Energy Monthly News

January, 2021

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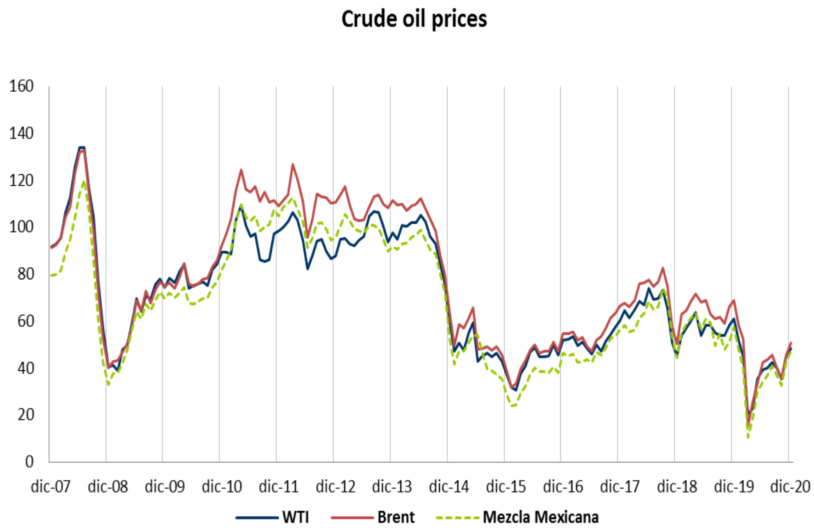
This month in review

** 27/01/2021   **28/01/2021*

Crude oil price MME US/BD	51.66
NG price HH* US/MMBTU	3.04
Mx crude production MMbd - *December*	1.64
Mx NG production MMpcd - *December*	4,836
US crude production MMbd - *October*	10.41

FX Rate**	20.26



Source: EIA. El Reforma, Pemex, Banxico, and CNH

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Oil & Gas - Mexico

Pemex fails to lift output in December, setting stage for 202 – *Bnamericas*

Mexico once again missed its production targets in December, answering some of the questions about whether Pemex would be able to raise its output in order to start 2021 on a better footing than last year.

Instead of raising its output to end the year with output of 1.84Mb/d, as the company had predicted, Mexico's average production reached 1.64Mb/d in December, 1% below the November average and 4.8% below the figure for the same month of 2019. For the entire year, oil production averaged 1.66Mb/d, down from 1.71Mb/d in 2019. In natural gas, Mexico produced 3.97Bf3/d in December and an average of 3.84Bf3/d during the year. This means that 2020 was the weakest year for oil production in over three decades. The country has so far been unable to halt a protracted production decline despite the fact it has often made unrealistic predictions that it will significantly raise its output to meet the ambitions of President AMLO, who made a campaign promise to bring back the glory days for the Mexican oil sector.

Mexico’s oil output has been in steady decline since peaking at almost 3.4Mb/d in 2004. The bulk of production still comes from the major discoveries of the 1990s: the Ku, Maloob and Zaap fields, which account for about 40% of the country’s total production. Pemex’s production strategy hinges on increasing output at its 20 priority fields, most of them shallow water discoveries off the coast of Tabasco state. And while the company managed to churn out 127,700b/d from these fields in September, compared to almost nothing a year earlier, it has lagged on its investment and spudding commitments for those fields, according to the CNH.

Shell begins exploration of Xochicalco -1 EXP well – *Tamaulipas State Gov.*

Shell began its first hydrocarbon exploration campaign off the coast of Tamaulipas on January 18, where it is drilling the Xochicalco-1 EXP exploratory well, located in the Perdido Folded Belt 250 km from Matamoros; these works represent an investment of USD $84.5 million.

Shell's work program foresees 69 days for drilling, whose work will be carried out through the Muralla IV platform of the Tamaulipas company Grupo R. The Xochicalco-1EXP well will be done in sequence together with the Chimalli-1 EXP well located in the AP-PG0P3 contractual area, which will have an investment of about USD $34.9 million and includes a drilling program about 24 days.

These works are carried out in one of the areas awarded to Shell in round 2.4 carried out by the CNH in January 2018. In said round, Shell obtained nine deepwater blocks: 5 contractual areas off the coast of Tamaulipas in the area of the Perdido Folded Belt and 4 in the southeast of the country, in the Salina Basin.

CNH approved Pemex exploration plan to spud Pokche-201 well – *CNH*

CNH approved an authorization request by PEP to spud the Pokche-201 exploration well at the 0151-Uchukil area off the coast of Tabasco state. PEP plans to invest USD $90 million in the project, which will take 243 days to complete in a bid to add 28Mboe of prospective resources.

CNH approved Pantera exploration plan on Rimo-1EXP well field– *CNH*

CNH approved a request by Pantera Exploración y Producción to spud the Rimo-1EXP exploration well in its A8.BG onshore area in Tamaulipas state. The total investment is USD $5.18 million, of which USD $4.05 million will be used to drill the well and USD $1.13 million for completion. Drilling will take 37 days, beginning January 30 and concluding March 8.

CNH approved to Lukoil the work program of the exploration plan– *CNH*

CNH approved an updated 2021 work program presented by Lukoil Upstream México for its A12.CS contract off the coast of Tabasco. The activities to be carried out this year include the administration of project activities and expenses management, pre-processing and reprocessing of seismic data, detailed geological studies, support services, drilling services for the Yoti Oeste-1EXP well, support, pipeline design, resource estimation, reservoir characterization and environmental impact studies.

The program involves a budget of between USD $63.3 million and USD $78.4 million for the area this year.

Mexico approves ambitious plan for Miquetla field – *Bnamericas*

CNH approved an ambitious production plan from Operadora de Campos DWF for the Miquetla field straddling Puebla and Veracruz states.

According to the plan, DWF will invest USD $910 million in the field between this year and 2048, and it also includes USD $672 million in operational expenses. It involves spudding 374 wells, starting with two this year, five in 2022, 15 in 2023, and 20 per year between 2026 and 2041.

DWF expects to extract some 31.89MMb of oil and 68.21Bf3 of natural gas, and produce between 10,000 and 15,000b/d of oil at the field's peak production. CNH pointed out that the specific characteristics of the concession area require an aggressive spudding strategy in order to get good results. The concession area is operated by DWF with a 51% participation. The remainder is owned by PEP.

Petronas takes Pacific drillship for Mexico well – *Offshore Energy*

Offshore drilling contractor Pacific Drilling has secured a contract for its drillship with Malaysian giant Petronas for operations offshore Mexico. The assignment of Pacific Khamsin drillship to Total for Equinor's second firm well was completed in November 2020.

Pacific Khamsin drilled the Monument exploration well in the U.S. Gulf of Mexico for Equinor and found approximately 200 feet of net oil pay with good reservoir characteristics in Paleogene sandstone. The discovery was announced in April 2020. The Pacific Khamsin drillship has also now been awarded a contract for one firm well by Petronas with two priced option wells and two additional option wells at market rates.

The contract with Petronas is scheduled to start in 3Q 2021 and complete in 4Q 2021. The day rate is $192,000. Pacific noted that the contractual day rate for firm well is inclusive of the lump-sum mobilization fee amortized over the firm contract period.

Pacific Drilling has recently completed its balance-sheet restructuring and emerged from the Chapter 11 process. After emergence, the reorganized version of Pacific Drilling now operates with a substantially de-levered capital structure, due to the elimination of more than $1 billion of funded debt obligations under the plan.

CNH approved a modification to Jaguar's exploration plan – *CNH*

CNH approved a modification to Jaguar Exploración y Producción's exploration plan for its VC-03 onshore contract in Veracruz state. Under the update, Jaguar plans to invest between USD $24.3 million in a base scenario and USD $31.6 million in an incremental scenario to spud up to four wells and conduct exploratory studies and 3D seismic.

CNH approved the work program of the exploration plan to Total – *CNH*

CNH apporved the 2021 work program presented by Total México for the AS-CS-06 area, off the coast of Tabasco state. The firm expects to invest USD $18.3 million this year to spud one exploratory well and conduct other exploration.

Outgoing U.S. officials slam Mexican energy policy for bias – *Reuters*

A letter signed by three of outgoing President Donald Trump's top officials sharply criticizes the Mexican government's energy policies for what it describes as damaging the "investment climate" in the country due to bias against private companies.

The letter is addressed to three Mexican ministers, including Energy Minister Rocio Nahle, and warns that actions taken by the government of President Andres Manuel Lopez Obrador could threaten hundreds of millions of dollars in investments in the sector by U.S. government lenders. The letter is signed by the U.S. Secretary of State, as well as the country's commerce and energy secretaries.

Mexico's Pemex, Talos to keep talking over major shared oil find – *Reuters*

Mexico's energy ministry has approved a 60-day extension for talks between state oil company Pemex and a private consortium led by U.S.-based Talos Energy Inc over the future of a massive shared crude deposit.

The country's energy ministry has agreed to let the parties continue negotiating through March 25, which would determine who runs the potentially lucrative project as well as a preliminary split of the reservoir, among other development details. "Continuing talks with Pemex during the extended period represents the clearest and fastest route towards expedited first oil, which benefits all parties involved, including the government of Mexico," said Duncan. The other members of the consortium are Germany's Wintershall Dea and Britain's Premier Oil.

Zama was discovered by Talos three years ago and is estimated to hold nearly 700 million barrels of oil in the Gulf of Mexico, due north of the Tabasco state coast. Pemex claims more than half of Zama lies in its neighboring block, but only Talos has drilled several wells to confirm the contours of the reservoir, which in 2017 became the first major find by a private or foreign oil company since the previous government ended a 75-year-old state monopoly on exploration.

According to an engineering study from the technical oil consulting firm Netherland, Sewell & Associates, Talos' block holds 60% of the reservoir, while Pemex's holds 40%. While unification agreements are common in the international oil industry, the talks over Zama mark the first time such a high-stakes deal is being negotiated in Mexico.

Braskem Idesa starting int'l arbitrage process against Pemex – *Bnamericas*

In the latest twist in the ongoing spat involving the Mexican government, NOC Pemex and Braskem Idesa regarding the Etileno XXI polyethylene complex in Veracruz state, the Mexican-Brazilian firm has started an international arbitrage process in Paris.

According to local press reports, Pemex CEO Octavio Romero Oropeza was notified that Braskem-Idesa had activated a clause of its ethane supply contract with Mexican company that would allow disputes to be resolved by the International Chamber of Commerce. The contract, signed back in 2010, specified that Pemex would sell 66,000b/d of ethane to the private player at a discounted price.

However, Pemex has been unable to comply with the contract recently and as of September last year had accrued a debt of USD $64 million in unpaid notes to Braskem for failing to meet its obligations. Both companies have been in negotiations for months regarding the supply agreement, with Pemex and the Mexican government pushing for updated terms. However, as late as November Braskem was confident its access to ethane supply was not in jeopardy.

The conflict escalated in early December, when CENAGAS decided to cut off services to transport natural gas supplied by Pemex to the complex. The decision forced Braskem Idesa to temporarily shut down the plant's operations. Mexican President AMLO later said natural gas supply had been cut because Braskem Idesa had refused to change the terms of the ethane supply agreement.

It later partially resumed operations using an "experimental business model," although it clarified this did not allow the plant to operate at full capacity. Under normal circumstances, Etileno XXI produces up to 750,000t/y of high-density and 300,000t/y of low-density polyethylene.

Mexico ruling on Zama unitization to be crucial decision in 2021– *NGI*

Extract from an interview to George Baker, Managing Principal of Baker & Associates

NGI: In your opinion, what has been the biggest story in the Mexican energy industry in 2020, and what will be the biggest stories in 2021?

Baker: Let's look to the future first. On the oil side, 2021 needs to see a workable regulatory framework for access by third-party investors to Pemex's midstream infrastructure. Next year needs to see a final investment decision for the Zama prospect and other shallow-water prospects.

A final investment decision for the Trion prospect, which would be Mexico's first deepwater reservoir to be sanctioned for full development, will require a few more years. Unlike most shallow-water blocks (Zama excepted) which need access to Pemex infrastructure, for Trion and others in deepwater areas access is not an issue, as there is no infrastructure at all.

As for 2020, the energy issue that we paid the most attention to was the Zama case. The biggest oil discovery in a generation was made by Talos Energy in 2017 yet, to date, a final investment decision has not been reached and Talos has not received regulatory approval to proceed with its development plan. At this point, had work proceeded as imagined, the reservoir should already be in the production stage.

NGI: How do you see the negotiations going between Talos and Pemex?

Baker: Negotiations have been going on for over two years. The sticking points that have prevented agreement are not known to the public, but they go far beyond the question of who gets how much of the ownership of the license. We guess that the two sides are stuck over redetermination, that is, the frequency and methods by which relative ownership of oil and gas from the field would be recalculated in the future.

NGI: What about the issue of who will be the operator of a future unitized area?

Baker: Only Talos has a corporate model of cutting costs whenever possible, assuring a lean development program. It would be a betrayal of the energy reform for Talos to have made a discovery only for the State to award operatorship to Pemex, especially so because Pemex has chosen not to drill a confirmatory well (Asab-1) on its side of the license line.

Hopefully, the Energy Ministry and the Hydrocarbons Commission will turn back what might be called Pemex's "imperialistic aspirations." The situation is especially awkward as the person who is the minister of energy is simultaneously the chair of Pemex's board of directors. It's a conflict of interest that we have flagged in our reports going back to 2006. An industry source believes that as a result of these bureaucratic delays, Talos has forfeited $1.5 billion in revenue. So, the Zama case is very important in our eyes and in the eyes of all oil investors, international and domestic, because of the precedents that will be set when the state oil company wants a share of production.

What alarms investors is the scenario that Pemex, by geological rumor and speculation, but without drilling a confirmatory well, successfully claims a share of a license and the revenue from the oil discoveries of third parties.

NGI: For readers maybe not familiar with the history of the Zama case, how did Mexico end up in this situation?

Baker: We should dig into the history of the block's eastern boundary, asking the question: How is it that a lease line, for the first auction in Mexican history, is drawn through the middle of a potentially petroleum-bearing structure? How did that happen and how did the Energy Ministry decide to configure the field as they did?

Power/Renewable Energy – Mexico

Mexico's CFE ups 2021 investments, postpones renewables plans – *Bnamericas*

Mexico’s electric power utility CFE is planning to invest $62.8bn pesos (USD $3.12bn) this year in a bid to overhaul its generation capacity. The figure is 20% higher than last year, when CFE invested 52bn pesos, according to the public sector firm’s updated 2021-2025 business plan.

The plan includes total investments of approximately $330bn pesos.

In 2022, CFE plans to invest around $101bn pesos in order to build a series of power plants and ramp up distribution investments. While the plan mentions the firm's recently announced foray into non-conventional renewables - a new venture for a utility that has historically focused on thermal and hydroelectric generation - it does not include any concrete solar or wind projects.

The plan does mention that a number of unspecified projects are expected to enter operations in 2027, which would put their construction starting dates at around 2025-2026.

CFE had earlier suggested that it was considering including 500MW of clean energy projects slated for 2025 or earlier. In terms of combined cycle projects, CFE offered an updated timetable on several units. For this year, the firm expects to complete a series of portable natural gas units in the state of Baja California. In 2023 it plans to conclude two combined cycle units, one with 752MW capacity in Riviera Maya in Yucatán state and another with 459MW capacity in González Ortega, in Baja California, with construction expected to begin in August.

Four projects are planned for 2024: a US$535mn, 460MW unit in San Luis Río Colorado in the state of Sonora; a USD $214mn, 164MW unit in Baja California Sur state; a 500MW unit in Mérida, Yucatán, and the first phase of the 1GW Adolfo López Mateos plant in Tuxpan, Veracruz state. CFE’s remaining large-scale projects fall outside the scope of the business plan. Two of them, a new unit at the Presidente Juárez generation complex in Baja California and maintenance work at the Francisco Pérez Ríos thermal unit in Hidalgo state, were slated for 2026.

The fourth unit of the Norte generation complex in the state of Chihuahua, as well as the fourth unit of the Cerro Prieto generation complex in Baja California and maintenance work at the Salamanca thermal unit in Guanajuato state, will be finished in 2027.

Meanwhile, CFE said it would undertake 142 transmission projects over the next five years, including new lines, substations and other equipment, as well as 33 maintenance programs for existing infrastructure. In the area of distribution, the company plans to bring forth 100 projects, which include expanding existing assets and building new ones.

Chihuahua moves toward renewable energy – *Business Mexico News*

The Director of Energy of the Ministry of Innovation and Economic Development in Chihuahua, Jorge López Uranga, reported that the state currently has 10 photovoltaic parks in operation where the state government has invested around USD $1 billion. Additionally, there are 14 solar and wind projects currently in construction.

The development of the solar energy sector at the national level has represented USD $8.85 billion in direct investment and has generated more than 65,000 jobs throughout the value chain. These investments have been achieved through Distributed Solar Generation (DSG), also known as solar roofs. Nuevo Leon, State of Mexico, Chihuahua, Mexico City and Jalisco are the entities with the largest DSG installed capacity.

The first solar park in Chihuahua was constructed in 2014 and since then, the state has developed 10 additional parks. Moreover, Chihuahua has solar farms in the municipalities of Ahumada, Camargo, Jimenez, Ascension, Galeana and Juarez, which deliver energy to CFE and other larger consumers in the electricity market. According to the Chihuahua government, the symmetry of its fields and the weather allow a better generation of solar energy.
Uranga said that renewable energies are essential to comply with international environmental agreements and to increase the national energy security. Currently, there are 13 solar and one wind projects that are in the development stage. The government expects that the solar projects in Villa Ahumada, Juarez, Guerrero, Cuauhtemoc, Galeana and Delicias will generate 2,000MW, reported El Diario de Chihuahua.

Uranga said that this year, the construction of the 30MW solar project in the municipality of Cuauhtemoc will commence. The government is still discussing its construction and expects it to be completed in 2023. Meanwhile, the wind project will have a potential of 300MW in the municipality of Nuevo Casas Grandes and is currently in the planning and development stage.

Oil & Gas - LATAM

Shell to join offshore Argentina block– *Rigzone*

Equinor and YPF have agreed to jointly farm-down a nearly one-third non-operated stake in the CAN 100 block offshore Argentina to Shell, Equinor reported.

The largest block in the North Argentinian Basin, CAN 100 encompasses 5,792 square miles (15,000 square kilometers). Equinor and YPF each own 50% equity in the license, Equinor noted in a written statement emailed to Rigzone. Pending government approval, Equinor and YPF would each own 35%t and Shell would hold the remaining 30%. Equinor noted that it farmed in to the YPF CAN 100 block in Oct. 2019 and agreed to operate it. The company states that its offshore Argentina acreage consists of eight blocks across various basins and plays. Moreover, Equinor holds unconventional onshore assets in Argentina's Vaca Muerta formation and Neuquen basin. Shell's upstream operations in Argentina include blocks in the Vaca Muerta.

Ecopetrol sells 50% share in Offshore International Group – *Reuters*

Colombia's majority state-owned oil company Ecopetrol has sold its 50% stake in Offshore International Group (OIG) via a share purchase agreement with a subsidiary of De Jong Capital LLC. The divestment follows a successful bidding process carried out by Ecopetrol and its partner Korea National Oil Corporation with a number of offers being made, the company said in a statement.

Following the purchase, De Jong Capital LLC will hold 100% of OIG's share capital, Ecopetrol said. OIG is the parent company of Savia (Peru), as well as a number of other companies in Peru and the United States. The value of the deal was not disclosed. The transaction forms part of Ecopetrol's plan for divesting non-strategic assets and follows the company's priorities of strict capital discipline, protection of cash, cost efficiency, and profitable growth.

Petrobras sets fresh annual oil and gas production record in 2020 – *S&P Global Platts*

Petrobras set a fresh record for annual output in 2020 on better-than-expected performance at the Buzios Field and improved corrosion-treatment efforts at its subsalt fields. "The records demonstrate good operational performance despite the challenging scenario of 2020, with greater focus on world-class assets in deep and ultra-deep waters where Petrobras has displayed a large competitive advantage.

Petrobras pumped an average of 2.28 million b/d in 2020, beating the previous record of 2.23 million b/d set in 2015, the company said. Total oil and natural gas output also reached a record 2.84 million b/d of oil equivalent, which topped the previous record of 2.79 million boe/d also set in 2015, according to Petrobras. The production record was a slight surprise given downward revisions the company made to its production forecast in the wake of coronavirus-related field shutdowns and output lost to asset sales. Petrobras had expected to end 2020 with oil production at 2.2 million b/d and total hydrocarbons output of 2.7 million boe/d.

The 2020 production record should be tough to beat, with Petrobras planning to shed an additional 600,000 b/d with the sale of fields, such as Albacora, Marlim, and most of the company's legacy onshore and shallow-water fields. Petrobras expects oil output to fall to 2.23 million b/d in 2021, with total hydrocarbons production also sinking to 2.75 million boe/d, according to the company's 2021-25 investment plan.

While Petrobras may be losing production with the divestment program, the quality of the company's output is climbing. That is because a greater share of Petrobras' production mix is coming from subsalt fields, which produce light oil that naturally contains low volumes of pollutants like sulfur. Subsalt fields produced 1.86 million boe/d in 2020, accounting for 66% of Petrobras' total production, the company said. Subsalt fields represented just 24% of output in 2015, when the previous records were set, according to the company.

The Buzios Field, which pumped first oil in April 2018, was a major driver of output growth. Petrobras made efficiency improvements that allowed the four floating production, storage and offloading vessels at the field to produce above their installed nominal capacity of 150,000 b/d, according to the company. Petrobras also registered slower rates of decline at the Tupi and Sapinhoa fields, further demonstrating the robust productivity of the region's wells. Tupi, Buzios and Sapinhoa are Brazil's top-three production fields.

CNPE approves 92 offshore blocks for 17th bidding round – *S&P Global Platts*

The National Energy Policy Council, or CNPE, approved 92 offshore exploration and production concession blocks for sale at the country’s pandemic-delayed 17th bidding round slated for October.

“There will be 92 blocks offered in the offshore sedimentary basins of Potiguar, Campos, Santos and Pelotas,” the ANP said in a statement. The blocks cover 53,900 square kilometers, according to the agency. ANP will hold a public hearing to discuss the auction rules and concession contract on February 3, with the public bidding round scheduled for October 7.

The approval of the blocks followed a decision by CNPE on December 11 to remove 32 offshore blocks from the round because of environmental concerns that have caused issues with drilling permits in other blocks in the area. That included denials to drill in the Para-Maranhao and Foz do Amazonas basins along Brazil's equatorial margin, which caused industry heavyweights such as BP Energy and Total to bail out of the promising area. The CNPE removed eight blocks in the Para-Maranhao Basin and 24 blocks in the Pelotas Basin from the 17th bidding round in the December move.

Several of the blocks were expected to generate heated competition despite the environmental concerns, because of the potential for holding deepwater deposits similar to ExxonMobil's Stabroek block discoveries off the coast of Guyana. The US heavyweight has made 18 discoveries and pumped first oil from the block in December 2019. The Stabroek block is estimated to hold more than 8 billion barrels of oil equivalent in recoverable reserves. The same play is believed to extend along Brazil's northern coast in the Foz do Amazonas and Para-Maranhao basins, according to geologists.

The latest changes to the 17th bid round lineup also included the consolidation of six blocks in the ultra-deepwater portion of the Santos Basin down to two blocks, the ANP said. The S-M-1613 and S-M-1615 blocks will now be wrapped into the S-M-1613 block, while the S-M-1617, S-M-1619, S-M-1729 and S-M-1731 blocks were consolidated into the S-M-1617 block.

The consolidation will expand the size of the blocks available and potentially make them more attractive to potential investors, especially in frontier areas without a long history of exploration and production such as the southern Santos Basin. The 17th bidding round will also be the first to include blocks beyond Brazil's 200 nautical mile Exclusive Economic Zone, which was approved by the CNPE in February 2020. The blocks hold subsalt potential and are located on the southern fringe of the subsalt polygon that requires production-sharing contracts for development. The areas, however, will be sold under the more-favorable concession contract that requires oil companies to pay royalties on output rather than guarantee the government a share of profit-oil production.

Ecopetrol Group will have 8 solar parks in 2021 – *Ecopetrol Press Release*

The Ecopetrol Group will develop six new photovoltaic projects that will boost the country's energy transition and that will be added to the two solar megaparks San Fernando and Castilla, located in the municipality of Castilla La Nueva, in the department of Meta, to complete a total of eight projects of this type by 2021.

The announcement was made by the Company in the course of a visit by the President of the Republic Iván Duque Márquez to the municipality of Castilla La Nueva, where the construction of the San Fernando solar park is progressing, which will be ready in the first half of the year and will become in the largest self-generation center in Colombia and one of the most modern and innovative in the region. "The new solar parks represent a great advance in our energy transition plan, which contemplates having an installed renewable energy capacity of around 400 MW by 2023. Our goal is to promote a sustainable and reliable energy future for Colombia, and contribute to the goal of the National Government of reducing 51% of greenhouse gas emissions in the country by 2030 ", said the President of Ecopetrol, Felipe Bayón.

The six new parks will have an installed energy capacity of more than 45 Megawatts (MW), which is equivalent to powering a town with 49,000 inhabitants, and will be distributed as follows: Meta Department: 14 MW in the Ocelote ecopark, located in the field that bears the same name and operated by Hocol (a subsidiary of Ecopetrol), in the municipality of Puerto Gaitán.
Department of Huila: 25 MW in the Brisas, Yaguará and Aipe ecoparks, located in the municipalities of Yaguará and Aipe. Departments of Antioquia and Bolívar: 6 MW in the Del Río and Magdalena ecoparks, located in the Casabe and Cantagallo fields, in the municipalities of Yondó and Cantagallo.
The projects will be developed under a 15-year energy supply contract, with the objective of self-supplying part of the energy demand of Ecopetrol and Hocol operations in these areas of the country.

Construction will begin in the first half of 2021 and, according to the defined schedule; they would come into operation in December of this year. The works will be carried out on approximately 45 hectares, corresponding to a total of 90 soccer fields.