



Medellin, November 3, 2015

# EPM has prepared to deal with the El Niño phenomenon, but its severity requires that we face it together

- The El Niño phenomenon is impacting in a severe way the hydrology, with a decrease of 50% of the historical contributions of rains in the past two months.
  - Throughout the year, the river basins that feed the EPM reservoirs have received 30% less rain than the historical averages
- This deficit in energy would be equivalent to a year without generating at maximum capacity of the Guatapé power plant, associated with the El Peñol reservoir
- The low hydrology is requiring a major stake in the thermal generation of high costs to meet the energy demand
  - EPM has been serving the country through the thermal power plants generation such as La Sierra since May and Dorada since September, and they will continue to carry it out until we overcome the El Niño phenomenon
  - The company welcomes the recent measures taken by the Ministry of Energy and Mines sector. The high participation of thermal generation will have an impact on the rates
- EPM will adopt, from the November consumption of this year, to be billed in January 2016, the scheme of option pricing to defer the increase and invite its customers and users to save energy to help the country and minimize the impact
- The Christmas lights will be kept as a city project, but its lighting shall be reduced by one hour









 The impact of the El Niño phenomenon in the results of the business power generation in Colombia will be offset by efficiencies in costs and expenses arising from the transformation program of the company, and for the good results of other businesses and subsidiaries of the EPM Group in Colombia and in other geographies

EPM permanently monitors the climatic and hydrological conditions following the reports of the main world's climatic agencies, where even though initially they predicted a weak and short El Niño phenomenon; the event was developing and evolving into a stronger condition and longer lasting. An El Niño phenomenon in this category requires being together as a country in order to face better the challenges that represent in the generation and distribution of energy and in the drinking water supply.

According to the Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, Ideam), the El Niño phenomenon will continue to influence the weather for the remainder of 2015, with a decrease in the amount and frequency of rainfalls and a high probability that it extends until the second quarter of 2016, coinciding with the first dry season or less rain at the beginning of the year.

These water and climatic conditions in Colombia have led to a decrease in the levels of the reservoirs, a significant increase in the generation of energy with thermal power plants and, consequently, higher energy prices in the stock market and higher cost restrictions, added that by not having enough gas for the thermal generation has been necessary to produce liquid fuels. The changes in the routines of water and energy consumption by customers/users associated with high temperatures, and the effects of macroeconomic factors that lead to an increase in the components of the rates are added to this situation.

### Measures that will be undertaken

In this complex scenario, EPM has acted in a responsible manner as it has been its tradition, with timely decisions to ensure its services. The company has allocated resources and articulated programs for the care of the river basins and, in recent years, has made high investments and managed agreements to ensure the availability of liquid fuel in its thermal power plants, La Sierra and Dorada (owned by Central Hidroeléctrica de Caldas S.A. E.S.P. (CHEC), subsidiary of the EPM Group). This has allowed to generate with La Sierra since May and with Dorada since September. Likewise, it has bought firm gas to allocate part of it into these thermal power plants, which reduces its costs against the operation with liquid fuel.









But the measures don't stop there. EPM has managed its reservoirs wisely since last March; moreover, it works in returning to the national electric system the Termobarranca power plant (owned by Electrificadora de Santander S.A. E.S.P. (ESSA), EPM Group subsidiary), which would provide 48 megawatts, and have a campaign with its customers and users that would promote the efficient use of water and energy. Leveraged into the received resources by concept of reliability charge, EPM has complied and will continue to comply with the delivery of its firm power to the National Interconnected System (SIN). In addition, it continues to work with the unions and the national Government in efforts to face the rigors of the El Niño phenomenon.

### **Reservoir conditions**

As of October 31, the addition of the reservoirs to generate EPM hydropower was 63.5% of its useful volume. Its most representative reservoirs were as follows: EI Peñol 66.2%, Miraflores 68.8% and Riogrande II 46.3%.

Obviously, this year has also presented a decrease in the rain water flows that supply the drinking water plants to provide water service. Despite the rainfall recorded in the past few days, these fail to offset the levels that usually should be in the reservoirs. The last October 31, La Fe reservoir was at 80% of its total capacity, Piedras Blancas at 86% and Riogrande II at 60%. This last reservoir is employed in a multipurpose way by EPM, since energy is also generated with its water. As a result, two different values are recorded. Power generation uses the useful volume and, in waters, the total capacity.

This situation leads the company to take precautions. While EPM has a sturdy system, composed of three large reservoirs that feed the 92% of the Aburrá Valley aqueduct system; the company reaffirms its call to the community to make a rational and efficient use of water.

With small everyday actions such as turning off the faucet while showering, washing the dishes or shaving, watering the garden very early or at night to avoid water evaporation, washing the front of the house or the car using the bucket and not the hose, reducing laundering times when using the full load of washing machine, or changing the sanitary facility for a saving one, contribute that among them can continue to enjoy the resource. In addition, it is important to check there are no leaks in the internal network of the house or the company, that the bathrooms do not overflow and that the faucets employ suitable coverings and do not drip.







The water consumption in the Aburrá Valley vary according to the number of members of a family and their practices. For example, just a flush from a bathroom ranges between 15 and 20 litres of water, and when taking a long shower, the expense may amount to 75 litres. The average of historic water consumption of a dwelling in the region is 14 cubic meters per month (m3/month) approximately.

The vital minimum for a person, according to studies, is 2.5 m3/month. Consequently, it is essential to reinforce the behaviors to avoid the application of double payment of the charge for water consumption to the residential users above 28 m3/month, as set forth in the Potable Water and Basic Sanitation Regulation Commission (Comisión de Regulación de Agua Potable y Saneamiento Básico, CRA).

## **EPM** will adopt the option pricing

After the measures announced by the Ministry of Energy and Mines, that are seeking to protect the country from rationing and that it includes the increase in the energy prices to enable the continuous operation of the thermal power park, EPM will adopt the option pricing, which allows to defer month-to-month the increase of prices in order to reduce the impacts on the household economy.

The effects described will be materialized in the rate increases in the following way: on the invoice that the EPM customers/users will receive from January to October 2016; they will see monthly increases of 1.5%, as stated above they are possible due to EPM will make use of the pricing option that allows to differ in the longest period of time the increases and, in this way, minimize the impact on the customer/user rates. EPM assumes the funding associated with this pricing option, which is in the order of COP\$69 billions.

In short, and with these measures, the average rate increase for a user between 2015 and 2016 will be the CPI+5.75% \*. It is worth noting that in the last months of 2016 when the hydrological conditions return to normal, the rates for users are expected to fall. EPM invites its customers/users to counteract the impact on its bill with lower consumption.

\* Estimated CPI of 6%









## It was seen by each stratum the effect of monthly increases shall be as follows:

Stratum	Average invoice per month	Monthly increase*	% monthly increase*
1	COP\$18,100.00	COP\$272	1.5%
2	COP\$28,000.00	COP\$420	1.5%
3	COP\$55,400.00	COP\$831	1.5%
4	COP\$76,900.00	COP\$1,154.00	1.5%
5	COP\$111,100.00	COP\$1,667.00	1.5%
6	COP\$160,200.00	COP\$2.403	1.5%
* Between the invoice received from January to October 2016			

For the non-residential sector of the regulated market (retail sector, small and mediumsized industry and officials) shall also be a monthly increase of 1.5% in kWh-month in the time period already described, but the increase in its bill is variable, depending on consumption in particular of each installation, the voltage level and whether or not is contribution.

The customers/users that are below the subsistence consumption in our market are as follows: 80% in stratum 1, 72% in stratum 2, and 65% in stratum 3. These customers/users today enjoy significant subsidies to consumption, which are applied in the rate and are equivalent to 60%, 50% and 15% respectively. The subsistence consumption is 130 kWh/month for municipalities with heads above the 3,280 ft and 173 kWh/month for municipalities with heads below the 3,280 ft.

Once more the company order is that the customers/users make efficient use of energy and take care of its bill. Remember that the household appliances that employ resistance such as irons, stoves, and ovens are more energy demand. Only an iron consumes 3 KWh within three hours, a hair dryer used every day can consume 6 KWh per month, and a plasma TV of 20 in that turns on six hours a day may require 67.5 KWh/month. The efficient use of lighting in the production sites, business premises and offices are recommended in the non-residential sector facilities. For all sectors are prompted a rational use of Christmas facilities for the holiday season.

It is to be aware at home and in the business, and turn off those devices that are not used. Turn off the bulbs that are not using and prefer the energy-saving bulbs, avoid opening the refrigerator frequently and using pans of the size of the racks.

# Christmas lights, a city project

Christmas lights is a symbol of Medellín. It is a generator of employment, not only for mothers who are head of families and manufacture it in an artisanal manner, but also for









the thousands of people working in associated activities. Each December, the Christmas lights makes Medellín one of the tourist destinations for Colombians and foreigners. Consequently, this is a major facilitator of the region economy, with benefits for the city and its inhabitants, and a promoter of family values, because it invites to explore it together and share it with the beloved ones.

Since 1992, when presented the energy rationing in the country, EPM has developed and improved a Christmas lighting system that optimizes the consumption of electrical energy. The use of monumental figures that are woven with wire mesh, its LED lights and solar panels pilots ensure that its consumption during the 45 days that remain lit is only 0.99 GWh, which is equivalent to one hour of the annual consumption of Medellín. However, to further reduce its consumption this year will be trimmed the lighting in one hour a day, which will run from 6:00 p.m. to 12:00 p.m., between November 28 and January 11, 2016. Thus, the lighting consumption during the same time will decrease 0.8 GWh, which corresponds to 50 minutes of the annual consumption of the city.

After evaluating all circumstances, EPM took the decision to go ahead with Medellín Christmas Lighting and 14 winner municipalities of the contest "Enlighten up the joy" ("Encendamos la alegría"): Arboletes, Caracolí, Cañasgordas, Copacabana, Entrerríos,

Dabeiba, Frontino, Guadalupe, Granada, Guatapé, Peque, Salgar, Santo Domingo y San Pedro de los Milagros, because it is convinced of its responsibility with the millions of people who live in the territories that has a presence within its higher purpose of contributing to the construction of sustainable and competitive territories.

Currently, the assembly is 60% and would be greater the social and economic losses for all regions, in an era in which many families derive their livelihood from the direct and indirect activities associated with the construction, assembly and development of collateral economic, social and cultural activities.

## Economic impact of the El Niño phenomenon in EPM

The critical situation of hydrology has negative effects for the electricity sector and for all citizens. However, alternatives are seeking to avoid a scenario of rationing, for which it is necessary to have the commitment to thermal generators, the national Government and citizens.

Specifically for EPM this event has impact on the EBITDA of the business generation, with an impact estimated in the last quarter of 2015 between COP\$300 billion and COP\$450 billion less, compared to the budgeted value. Meanwhile, an impact of between COP\$200









billion and COP\$300 billion in the EBITDA of the business is expected for the first quarter of 2016.

However, the impact on the results of the generation business, and thanks to its business strategy, EPM has spent significantly several years diversifying its income on businesses and geographies to minimize effects of events such as the El Niño phenomenon in its consolidated results.

In 2015, and thanks to the good performance of the EPM Group business portfolio and the achieved efficiency in costs and expenses, as a result of the transformation program of the company, is achieved to mitigate the impact of the El Niño phenomenon in the business generation and is expected to end the year with a comprehensive result of approximately COP\$1.5 trillion, very similar to that from 2014. Similarly, it is estimated the impact in 2016. Efforts in costs and expenses and the results expected from the business of the Group and its affiliates, will help to estimate in this year's budget a comprehensive result in the same level that is being displayed by 2015.

EPM believes that it is important to carry out a reflection from the electricity sector, with the leadership of the Ministry of Energy and Mines and the participation of the unions, companies in the sector, users, and the industry on the impact of climate change; matrix generation that in the near future the country will need, the policy towards the allocation and availability of natural gas, adjustments to the scheme of reliability charge on aspects such as guarantees of the generating agents, calculation, and adjustment of price of scarcity, and future of the thermal power plants to liquids.

Again the EPM's call is that among all add up efforts to face the El Niño phenomenon. A small action added to other gives as a result millions of actions that will allow to reduce the impacts. From home, school, industry and retail sector, we all contribute to the efficient use of water and energy.

This newsletter contains forward-looking statements, which we warn they are subject to various risks, uncertainties and circumstances relating to the EPM operations and business environments. These factors could cause that the current results differ materially from any future results expressed or implied in such forward-looking statements. Accordingly, EPM cannot guarantee the results or future events. EPM disclaims expressly any obligation to update the forward-looking statements, or any other information contained herein.









#### Information for journalists EPM Group's Corporate Communications

Vice Presidency of Communications and Corporate Relations

Juan José García Villegas | (574) 380 65 62 | 310 823 89 42 | juan.garcia.villegas@epm.com.co

José Ignacio Murillo Arango | (574) 380 44 04 | 300 619 62 85 | jose.murillo@epm.com.co