\$/m³)			
Olaya	305	225	236
San Jerónimo	852	998	1,045
Santa Fe de Antioquia	874	904	961
Sopetrán	540	488	485

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations mainly correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service, except for the one presented in 2014 for San Jerónimo, Sopetrán and Olaya, which corresponds to rate calculation. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Aguas de Urabá

Unit cost - Aguas de Urabá Water Supply - Full rate (stratum 4)

System	2013	2014	2015
Fixed charge (\$/User)			
Apartadó	6,884	7,132	7,605
Carepa, Belén de Bajirá, El Reposo	4,011	4,133	4,407
Chigorodó	5,841	6,052	6,453
Mutatá	6,345	6,574	7,009
Turbo	7,277	7,539	8,039
Variable charge (\$/m³)			
Apartadó	1,118	1,158	1,235
Belén de Bajirá	1,437	1,480	1,578
Carepa	583	601	641
Chigorodó	1,288	1,331	1,419
El Reposo	1,501	1,547	1,649
Mutatá	1,346	1,395	1,487
Turbo	1,243	1,288	1,373

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Unit cost - Aguas de Urabá Sewerage - Full rate (stratum 4)

System	2013	2014	2015
Fixed charge (\$/User)			
Apartadó	1,079	1,118	1,192
Carepa, Mutatá	1,986	2,046	2,181
Chigorodó	3,629	3,759	4,008
Turbo	1,976	2,046	2,181
Variable charge (\$/m³)			
Apartadó	1,222	1,261	1,361
Carepa	853	879	967
Chigorodó	993	1,026	1,082
Mutatá	593	611	726
Turbo	859	886	925

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Aguas de Malambo

Unit cost - Aguas de Malambo Water Supply - Full rate (stratum 4)

Item	2013	2014	2015
Fixed charge (\$/User)			
Malambo	3,619	3,619	3,854
Variable charge (\$/m³)			
Malambo	1,304	1,305	1,389

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Unit cost - Aguas de Malambo Sewerage - Full rate (stratum 4)

System	2013	2014	2015
Fixed charge (\$/User)			
Malambo	1,745	1,745	1,858
Variable charge (\$/m³)			
Malambo	690	628	667

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Aguas del Oriente

Unit cost - Aguas del Oriente Water Supply - Full rate (stratum 4)

System	2013	2014	2015
Fixed charge (\$/User)			
El Retiro	4,815	4,815	5,127
Variable charge (\$/m³)			
El Retiro	1,425	1,425	1,518

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Unit cost - Aguas del Oriente Sewerage - Full rate (stratum 4)

System	2013	2014	2015
Fixed charge (\$/User)			
El Retiro	2,123	2,123	2,261
Variable charge (\$/m³)			
Los Salados	307	311	327
El Retiro	196	197	205
El Retiro	410	414	436

Source: Commercial Directorate for Water and Sanitation

Rates to December of each year in ordinary prices, where the evolution of the rates charged to users can be appreciated. Variations correspond to the rate indexation regarding the CPI in order to keep the value of money over time, thus allowing cost recovery and providing quality service. These values correspond to the full rate, in other words, without including subsidies or contributions that each municipality determines.

Related Indicators

EPM-15 Fees by type of service.

Action: Sanitation

By its nature, residential public utilities have regulated prices. This means that the rates EPM charges its users cannot be chosen freely, but they must be subject to the dispositions determined by the Regulator, which in this case is the Drinking Water and Basic Sanitation Regulatory Commission (abbreviated CRA in Spanish). This entity sets rules where the methodologies for calculating rates are established, which are based on efficiency criteria so that only efficient costs and expenses are transferred to the consumer. In all regions where it provides its services, EPM seeks to maintain competitive rates, allowing cost recovery and sustainability of enterprises, so that they can deliver quality services in harmony with the environment, in order to provide the necessary tools for the consolidation of sustainable territories.

In 2015, EPM performed proactive management before the Regulator and the Government so that the rules issued for the next rate period would reflect fair and efficient prices.

Management in 2015

In 2015, management focused on the new sanitation pricing framework for cities with more than 5,000 subscribers. Before publication, ideas and comments were provided to the regulator to be implemented within the regulations, in order to ensure fair and efficient rates. After publication, we worked on clarifying some issues that were necessary for its calculation, in order to allow its implementation in 2016, to provide solidity to the service and open up possibilities in terms of environmental sustainability.

The implementation of new pricing methodologies involves a long process of interaction between all stakeholders. It took a long way and several years to reach the Resolution CRA 720, by which the pricing methodology for cities with more than 5,000 subscribers is established. Usually the process starts from the publication of draft standards of the CRA, which enter a process of citizen participation where companies, government institutions, municipalities, departments, citizens or any other interested party may make recommendations or criticisms regarding the standard provisions. Subsequently, answers are given to these concerns, to finally issue the regulation that will be applied within the country.

Since the publication of the standard in July, guild meetings with the CRA were held to clarify aspects that were necessary for its implementation. After all the process that took more than two years, it was established that the new regulation would apply since April 2016. A change of this magnitude had not occurred in the sector since the resolution CRA 351 of 2005.

Similarly, we supported the coordinator and technical group that was updating the Integrated Solid Waste Management Plan for Medellín, in order to clarify the regulatory issues that could have implications in it, since it is a cornerstone for service provision. Additionally, we supported the public participation process for the regulation of use as a complementary activity of public utilities, hoping that a final rule that will help the development of the activity with the quality standards required for a public utility may be published in 2016.

In addition, all companies in the EPM Group perform continuous tracking of rates so that these respond to a quality service that is sustainable over time. The sanitation rate variation in the country occurs due to three causes: the first one, when 3% is accumulated

since the last indexing performed to the rates established for each of the activities; the second one, by the application of pricing methodologies issued by the CRA; and the third one, by changes in the subsidy and contributions scheme of each municipality.

EPM is always alert to keep its rates fair, competitive and efficient.

Rates by user of sanitation ordinary service in Medellín (COP)

Item	2013	2014	2015
Stratum 1	5,828	6,006	6,337
Stratum 2	7,771	8,008	8,451
Stratum 3	11,009	11,344	11,972
Stratum 4	13,357	13,760	14,523
Stratum 5	26,056	26,833	28,324
Stratum 6	35,442	36,448	38,490
Small commercial generators	45,731	46,923	49,592
Variable rate m ³ - Big generators	44,842	46,306	47,537
Free of FSRI			
Small commercial generators	30,487	31,282	33,061
Big industrial generators m ³	34,494	35,620	36,567

Source: Emvarias

Values updated to December of each year in current prices, where the evolution of rates charged to users can be seen. Variations correspond to indexing of rates value, with respect to indexes such as the CPI, the MMW, the fuel oil and diesel oil ACPM (ICFO), and levelling works index (LWI), in order to maintain the value of money over time, thus allowing cost recovery and providing quality service.

Related Indicators

EPM-15 Rates by service type.

Action: Electricity

By its nature, residential public utilities have regulated prices. This means that the rates EPM charges its users cannot be chosen freely, but they must be subject to the dispositions determined by the Regulator, which in this case is the Energy and Gas Regulatory Commission (abbreviated CREG in Spanish). This entity sets rules where the methodologies for calculating rates are established; they are based on efficiency criteria so that only efficient costs and expenses are transferred to the consumer. In all regions where it provides its services, EPM seeks to maintain competitive rates, allowing cost recovery and sustainability of enterprises. In 2015, EPM performed proactive management before the Regulator and the Government so that the rules issued for the next rate period would reflect fair and efficient prices.

This year the Group companies experienced rate increases above the CPI nationwide (Colombia); however, thanks to the internal management and especially the coverage management through power purchase, its rates are among the lowest nationwide.

Management in 2015

Before the issuance of regulatory proposals for the remuneration of power transmission and distribution in Colombia for the next pricing period, the EPM Group introduced directly and through the guilds in the sector, observations and counterproposals focused on achieving fair and efficient prices for users. Additionally, approval for the charge of commercialization of EPM and its four subsidiaries of energy in Colombia was requested, according to the update of the methodology that allows transferring efficient costs to end users. These values will be reflected on the bill since 2016.

Evolution of energy rates in Colombian subsidiaries (COP / kWh)

Rates of the regulated market at voltage level 1 (low voltage)

Sector	2013	2014	2015
Residential	Stratum 1	153	167
	Stratum 2	191	209
	Stratum 3	309	327
	Stratum 4	364	385
	Stratum 5	437	462
	Stratum 6	437	462
Commercial		437	462
Industrial			523

Source: Vice-Presidency of Power Transmission and Distribution, Commercial Management

Evolution of energy rates - Central Hidroeléctrica de Caldas - CHEC (COP/kWh)

Sector	2013	2014	2015
Residential	Stratum 1	210	216
	Stratum 2	255	257
	Stratum 3	339	347
	Stratum 4	374	384
	Stratum 5	442	452
	Stratum 6	436	447
Commercial		444	455
Industrial		401	547

Source: Vice-Presidency of Power Transmission and Distribution, Commercial Management

Evolution of energy rates - Empresa de Energía del Quindío - EDEQ (COP/kWh)

Sector	2013	2014	2015
Residential	Stratum 1	177	177
	Stratum 2	212	213
	Stratum 3	307	324
	Stratum 4	361	381
	Stratum 5	433	457
	Stratum 6	433	457
Commercial	433	457	517
Industrial	433	457	517

Source: Vice-Presidency of Power Transmission and Distribution, Commercial Management

Evolution of energy rates - Centrales Eléctricas del Norte de Santander - CENS (COP/kWh)

Sector	2013	2014	2015
Residential	Stratum 1	162	171
	Stratum 2	202	214
	Stratum 3	313	329
	Stratum 4	368	387
	Stratum 5	442	465
	Stratum 6	442	465
Commercial	442	465	534
Industrial	442	465	534

Source: Vice-Presidency of Power Transmission and Distribution, Commercial Management

Evolution of energy rates - Electrificadora de Santander - ESSA (COP/kWh)

Sector	2013	2014	2015
Residential	Stratum 1	167	174
	Stratum 2	209	217
	Stratum 3	309	348
	Stratum 4	363	410
	Stratum 5	436	492
	Stratum 6	436	492
Commercial	436	492	540
Industrial	436	492	540

Source: Vice-Presidency of Power Transmission and Distribution, Commercial Management

The criterion is property of assets from the operator at level 1 and applied with rate option.

International subsidiaries

Rates of the regulated market of low voltage Evolution of energy rates ENSA (USD/kWh)

Sector	2013	2014	2015
Residential	0.176	0.176	0.194
Commercial	0.218	0.217	0.236
Industrial	0.188	0.190	0.207

Source: Rates and Economic Studies Management

Evolution of energy rates Delsur (USD/kWh)

Sector	2013	2014	2015
Residential	0.274	0.271	0.232
Commercial	0.238	0.233	0.194
Industrial	0.202	0.197	0.159

Source: Commercial Planning Management

Evolution of energy rates Eegsa (USD/kWh)

Sector	2013	2014	2015
Simple low voltage	0.233	0.229	0.206

Source: Planning, Regulation and Control Management

The rate for simple low voltage applies for residential, commercial and industrial use.

Related indicators

EPM-15 Rates by service type.

Action: Gas

By its nature, residential public utilities have regulated prices. This means that the rates EPM charges its users cannot be chosen freely, but they must be subject to the dispositions determined by the Regulator, which in this case is the Energy and Gas Regulatory Commission (abbreviated CREG in Spanish). This entity sets rules where the methodologies for calculating rates are established; they are based on efficiency criteria so that only efficient costs and expenses are transferred to the consumer. In all regions where it provides its services, EPM seeks to maintain competitive rates, allowing cost recovery and sustainability of enterprises. In 2015, EPM performed proactive management before the Regulator and the Government so that the rules issued for the next rate period would reflect fair and efficient prices.

Rates for the gas markets serviced by EPM increased this year. The causes are the rising cost of gas according to the CREG 089/2013 and increase of the Representative Market Rate.

Management in 2015

As relevant management issues regarding pricing matters of natural gas, we highlight the efforts aimed at defining the supply prices indexer, the proposal of efficiency signage to be incorporated in future methodology for natural gas transportation compensation, and concerning distribution, efforts aimed at the efficient costs recognition of AOM in compliance with the remuneration methodology of this activity.

Evolution of EPM gas rates - Valle de Aburrá (COP/m³)

Sector		2013	2014	2015
Residential	Stratum 1	452	474	532
	Stratum 2	564	592	664
	Stratum 3	1,059	1,044	1,257
	Stratum 4	1,048	1,032	1,246
	Stratum 5	1,200	1,181	1,435
	Stratum 6	1,147	1,128	1,380
Non residential (commercial + industrial)		956	937	1,164
Commercial		958	939	1,166
Industrial		953	935	1,162
Vehicular natural gas		870	774	837

Source: Vice-Presidency of Gas, Commercial Management

Evolution of EPM gas rates - Municipalities with pipeline network outside Valle de Aburrá (COP/m³)

Sector		2013	2014	2015
Sector residencial	Stratum 1	449	499	539
	Stratum 2	589	626	679
	Stratum 3	1,139	1,125	1,308
	Stratum 4	1,123	1,112	1,306
	Stratum 5	1,313	1,310	1,533
	Stratum 6	1,365	1,348	1,568
Non residential (commercial + industrial)		1,071	1,103	1,310
Commercial		1,069	1,102	1,309
Industrial		1,073	1,104	1,312

Source: Vice-Presidency of Gas, Commercial Management

► Evolution of EPM gas rates - compressed natural gas - CNG (COP/m³)

Sector	2013	2014	2015
Residential	Stratum 1	1,927	1,876
	Stratum 2	1,481	1,600
	Stratum 3	1,343	1,481
	Stratum 4	1,315	1,415
	Stratum 5	1,338	1,340
	Stratum 6	1,365	1,380
Commercial	Commercial	1,147	1,234
Industrial	Industrial	1,021	1,019
Vehicular Natural Gas	Vehicular Natural Gas	1,153	1,368

Source: Vice-Presidency of Gas, Commercial Management

Related Indicators

EPM-15 Rates by service type.

Aspect: Transparency and information openness to stakeholders

The EPM Group companies develop communication, education and engagement strategies, based on truthfulness, completeness, appropriateness, timeliness and clarity of the information delivered concerning the company's management, in order to guarantee the stakeholders' trust.

Stakeholder's Vision

We have the opportunity to continue making progress in this topic, especially with three stakeholder groups:

With customers and users, the company should continue making efforts to benefit them increasingly with clear, true and timely information (active transparency), in the topics related to changes in the environment and safety and health. In the same way, the company should use tools that allow it to keep a clear record of the number of users or customers that had been benefited through the delivery of this type of information.

As for suppliers and contractors, it is important to have an appropriate tool that allow the company to keep record of the benefits related to the delivery of information on its policies or programs addressed to suppliers.

With EPM Group people, work should be done to start using again the mechanisms to foster and get to know the suggestions of employees since it is a good practice in terms of dialogue and relationship with this stakeholder group; the company has the opportunity to improve processes taking into account its employees' opinions.

Importance

Transparency and disclosure of information open spaces to strengthen the stakeholders' trust and allow them to make decisions that benefit them in the social, environmental and economic levels.

It allows minimizing corruption and extra costs, development barriers and reputational risks.

Main achievements

Goals for 2015	Achievements for 2015	Compliance
EPM - Online Governance Meet the progress required for the four ICT components: Open Governance, Services, Management and Safety, and Information Privacy	Coordination with the institutional strategy to define the route map for implementation at Group level. Strengthening of employees competences for the strategy compliance. Put into service new procedures and online services, through the mobile application. Strengthening of transparency, participation, and collaboration mechanisms, in compliance with Act 1712 of 2014, among others. Definition of digital vision and accessibility manual for the Group. Diagnosis of the information security management system. Strengthening of user characterization and usability practices incorporation. Formulation of strategies to actively participate in open data schemes.	Total
EPM - Media Consolidate multimedia platform of media and adapt internal media to the current needs of audiences. Create spaces of interaction and participation with employees. Keep good practices of relationship with the Investors stakeholder.	Within the Group EPM integrated system of internal media, design was made and information was collected to start implementation in 2016. Interaction strategy with the EPM People stakeholder, materialized through its internal and external media platform. In 2015 and specifically in the internal media "Mi Canal" (My Channell), activities concerning subjects such as 60 years of EPM, family life, and corporate values were developed. In the corporate intranet "Mi Bitácora" (My Log), participation was promoted through the creation and management of more than 60 work communities and 25 personal ones, and participation activities were generated. A space for employees to share their stories, photos, and writings was created in the Unified Mail.	Total
CHEC Perform Corporate transparency indicator measurement. Celebrate five "Hablando Claro" (Speaking clearly) events and another three with spokespersons, within the accountability framework. Perform, within the "Mesas Zonales" (Zonal Working Groups) strategy framework, one working group in each of the 40 municipalities located in the area of influence. Keep the goals for 2014 regarding face-to-face relationship mechanisms with workers; communication strategies; accountability with Opinion leaders, State, and Colleagues; communication for development with communities and press management.	Transparency measurement process was performed with an 88 points result. Population on which accountability had an impact was more than 2,600 people. There is a zonal working group missing to execute when closing this report that will be performed during the first quarter of 2016. Ensure transparency in the process of listening and responding to different requirements made by spokespersons. Municipal Administration and CHEC dialogue with the community about energy service and responsibilities that each one of them has. Strengthening of scenarios for dialogue, coordination, and commitment generation with the community, customers and users stakeholder. Promote participation by generating processes that enable social organization, citizen control, and accountability. Communities have managed to see spokespersons as strategic actors who end up becoming observers of the commitments acquired during the implemented strategies. <ul style="list-style-type: none"> • Link the indigenous reservations: Cañamomo Lomaprieta, Nuestra Señora Candelaria de la Montaña, Escopetera y Pirza, and San Lorenz, as a social inclusion process. • A synergy process is evident between CHEC's different strategic actors, in order to provide effective and efficient responses to the community and customers stakeholder requests. • Create a space for direct dialogue between the company Management and the community and customers stakeholder. 	Total

Goals for 2015	Achievements for 2015	Compliance
<p>ESSA Strategically manage communication and relationship actions for trust strengthening with stakeholders. Focus communication strategies towards understanding the workers' contribution to the organizational strategy, highlighting corporate values, work by processes, social and environmental responsibility, and human resource of the company. Communicate customer loyalty actions, market growth, and electrical hazard, to increase customers satisfaction and to position ESSA in the market.</p>	<p>ESSA Consolidation of dialogue and participation spaces with the different stakeholders. Development of communication campaigns that facilitated understanding and promoted the contribution made by workers to the organizational strategic management, focused on corporate values, work by processes, social and environmental responsibility.</p>	Total
<p>CENS Maintain relationship with stakeholders through meeting spaces with Suppliers and Contractors, accountability, Expomanagement 2015, among other events fostering the region development. Maintain management of internal and external media that allow timely, clear, and truthful information from channels such us Buenas Energías (Good Energies) TV show, Aló CENS (Hello CENS) radio show, press releases, digital media, among others. Continuous and sustained growth through social networks.</p>	<p>CENS Scheduled events were performed. The universe of users to whom CENS information arrives was expanded through community radio stations. Televisión Regional del Oriente (East Regional Television - TRO) channel made honorable mention to "Buenas Energías" (Good Energies) show, because of its support, dedication, and devotion in favor of the region television development. CENS obtained a recognition for openness to social networks, granted by Transparencia por Colombia (Transparency for Colombia).</p>	Total

Goals for 2015	Achievements for 2015	Compliance
Aguas de Malambo Increase regularity of spaces intended for accountability before the City Council. Manage a radio show of Aguas de Malambo on a local radio station, and manage digital media updating. From institutional communication, coordinate activities led by the commercial area for customer loyalty. Publish an internal annual magazine for communication strengthening.	Radial space between news on Sensación Estéreo (Stereo Feeling) radio station, in which stakeholders actively participate. Digital media permanent updating. Annual magazine was not published during 2015.	Partial
Aguas de Occidente From institutional communication, coordinate commercial area activities to strengthen Customer and Human resource education processes, and to develop the Welfare Program and other organizational climate activities. Fortnightly produce and broadcast the institutional radio show Aló Occidente (Hello West). Permanently update the corporate website, and generate interaction with stakeholders through social networks. Publish four Management Reports during the year, the Sustainability Report, and the 2015 Social Report.	Execution of activities such as neighborhood events, education campaigns to educational institutions, institutional presence in events of the municipalities of influence, and 2015 Welfare Program development. Fortnightly broadcast 80 radio shows. Strengthening of relations with stakeholders through institutional information publication in different media, and holding meetings with municipal councils, mayor's office civil servants, Corantioquia, community action boards, and leaders of different sectors of the municipalities	Partial
Aguas de Urabá Make the most of social networks to generate campaign of intelligent use of water. Diversify website contents with information and transactions useful to users, and increase visitor traffic by 15%.	Generación de contenido gráfico audiovisual para los canales de comunicación. Uso de redes sociales para generar mayor efectividad e inmediatez en el suministro de la información a los grupos de interés	Partial
Aguas del Oriente Antioqueño Maintain communication channels with suppliers and transfer corporate good practices.	Implementation of Línea Contacto Transparente (Transparent Contact Line) in Aguas del Oriente website. Implementation of contact center as a new community service channel.	Total

Goals for 2015	Achievements for 2015	Compliance
Emvarias Implement a website that supports all the activities and demand of the company. Implement the Group EPM Ecosistema Digital (Digital Ecosystem) strategy. Strengthen timely communication with the various stakeholders.	Emvarias website contract and management for its publication in 2016. Progress in the digital community subject. Events and strengthening of channels and relationship with the Suppliers and Contractors stakeholder.	Total
Aguas Nacionales Obtain an 85.30 transparency level.	85 points transparency level in 2015 measurement.	Total

Challenges

Challenges	Coverage	Compliance year	Compliance indicator
Keep or improve EPM and business group subsidiaries performance in the Transparencia por Colombia (Transparency for Colombia) measurement.	EPM Group	2016	2016 transparency indicator results equal or higher than previous measurement.
Meet the progress required for the four components: Open Governance, Services, Management and Safety, and Information Privacy.	EPM Group	2018	Percentage of progress for each year.
Have the Group's Code of Ethics and disclosure it.	EPM Group	2016	Group's Code of Ethics and outreach activities performed.
Prepare a zero tolerance to fraud, corruption, and bribery policy in each one of the EPM Group national subsidiaries.	EPM Group in Colombia	2016	Number of subsidiaries with policy approved / Total national subsidiaries.
Put into practice transparency and conflict of interest statements in the EPM Group national subsidiaries.	EPM Group in Colombia	2016	Number of subsidiaries with this practice / Total national subsidiaries.
Incorporate Ethics Hotline "Contacto Transparente" (Transparent Contact) in Eegsa and Delsur subsidiaries.	Eegsa and Delsur	2016	Number of subsidiaries with Ethics Hotline incorporation / Total pending subsidiaries.
Extend the scope of Line 01 8000 522 955 to international subsidiaries.	EPM Group	2016	Number of international subsidiaries joined to the Line / Total international subsidiaries.
Design and implementation of ML/TF control activities in relationship with suppliers in international subsidiaries.	EPM Group	2016	Number of employees that approved the course / Number of employees invited to participate.
Hiring services for ML/TF Risks verification, fraud, and corruption at Group level, starting by national subsidiaries.	EPM Group	2016	Number of subsidiaries with implementation / Total international subsidiaries.
Design and implementation of ML/TF control activities in relationship with stakeholders other than suppliers in national subsidiaries.	EPM Group in Colombia	2016	Activities performed / Activities scheduled.
Obtain registration as a Company active in compliance with anti-corruption measures.	Grupo EPM Colombia	2016	Number of implemented controls / Number of proposed controls.
Attendance of the main stakeholders' representatives in the annual public accountability exercise.	EPM	2016	EACA registration for EPM.
Disclosure of 2015 Sustainability Report and development of working groups with stakeholders	EPM	2016	Number of stakeholders with representatives in the event.

Challenges	Coverage	Compliance year	Compliance indicator
Perform accountability within the parameters of Transparencia por Colombia (Transparency for Colombia).	ESSA	2016	Reputation measurement.
Make an external newsletter, keep the number of radio stations that live broadcast Aló CENS (Hello CENS) radio show to reach 100 thousand listeners, and increase the number of channels from 40 to 55 that broadcast "Buenas Energías" (Good Energies) television show.	CENS	2016	Hosting the event and broadcasting on TRO channel.
Keep the spaces intended for accountability before the City Council.	CENS	2016	Mails sent, quantity of radio stations and listeners, and quantity of increased channels.
Keep the spaces intended for accountability before the City Council.	Malambo	2016	Reporting management reports before the City Council.
Strengthen regularity of events and meetings with mayor's offices and councils to socialize business management in the municipalities of influence.	Aguas de Occidente	2016	Number of meetings held.
Attendance to the City Council to present results and days of business presentation and education with observer teams and community in general.	Aguas de Oriente Antioqueño	2016	Compliance with scheduled events.
Keep on making face-to-face events with Suppliers and Contractors. Publication of: "Pongámonos al día con Emvarias" (Let's catch up with Emvarias) newsletter, website, and Ecosistema Digital (Digital Ecosystem) strategy.	Emvarias	2016	Event in each semester, and media management.
Promote the brand Urabá in social networks and increase internal communication indicator by 10 points.	Aguas de Urabá	2016	Percentage of increase in communication measurement.
Position visual media in headquarters.	Aguas de Urabá, Aguas de Occidente, and Aguas del Oriente Antioqueño	2017	Communication measurement.

Related Indicators

G4-SO4: Communication and training on anti-corruption policies and procedures

EPM-16 Transparencia por Colombia Indicator

EPM-17: External communication strategy and mechanisms

Action: Transparency Practices

By means of its main transparency practices, the EPM Group delivers timely, reliable and understandable information to its stakeholders, showing clear rules regarding organizational culture standards and principles, its mechanisms for engagement, interaction and verification of compliance with objectives and goals. As a consequence, the following practices are prioritized:

Ethics and transparency mechanisms: Given the initiatives and self-regulatory instruments applied by EPM Group, especially those that aim at keeping the operation in an environment of security, transparency and confidence, EPM provides all the stakeholders with overall parameters of performance, in order to minimize the materialization of situations associated with risks related to fraud, corruption, bribery, money laundering and terrorist financing. These best practices are a way of facilitating the fulfillment of the business purpose, strategy and objectives, both statutory and legal, and as the foundation of a culture based on ethical values and principles. Such practices are: Code of Ethics, Manual of Business Behavior, Corporate Governance Manual, Code of Conduct for Suppliers and Contractors and Zero Tolerance Policy to fraud, corruption and bribery.

Transparency measurement: It consists of a voluntary measurement of the transparency practices of the public utilities providers in Colombia, which identifies their degree of development and encourage them to implement improvement plans

and actions in their management, to acknowledge the companies committed to ethical and transparent relationships with their stakeholders and foster compliance with international standards. This is an annual measurement, and EPM and its national subsidiary companies have applied it during eight consecutive years.

Online governance: Strategy aiming at improving the efficiency, contributing to transparency increase, encouraging citizens' collaboration and participation and strengthening the company's management with stakeholders and the conditions for increasing competitiveness of institutions engaged with the Colombian government, using the information and communication technologies (ICT) as leverage.

Management in 2015

The Transparent Contact Ethics Hotline, mechanism by which EPM and its affiliates manage allegations of wrongdoing, was awarded as the best practice in the country by the Transparencia por Colombia Corporation.

By the end of 2015, we had the information to draw up an Ethics Code for the business group the first trimester of 2016.

EPM took part, along with five of the main public utilities companies, in a pilot test held by the Transparencia por Colombia Corporation to show the main changes in the assessment methodology, whose purpose is to measure new aspects derived from regulatory adjustments or new references to evaluate the transparency and corruption indices in different countries.

The online governance strategy is a modern relationship mechanism for the EPM Group, which leverages the construction of a country with better online services, a more management-efficient, transparent and participatory country, empowering and generating trust in its citizens, using the ICT as leverage and encouraging and facilitating actions required to make progress in the Sustainable Development Goals (SDG) suggested by the 2014-2018 National Development Plan.

Ethics and Transparency Mechanisms

- Approval of the zero tolerance to fraud, corruption and bribery policy by EPM's Board of Directors in order to provide behavior measures aimed at minimizing the materialization of risks situations related to these scourges.
- Implementation of statements regarding Transparency and Conflict of Interest, as a voluntary initiative of EPM partners in order to strengthen confidence between the relationship company-employee and business-citizenship to ensure transparency in the work of EPM Group.
- Participation in the EACA (Spanish abbreviation for companies active in compliance with anti-corruption measures) program, initiative led by the Secretariat of Transparency of the Presidency of the Republic.
- Participation in the DEPE (Spanish abbreviation for From Business to Business) program, led by the Global Compact Network, which is about training smaller businesses, suppliers and contractors on tools for preventing fraud and corruption.
- Participation in the Collective Agreement of the Electricity Sector on combating corruption and promoting free competition, promoted by the National Operation Council (abbreviated CNO in Spanish) and XM S.A. E.S.P.
- Implementation of controls to prevent money laundering and terrorist financing (ML / TF) in EPM's key processes such as: Supply Chain, Involvement with Servers and Purchase of Real Estate, among others.
- Consulting services for projects of expansion at national and international levels in the prevention of risks related to ML / TF.
- Participation and leadership in the Committee of Compliance Officers from the real sector.

- Leader in the ML / FT risk measurement initiative at a regional level by the UIAF, reference in the real sector of Antioquia regarding ML / FT risk management.
- Development of an online course and in-class training for their servers on ML / FT risk management.

Measurement of Transparency

To consolidate the transparency practices within the Group, EPM has been leading and coordinating since 2014 the definition of an improvement plan covering the whole Group. The parent company's executives are analyzing the plan to send possible supports to each subsidiary company, under the figure of operative involvement. This plan reached out each subsidiary company in 2015 with the purpose of starting its implementation.

For the eighth consecutive year, EPM took part in the Business Transparency measurement, Public Utilities chapter. It achieved a result of 96 points over 100, which allowed it to be one of the best ranked companies within the group that is part of the measurement. The work carried out to follow its way up was based on the compliance with the improvement actions set in the 2014 measurement.

The generalized increasing results in all the Group's companies that took part in the measurement stand out, as well as the EPM Group's general result. The following table shows the results.

Transparency Measurement Results

Transparency Index	2013	2014	2015	Variation
EPM Group	81	83	88	6.7%
EPM Parent Company	91	93	96	3.2%
Aguas Nacionales	68	78	85	9.0%
Aguas de Oriente Antioqueño	64	79	84	6.3%
Aguas de Occidente	72	73	88	20.5%
Aguas de Urabá	68	63	77	22.2%
Aguas de Malambo	42	47	56	19.1%
Emvarias	-	71	77	8.5%
CHEC	87	87	88	1.1%
ESSA	76	83	90	8.4%
EDEQ	85	88	95	8.0%
CENS	79	86	91	5.8%

Source: Vice Presidency of Corporate Audit

The measurement frequency is annual. The results of the EPM Group indicator in 2014 have an average measurement different from the 2012 and 2013 measurements, considering that in 2014 UNE was not part of the Group indicator and that Emvarias entered at that average.

Online Governance

After restructuring its management plan according to the changes defined by the new Online Governance Decree (2573 of 2014) and the Law of Transparency and Access to Public Information (1712 of 2014 and its Regulatory Decree 103 of 2015), EPM adjusted the way of addressing this commitment, making it a Group's program and emphasizing the development of projects that provide the components of ICT for open governance, ICT for services and ICT for information management, security and privacy.

Additionally, the first plenary of the EPM Group's Online Governance leaders was held in order to align work plans and share experiences and actions needed to comply with the Law of Transparency and Access to Public Information.

For the energy, water and sanitation subsidiary companies, progress was made in identifying in a cross-sectional sense the current status of the Online Governance strategy implementation, including the information security management system diagnosis, the ICT component for management and assessment of services offered online and Open Governance practices.

The main progress actions of each company are presented below:

CHEC

- Creation of an interdisciplinary team to manage the strategy and the continuous monitoring by the company's Management and the Management Committee.
- Diagnosis of each component and definition of implementation plan maps.

CENS

- Publication of required information, improvement of the website and its applications for procedures and services, as well as implementation of one-stop windows —online services, definition of customer characterization and design of service offers by subsegments.
- Incorporation of usability and accessibility, adopting different channels and allowing users and the community's feedback.

ESSA

- Consolidation of the strategy implementation team.
- Development of the ICT component for services with the following achievements: user characterization; implementation of accessibility and usability guidelines in the institutional website; web system for integrated contact, petition, complaints and claims; implementation of online certifications and reports for supplier payments and withholdings, and billing and information carried out to the municipalities for public lighting; online procedures and services for tender procedures, RCCs and search, notifications by notice, search and bill payment.
- Development of the ICT component for management, by means of adopting and implementing nine IT processes.

EDEQ

- Inclusion of Online Governance monitoring in the Management Committee, with bimonthly assessments of the strategy's compliance status.
- Progress was made in the personal data protection program, which impacts directly the information security and privacy component.

Water subsidiary companies

- In Aguas de Malambo, Aguas de Occidente, Aguas de Urabá, Aguas del Oriente and Aguas Nacionales, the Online Governance strategy and its detailed extent were introduced, allowing the definition of leaders responsible for the implementation.

Emvarias

- Start of the new website construction, incorporating the solutions required to comply with the strategy.
- Change of migration platform of servers and migration of virtual desks.

Related Indicators

G4-SO4: Communication and training on anti-corruption policies and procedures

EPM-16 Transparencia por Colombia Indicator

Action: Information for Stakeholders

With the purpose of sharing the Business Group management with as many people as possible and strengthening the stakeholders' engagement to go beyond the informative function, both EPM and the other Group companies implement different complementary spreading and interaction activities. The following are among the main activities:

Sustainability Report: It is a balanced report of the organization on the economic, social and environmental management of the last year, and its positive or negative impact on society. It is a corporate sustainability management tool that allows identifying gaps, risks and opportunities, prioritizing actions and tracing the initiatives reported.

Public accountability: It is carried out annually in order to inform the main achievements and challenges of the Group's corporate management and its alignment with stakeholders, based on the contents collected in the Sustainability Report.

External media: Communication, education and relationship strategies implemented by each Group's company to get close to the communities of the company's area of influence, so that they know the company's management in the territory and understand the topics related to the public utilities provision.

Management in 2015

The sustainability report that reflects the management carried out in 2015 corresponds to EPM and contains information of the EPM Group.

In its annual event, EPM presented its Business Group accountability, and the same presentation was carried out with representative entities and groups for the regional and national development. For their part, the affiliates focused on presenting their accountabilities before the municipal councils and stakeholders of the areas of influence.

EPM has a media platform, which was used in 2015 to promote corporate transparency, integral information, the right to information and inclusion. Communication priority in the power transmission and distribution business focused on matters such as savings, fees, safety, projects and the creation of a payment culture based on appropriate values, standards and behaviors. The water affiliates and some international affiliates strengthened their institutional communication based on structured plans and taking advantage of digital media.

Sustainability Report

Mostly, the EPM Group companies prepare their sustainability reports using the GRI methodology in different versions (3.1 and G4). For its part, EPM uses the G4 version, which enables the sustainability report preparation by organizations, regardless of their size, sector or location. Likewise, this report is aligned with the International Integrated Reporting Council (IIRC) framework.

Global Reporting Initiative (GRI) is an organization promoting the use of sustainability reports so that organizations are more sustainable and contribute to sustainable development.

<https://www.globalreporting.org/information/about-gri/Pages/default.aspx>

To prepare the EPM Group report, the content and quality principles established by **GRI-G4** are taken into account:

Content principles:

- Stakeholder inclusiveness
- Sustainability context
- Materiality
- Completeness

Quality principles:

- Balance: balance between positive and negative aspects. A report is not advertising material.
- Comparability: information to measure progress of the aspects; reference to other sectors and other companies.
- Accuracy: accurate information and descriptions consistent with the aspects presented.

- Timeliness: regularity in the report presentation so that decisions can be made in time.
- Clarity: understandable language.
- Reliability: information truthfulness.

The Sustainability Report preparation is a continuous organizational learning process evolving permanently. EPM started using the GRI methodology to prepare the report since 2006; its evolution is presented below.

Evolution of the Sustainability Report

Items	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015					
Extent	EPM							EPM and affiliates in Colombia	EPM and EPM Group						
Contents	Sustainability Report (social and environmental)							<ul style="list-style-type: none"> - Financial management. - Social and environmental management. 	<ul style="list-style-type: none"> - CEO's Management - Management of the Board of Directors - Corporate Governance - Financial management - Social and Environmental Management - Management in Medellín 						
GRI Methodology	3.0 C		3.0 B	3.0 B+	3.1 B+	3.1 A+		Completeness G4							
Inspection	Internal assurance			Icontec	Deloitte										
Cop Global Compact				Basic		Advanced									
Systematization						Idsos	Idsos	Idsos Standard formats							
								Sharepoint Website							
Publication	Printed (FSC Standard)		Printed in recycled paper			Multimedia	Website								
Alignment with External Initiatives		Global Compact MDG					Global Compact MDG DJSI ISO26000		Global Compact MDG-SDG DJSI ISO26000 Integrated report						

Obtained recognitions:

2012: GRI A+ recognition

2013: Best Dow Jones score for a social report

2014: Wbcsd recognition for balance in the information reported, especially regulatory non-compliance penalties, revelation for non-compliance of goals and employees' complaints from contractors.

FSC, (Forest Stewardship Council) Standard, which certifies the handling of forests from which the wood to produce the paper was obtained.

To know more about the EPM's Sustainability Report, see Report Profile.

The reports are presented to the shareholders' meeting, employees and the community in different dialogue spaces, such as meetings with community action boards, the municipal Council, among others.

To see the management and sustainability reports of the EPM Group affiliates, go to their respective websites.

Accountability

The EPM Group's public accountability event, in its third edition held on April 24, 2015, achieved once again its purposes of discussing the opportunities, works, projects and challenges that the EPM Group face in the short and medium term, and generating dialogue.

The general presentation was broadcasted by the TV local channel, Telemedellín, and in the same space representatives of the different stakeholders, including the internal one, were called to attend in person and via streaming for those in other locations and affiliates. Different virtual platforms were enabled in this space to receive questions and, subsequently, publish the answers on the website to broaden their spreading.

As part of the same event, the press conference chaired by the CEO and the Medellín' Mayor took place, with the participation of 50 journalists; in addition, representatives of the stakeholders (the community, customers and users, EPM people, suppliers and contractors) engaged in the dialogue desks. Likewise, dialogue spaces took place with two figure groups of great importance for the organization: environmental authorities and external

assurance providers; "Transparency and Disclosure of Information for the Stakeholders" was the main topic of the dialogue.

In 2015 this management report was presented in specific meetings to groups with which the company permanently keeps in touch: directors and editors of national and local media, Comité Intergremial (Inter-guild Committee), Proantioquia, Fraternidad Medellín Foundation and EPM's former employees, among others.

See the event and dialogue desk reports in:

<http://www.epm.com.co/site/Home/SostenibilidadEPM/InformedeSostenibilidad.aspx>

Accountability Mechanisms

Company	Event or Means (Description)	Date (month and day)	Target Audience	Number of people served	Main Achievement
EPM	EPM Group Sustainability: Dialogue and accountability.	April 24	Owner, customers and users, colleagues, EPM Group people, the community, investors, partners, suppliers and contractors, the State	250	Strengthening of the concept of EPM as a sustainable company.
	Accountability to investors.	April 30	Investors	90	Increased credibility and trust in the company.
	Management report to entities and specific groups	April - August	Directors and editors of national and local media, Comité Intergremial (Inter-guild Committee), Proantioquia, Fraternidad Medellín Foundation and EPM's former employees	140	Strengthening of relationships with representative groups for regional development.
CHEC	Working groups by zones.	June - December	Community leaders	2.336	Strengthening of dialogue scenarios, agreement and generation of commitments with the community and customers and users stakeholders.
	Hablando Claro. (Talking Clearly).	August 28 (Riosucio) September 25 (Quinchía) October 9 (Viterbo) November 20 (Neira)	Community leaders	245	Synergy between different strategic personalities from CHEC, with the purpose of providing effective, efficacious and efficient answers to the community and customer requests.

Accountability Mechanisms

Company	Event or Means (Description)	Date (month and day)	Target Audience	Number of people served	Main Achievement
CHEC	Accountability - Shareholders' Meeting	February 27	Owner	17	Compliance with the annual accountability and presentation of the Sustainability Report.
	Control spokespeople meeting		Control spokespeople	43	Visibility of spokespeople as strategic personalities and inspectors of the commitments acquired by the company with the community.
ESSA	shareholders' meeting.	March 6	Shareholders	80	Discussion of the 2015 management results.
	Publication on website. Sections: The community, Customers and Shareholders.	March 6	The community	N.D	Presentation to the community in general.
	Presentation to employees.	March 6	Employees	900	Delivery of the printed executive summary.
	Event with suppliers and contractors	May 14	Suppliers and contractors	283	Discussion of the 2015 management results.
	Event with mayors.	July 16	The State	20	Discussion of the 2015 management results.
EDEQ	Presentation in the shareholders' meeting.	March 19	Shareholders' meeting	4	Presentation of the financial, social and environmental results.
	Press conference with local journalists.	April 9	Opinion leaders	6	Presentation of the financial, social and environmental results.
	Management forum - EDEQ employees.	April 29	EDEQ people	341	Presentation of the financial, social and environmental results.
	Presentation of the report on the media: Al día con la buena energía (Up to date with the good energy) EDEQ radio program, website, e-mails.	May - June	The community		Presentation of the financial, social and environmental results.
	EDEQ bill spreading.	May	Customers	168,548	Presentation of the financial, social and environmental results.
CENS	Management Report approval by the Board of Directors.	March 4	Owner, investors, partners	10	Trust strengthening.

Accountability Mechanisms

Company	Event or Means (Description)	Date (month and day)	Target Audience	Number of people served	Main Achievement
CENS	Publication and distribution of the CENS Sustainability Report.	March 21	Owner, customers and users, colleagues, EPM Group people, the community, investors, partners, suppliers and contractors, the State	1,000	Strengthening of knowledge of the duty and relationship of the company with its stakeholders.
	Accountability event 2015 by the CEO to stakeholders, through the live broadcast on the TRO channel.	June 6	Owner, customers and users, colleagues, EPM Group people, the community, investors, partners, suppliers and contractors, the State	100,000	Strengthening of knowledge of the duty and relationship of the company with its stakeholders.
	Presentation of the Sustainability Report to the Department Assembly.	July 5	The State and opinion leaders	100	Strengthening of knowledge of the duty and relationship of the company with its stakeholders.
	Interview with the CENS CEO on the Buenas energías (Good energies) TV program regarding CENS management.	October 19	Customers and users, the community	500,000	Strengthening of knowledge of the duty and relationship of the company with its stakeholders.
Aguas Nacionales	Attendance to the Medellín and the municipality of Bello Councils subpoenas.	June	Council members - the community	100	Sense of belonging to the project in the community's representatives and standardization of the process language.
	Reception of inspection visits from: The Medellín Council, the Bello Council, Office of the Comptroller General of Medellín, IDB governors and entrepreneurs.	June - September	Owner, control entities, opinion leaders	300	Delivery of information to the parties interested in matters of investment, environmental impact and benefits of the project for the community and its development.
	Direct communication spaces with the plant inspector's office.	All the year	The community	20	Constant dialogue and sense of belonging to the project.
Aguas del Oriente Antioqueño	Company's presentation and services.	August 27	Mayor's office candidates	2	Provision of information on the company's condition and the management challenges.
	2014 Management Report and challenges for 2015.	August 3	Council members and the community	1,520	Mass spreading of information on the company.

Accountability Mechanisms					
Company	Event or Means (Description)	Date (month and day)	Target Audience	Number of people served	Main Achievement
Aguas del Oriente Antioqueño	Company's presentation and processes.	June 30	Employees and their families	40	Supply of information of the company and its social responsibility.
Aguas de Occidente	Presentation of the 2014 Sustainability Report.	February - March	Board of Directors members, partners and municipal councils	52	Strengthening of stakeholder trust and engagement.
	Management report to July 2015 and bimonthly management reports (Boards of Directors).	February to October	Municipal councils of the municipalities of influence and Board of Directors members	35	Strengthening of stakeholder trust and engagement.
	Meetings with stakeholders.	May 15	Municipal councils Municipal secretary of planning Officials of the Santa Fe de Antioquia's mayors' office	100	Presentation of general information of the company, public utilities bills, projects and investment in the municipalities of influence.
Aguas de Urabá	Meeting with mayor's offices and community leaders.	Monthly	Community leaders, mayors and administrative secretaries	150	Relationship with these stakeholder groups was strengthened, allowing the effective solution of situations that benefit the community, and allowing them to get to know the aspects related to investment projects and fees.
	Progress of works.	Weekly	Community leaders	35	Spreading of information regarding the company's works in each municipality.
Aguas de Malambo	Session before the Municipal Council	March 16	Municipal council	30	Strengthening of the company's transparency.
	Publications of the management reports on the website.	February 16	Stakeholders	23	Strengthening of the company's transparency.
Emvarias	365 días construidos juntos (365 days built together) event.	April 27	Internal audience	130	Recognition to people who led the goals achieved in the year.

Source: Executive Vice Presidency of Business Management / Vice Presidency of Communication and Corporate Relations

External Media

The new "radio strategy" started in 2015; it is an institutional radio experience aiming at establishing an active and two-way communication between EPM and the Community and Customers and users stakeholders, addressing the information demand, guiding and educating on products and services offered by the company and the projects developed, as well as supporting the relationship model with these two stakeholder groups.

The radio strategy includes, among other products, radio magazines, interview programs and radio reports that, according to the communication needs of EPM, are broadcasted in different subregions where the organization is present.

The third season of La vida de nosotros (The life of our own) series was also broadcasted; this time, it was dedicated to the Eastern Antioquia subregion. With Camino al Barrio (On our way to the neighborhood), stories and personalities of the city were highlighted. With Cuidamundos 60 años (World's protectors 60 years), the community participated in a new interaction experience for rational use of public utilities, with challenges that allowed big winners to receive prizes for their communities. With the Plan Planeta (Planet plan) TV program, the company addressed the environmental and corporate social responsibility complements. Finally, the company was permanently in touch with citizens in a two-way communication on social networks.

External media

Company	Communication strategy	Impacted stakeholders	Date	Number of people served	Main achievement
EPM	Mass media management	Opinion leaders and community	All the year, daily frequency	N.D.	<p>Newsletters published: 346 Statements to public opinion: 15 Media requirements addressed: 1,196 Press conferences: 42 Visits to EPM projects with the media: 46 News published on the media: 15,452</p>
	Radio strategy: Aló EPM	The community	All the year, daily frequency	N.D.	<p>"Aló EPM: 33 productions and broadcasts of the radio magazine in the Antioquia subregions: East, West, North, North-East, South-East, Magdalena Medio, Bajo Cauca and Urabá. Besides, the 200 productions and broadcasts of the radio magazine on the Valle de Aburrá subregion Ituango Project radio productions: Con Vos (With You): 33 productions of the program with 66 broadcasts Sobre la Mesa (On the Table): 33 productions and broadcasts of the program De Camino en Camino (From Road to Road): 33 reports in 99 broadcasts Nueva Esperanza Project radio magazine: 33 productions and broadcasts</p>
	Alternative, independent, community and civic media	Opinion leaders and community	Three relationship moments	N.D.	<p>Participation spaces for the creation of a public policy with clear, strategic and fair guidelines established in Agreement 73 of 2013, during weeks 15 and October 22 Training day for the media in innovation, strategic business planning and communication trends between November 15 and 22. Media conference (Medellín Mayor's Office Alliance) was held on December 3; the main topic was work in networks</p>

External media

Company	Communication strategy	Impacted stakeholders	Date	Number of people served	Main achievement
EPM	Cuidamundos (World's protector) EPM 60 years The life of our own, Eastern Antioquia season	The community	Second semester of 2015	N.D.	Misión Cuidamundos (World's Protector Mission), EPM 60 years: The Misión Cuidamundos EPM 60 years TV contest program was produced and broadcasted, in which 18 districts of the city faced advantage tests related to public utilities provided by EPM and preliminary challenge tests. The space consisted of six chapters or broadcasts, five prerecorded and the last one live from the Himerio Pérez López auditorium, at the EPM Building, with the presence of cheerleadings from different neighborhoods of the city. The series had a section to remember the history of public utilities in the city and the history of EPM, the services it provides and the its future challenges. This series was a TV challenge for EPM and Telemedellín, since it is the first time that a reality-type contest is produced with large-scale games in regional and local TV. The life of our own, Eastern Antioquia season: Micro documentary series that tells the stories of people who have had a favorable life impact since EPM is present in their communities; or who are an important in the social fabric of their communities and, therefore, EPM makes them visible. A space to emphasize and foster values and make communities visible. Until now three seasons or group of programs have been produced, on the area of influence of Ituango and Urabá. In 2015 the third season, dedicated to Eastern Antioquia, was premiered and it was broadcasted from October 5 to 29, from Monday to Friday in the Teleantioquia channel.

External media

Company	Communication strategy	Impacted stakeholders	Date	Number of people served	Main achievement
EPM	Camino al Barrio (On our way to the neighborhood)	The community	All the year, weekly frequency	N.D.	Camino al Barrio (On our way to the neighborhood) is a community TV program broadcasted by the Teleantioquia and Telemedellín channels. Each Saturday, the program visits neighborhoods, towns and known sites of Medellín to make communities visible. In 2015 52 live programs were broadcasted.
	Plan Planeta (Planet plan)	The community	All the year, weekly frequency	N.D.	TV program whose purpose is to show projects, studies and good environmental practices that contribute to sustainability, either of EPM or any other company or entity. In 2015 51 live programs were broadcasted.
CHEC	Website	Customers/users The community Suppliers and contractors CHEC	January - December	110,325	Interaction actions with the community and customers through social networks and website were consolidated.
	Publications on the press	Customers and users and The community	January - December	1,470,332	Spreading of power outages, calls, contracting processes and company's news in the most read newspaper of Caldas.
	Bill	Customers and users	January - December	457,992	Bill segmentation and publication of topics according to the type of customer. 12 annual publications for industrial and residential, urban and rural customers.
	Radio and TV	Customers and users and The community	January - December	1,470,332	Spreading of corporate matters in radio networks, community radio stations, Telecafé and UNE.
	Communication strategies aiming at customer's development and education.	Customers and users and The community	January - December	33,626	34 municipalities benefited from the Gente con energía (People With Energy) Company's Educational Plan, which manages four ideal behaviors: Responsible use of the service, payment culture, use of the service as contribution to the quality of life and use of forward-looking channels.
ESSA	Website and social networks	All stakeholders	January - December	N.D.	Consolidation of the main platform of the ESSA's digital ecosystem and increased promptness and timeliness of information.

External media					
Company	Communication strategy	Impacted stakeholders	Date	Number of people served	Main achievement
ESSA	TV Program	All stakeholders	June - December	N.D.	ESSA's management promotion through inclusive audiovisual alternatives.
	Radio Program	All stakeholders	October - December	N.D.	Sustainable and competitive territory promotion through the radio strategy.
	External printed newsletter every two months	All stakeholders	January - December	2,000	Segmentation of external interest contents.
EDEQ	Social Education Plan	Community and customers and users	January - December	14,486	Democratization of information related to the electrical energy service provision and Laws 142 and 143 of 1994.
	Citizen participation spaces	Customers and users	January - December	124	Strengthening of relationships with leaders of the Department and the State.
	VII Supplier's Conference	Suppliers and contractors	August 27	224	Discussion of information related to the contracting process.
CENS	Radio program Aló CENS, which reaches users and communities of socio-economic strata 1 to 3	Customers and users, the community, opinion leaders	March - December	90,000	Learning about CENS management and participation of its stakeholders.
	TV program "Buenas energías" (Good energies), which is a space to get to know CENS management and the stories of stakeholders' lives	Customers and users, CENS people, the community, suppliers and contractors, the State, opinion leaders	March - December	500,000	Learning about CENS management and participation of its stakeholders.
	Digital newsletter for the stakeholders	Customers and users, CENS people, the community, suppliers and contractors, the State, opinion leaders	Monthly	1,000	Learning about CENS management and achievements.
	CENS's digital media for internal audience: CENS digital radio, digital newsletter, new intranet and mass e-mails	CENS people	Weekly	1,000	Learning about CENS management

External media

Company	Communication strategy	Impacted stakeholders	Date	Number of people served	Main achievement
Aguas Nacionales	Communication for education: festivals of the river, educational games, educational booklets, infographics, photographic exhibition, plays, educational material, school kits and trainings	The community	February - December	2,000	The community, the media, entities and other parties interested in the projects talk positively about them.
	Informative communication: newsletters, flyers, presentations, videos Reception of visits and information from the media Spreading of work progress Digital media management and spokesperson's position coordination	Community of the direct area of influence of the Bello WWTP Project, North Interceptor and Plaza del Agua (Water Square)	February - December	2,000	The community, the media, entities and other parties interested in the projects talk positively about them.
	Relationship communication: suppliers and contractors event, visit protocol, attend the subpoena of the control entities, campaign of sense of belonging for the works	The media, IDB ambassadors, control entities, the government, EPM executives	February - December	1,500	27 visits of the EPM Group were received, that is 203 people.
Aguas del Oriente	Radio and flyers	The community	January - December	2,600	Programmed outage announcements.
Aguas de Occidente	Suppliers and contractors conference	Suppliers and contractors	August	59	Better relationships with suppliers and contractors.
	Activities in neighborhoods	The La Maquea and Buga sectors from Santa Fe de Antioquia	May and November	500	Education, institutional presence, brand positioning.
	Education and recreation for child population	Educational institutions from the municipalities of Sopetrán and San Jerónimo	June - July, 2015	180	Education to children on water protection and conservation.

External media

Company	Communication strategy	Impacted stakeholders	Date	Number of people served	Main achievement
Aguas de Occidente	Press publications and radio programs	Stakeholders, customers and the community in general	January - December	ND	Strengthening of communication with stakeholders, customers and the community in general and institutional presence.
	Knowledge interchange between Aguas de Urabá and Aguas de Occidente	Aguas de Occidente employees	April	33	Generation of relationship spaces, standardization of concepts, generation of synergies and discussion of experiences.
Aguas de Urabá	Línea Directa (Direct Line) newsletter, social network management	All stakeholders	Weekly	1.755	Increase of the company recognition and supply of information in a timely and effective way.
Aguas de Malambo	Suppliers and contractors conference	Suppliers and contractors	January 16	23	Open information with the stakeholder group.
	Supplier and contractor communication regarding project progress	Suppliers and contractors	February 16	23	Open information with the stakeholder group.
Emvarias	Event with suppliers and contractors	Suppliers and contractors	February 26 and December 17	200	Excellent attendance and achievement of the objective of the two meetings.
	Pongámonos al día con Emvarias (Let's Catch Up with Emvarias) communication channel	Suppliers and contractors	February 26 and July 3	250	Creation of an exclusive communication channel for the stakeholder group.
	Survey on internal communication channels	Internal audience	October 19	120	Compliance with the annual survey.
Ticsa	Presence in specialized fairs and journals	Customers and users	Second semester	60,700	Brand presence.

Related Indicators

EPM-17: External communication strategy and mechanisms



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