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FEATURED Q&A

Will a Vaca Muerta-Brazil Gas Pipeline Become a Reality?

Brazil and Argentina are in talks to construct a pipeline that would transport gas from Argentina's Vaca Muerta formation (pictured) to Brazil's southern region. // File Photo: Argentine Government.

Q Brazil is in talks with Argentina to construct a billion-dollar pipeline connecting southern Brazil's gas distribution network to Argentina's massive Vaca Muerta shale oil and gas formation, Brazilian President Jair Bolsonaro said in August. Experts have estimated that building the pipeline could cost around $3.7 billion for Argentina and $1.2 billion for Brazil's section, Reuters reported. How likely is the pipeline to become a reality, and what needs to happen for it to be built? What would be the pipeline's main benefits and drawbacks, and what would each country gain from it? What are the major hurdles that the project faces, including financing and environmental opposition?

A Cleveland Jones, professor and researcher at the National Institute of Oil and Gas at the State University of Rio de Janeiro: "A natural gas integration of Latin America's Southern Cone never succeeded, mostly due to the lack of trust between countries potentially interested in such an integration. Historically, such distrust has been well founded. Even before the 2000s, Brazil and Argentina missed the opportunity to implement a corridor for export of Argentine gas to Brazil. When the Gasbol pipeline delivering Bolivian gas to Brazil began operation, the significant contracted volumes dissuaded further integration efforts, despite complementary opportunities between Argentina, Brazil, Bolivia, Uruguay and Chile, and even export opportunities from the Pacific or Brazilian ports. In the 2000s, projects to bring gas from Argentina to Brazil again faltered due to the lack of

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TOP NEWS

OIL & GAS

Pemex's Dos Bocas Refinery About a Third Done

Mexican state oil company Pemex's new refinery in Dos Bocas is about a one-third done, with the government investing just half of the initial project budget, according to a government report.

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POWER SECTOR

Brazil Increases Power Prices by 7% Amid Drought

Brazil's government hiked electricity prices by an average of 7 percent as the country's worst drought in almost a century squeezes hydropower generation and threatens supply.

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OIL & GAS

CNPC Looking to Restart Output in Venezuela: Report

The China National Petroleum Corporation is reportedly preparing to revamp operations in Venezuela after the government of President Nicolás Maduro finalizes legislation aimed at attracting foreign investment.

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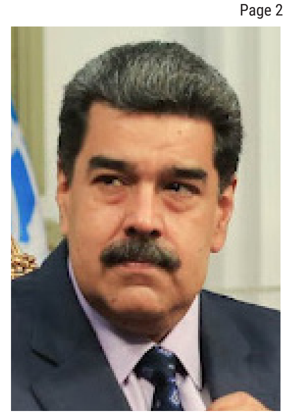

Maduro // File Photo: Venezuelan Government.

OIL AND GAS NEWS

CNPC Looking to Restart Output in Venezuela: Report

The China National Petroleum Corporation, or CNPC, is preparing to revamp operations in Venezuela after the government of President Nicolás Maduro finalizes legislation aimed at attracting foreign investment into the country, Bloomberg News reported last week, citing unnamed sources familiar with the matter. China's largest oil producer, state-owned CNPC was once a top investor in the Andean nation, where it is now sending engineers and commercial staff, the sources said. The company is also looking at local firms to start maintenance work at an oil-blending facility it operates alongside Venezuelan state oil company PDVSA, as well as contacting local service providers with an eye toward increasing production of oil at five other ventures with the Venezuelan company, the sources added. CNPC and PDVSA did not respond to Bloomberg News' request for comment. CNPC's moves signal growing interest in a comeback to Venezuela, though more concrete steps such as signing procurement or service contracts with local firms have yet to be announced, according to the report. U.S. sanctions on Venezuela's oil sector could still be a hurdle. Maduro's government is reportedly seeking an end to U.S. sanctions on PDVSA in talks with opposition representatives, whose first round of dialogue took place last weekend in Mexico City. Though the administration of U.S. President Joe Biden has signaled it is open to reviewing its Venezuela policy, some energy experts doubt it would lead to a total reversal in its sanctions regime anytime soon. "We believe that more complex sanctions, including on PDVSA, will remain in place for a long time, and will be removed only when there are real and tangible changes in Venezuelan politics," Antero Alvarado, managing partner and Venezuela director at Gas Energy Latin America, told the Energy Advisor in a **Q&A** published Aug. 6. "The maintenance of sanctions until political change is achieved, which can take several years, raises uncertainty [for foreign companies operating in Venezuela] regarding the continuation of existing and future projects," he added.

Dos Bocas Refinery About a Third-Done at Half the Budget

Mexican state oil company Pemex's new refinery in Dos Bocas, in Tabasco state, is about one-third done, with the government investing just half of the initial project budget, according to the administration's third annual report, published last week, Argus Media reported. The 340,000 barrel-per-day (bpd) refinery has been one of President Andrés Manuel López Obrador's flagship projects as part of his goal of strengthening the state oil firm and making Mexico self-sufficient in fuel supply. "The estimated initial cost of the project was $8.92 billion and $4.72 billion has been spent as of June 2021," according to the annual report. After two years of work, about 33 percent of the project had been completed as of the end of June, the report added. The refinery is scheduled to begin operations by mid-2022. Critics have previously warned that the refinery's cost is likely to surpass the estimated budget, but López Obrador has insisted it will be done within budget and on time, according to the report. In the 2022 budget, which the ministry of finance is scheduled to present to Congress this week, the government budgeted an additional $2.45 million to execute the pending phases of the project, El Universal reported. In related news, the Mexican government recently announced Pemex would buy Royal Dutch Shell's majority stake in the Deer Park refinery in Texas, Bloomberg News reported. The facility registered a net loss of about $360 million this year as it was forced to shut down during a cold front in mid-February, according to people with knowledge of the situation. The Deer Park refinery's debt has also surpassed $1 billion in recent months, the sources added. Pemex didn't respond to the news service's request for comment. In May, Pemex CEO Octavio Romero

NEWS BRIEFS

107 Firms Express Interest in Colombia's Third Renewables Tender

More than 100 companies sought pre-qualification for Colombia's third renewable energy auction, according to grid operator XM Compañía de Expertos en Mercados, which is organizing the tender, Renewables Now reported last week. Of the 107 firms seeking pre-qualification, 55 companies have registered as off-takers and 52 are looking to sell power from nonconventional renewable energy sources, according to the report. The tender is scheduled for Oct. 26. In the country's last renewables auction, 39 electricity producers and 29 off-takers registered to participate.

Guyana Selects ATL to Market Share of Crude

Guyana has selected state-controlled Saudi Aramco's London-based trading subsidiary, ATL, to market the South American nation's one-million-barrel share of crude, the natural resources ministry said, Argus Media reported Sunday. ATL was among 15 bidders in the tender to market Guyana's slate of light sweet Liza grade. The cargo is scheduled for loading on Sept. 21 and 22. Other companies that submitted bids included Royal Dutch Shell, Chevron, Hess and Equinor, as well as traders Gunvor and Glencore, according to the report.

Brazil's Eneva, EDF Sign Renewables PPA

Brazilian natural gas and power company Eneva and France's EDF Renewables have signed a 15-year contract for the purchase of renewable energy in the South American nation, Renewables Now reported Monday. Under the power purchase agreement, or PPA, Eneva can now operate in Brazil's free energy market with renewable energy sources. Neither the value of the deal nor the exact amount of energy to be supplied were disclosed.

said Deer Park, a joint venture between Pemex and Shell, has traditionally posted profits. He added that, as of May, the facility had $980 million in debt.

POWER SECTOR NEWS

Brazil Hikes Power Prices by an Average of 7% Amid Drought

Brazil's government last week hiked electricity prices by an average of 7 percent as the country's worst drought in almost a century squeezes hydroelectric production and threatens power supply, Agence France-Presse reported. The country's key dams, crucial to hydropower generation, are at near-record lows, with less than a quarter full. The increase in electricity prices is meant to partially cover the cost of backup power plants and energy imports. Among the measures the government is taking to avoid power supply shortages is starting operations at a biomass power station as well as three photovoltaic generators and four wind farms, AFP reported. The Brazilian government has also been calling on Brazilians to "turn off the lights at home." "We are [at] the limit of the limit," President Jair Bolsonaro has said, the wire service reported. Energy Minister Bento Albuquerque last week also urged Brazilians to reduce electricity consumption. "Take advantage of the natural light, and preferably leave hot showers, air conditioning and ironing for the mornings and weekends," he said on Aug. 31 during a televised address, El País reported. The administration has also vowed to cut its own electricity consumption. The electricity price hikes have contributed to rising inflation, which reached 8.99 percent on an annual basis in July, almost three times the central bank's target for 2021. Electric grid operator ONS has also said the country's water levels are likely to continue to deteriorate in September, with the National Water and Sanitation Agency declaring a "critical shortage of water resources" until November. [Editor's note: See related **Q&A** in the May 28 issue of the Energy Advisor.]

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long-term reciprocal commitments from the two countries, and then dwindling supplies in Argentina. Today, while Brazilian gas demand is projected to rise, and Argentina's Vaca Muerta production is expected to increase, nothing suggests that the two countries are ready to develop sufficient trust and long-term commitments to allow such a project to become operational in the near future. Furthermore, despite Vaca Muerta's vast unconventional gas resource base, significant surplus supplies for export depend on energy policy in Argentina, which has not provided sufficient confidence in its pricing and export licensing policy. Unfortunately, this is a case of a fundamentally sound proposal, with an uncertain future. Moreover, new players operating in Brazilian pre-salt fields are finally considering bringing large gas supplies from those fields to Brazilian demand centers, which could make integration projects less urgent."

A **Tomás Lanardonne, partner and manager of the Neuquén office of Martínez de Hoz & Rueda in Argentina:** "I believe that the fundamentals underlying this project have never been clearer. Brazil currently imports expensive LNG (3.3 billion cubic meters (cm) in 2020) that can be substituted with cheaper Argentine shale gas, and it has amended the Gas Act to foster the installment of new domestic pipeline capacity by the private sector (including the pipeline connection between Uruguaiana and Porto Alegre). From the Argentine side, producers can significantly increase their export-oriented gas production in a very short period, and the 270-mile 'Aldea Brasilera-Uruguaiana' export pipeline has vacant capacity (10 million cm/day). Having said that, the project would need a treaty between Brazil and Argentina setting the special legal framework applicable to gas export to Brazil, including 1.) firm gas export permits (noninterruptible in case of sporadic domestic shortage in Argentina); 2.) zero export taxes (which in 2008 soared to $17 per million metric British Thermal Units when YPF exported to AES); and 3.) firm transportation contracts (back in 2018, Transportadora Gas del Mercosur had to interrupt shipments to Brazil due to Argentine orders). It's a win-win. Brazil would pay lower prices for gas (Vaca Muerta's shale gas is naturally cheaper than LNG), and it would strengthen its security of supply, particularly in drought seasons (such as in 2000, 2008 and 2021). Argentina would monetize its shale gas endowment, bring hard currency to its central bank and create jobs (in upstream and midstream sectors). The major hurdle relates to the legal framework, which is the basis for reducing the financial cost and providing confidence to environmentalists. I strongly suggest that Argentina and Brazil provide the legal grounds of this project through a comprehensive and self-fulfilling international treaty."

A **Ildo Luís Sauer, deputy director of the Institute of Energy and Environment at the University of São Paulo:** "This initiative has little chance to advance, for several reasons: 1.) Brazil's huge pre-salt oil resources have a high gas-oil ratio, and oil production requires an adequate destination of associated natural gas; 2.) the highest expected demand for gas in Brazil is likely to be near the shoreline, where the most dynamic economic centers are located, thus much closer to the pre-salt region than Vaca Muerta. This requires much lower logistics, and thus lower costs, of infrastructure to transport gas, a significant competitive edge; and 3.) despite two legislation initiatives over the last 15 years, the regulatory framework in Brazil lacks adequate and realistic features to deal with risks and incentives, to attract the required transport investments and to develop the market, both for domestic and imported natural gas. Of course, there will be environmental opposition to the development of the Argentina-Brazil pipeline, but that would not pose an insurmountable hurdle. The main

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RENEWABLES NEWS

Portugal's EDP to Develop Green H2 Project in Brazil

Portuguese utility EDP is planning to develop a green hydrogen pilot project at Brazil's Pecem port complex, which has recently emerged as a hub for the new technology, Argus Media reported last week. The $8.1 million pilot project, expected to begin operations in late 2022, seeks to test the economic viability of similar plants in the northeastern region of the country. The project includes a 3-megawatt solar plant to power a modular electroylzer with hydrogen production capacity of 250 cubic meters per hour, according to the report. International firms including White Martins, French renewables company Qair and Australia's Enegix Energy and Fortescue Future Industries have already committed to investment for hydrogen projects in Pecem, with a total of almost $20 billion already committed, Argus Media reported. "Brazil is well positioned to develop a green hydrogen industry for domestic consumption and export," Ana Karina Souza, partner at Machado Meyer Advogados, and Jorge Kamine, partner at Willkie Farr & Gallagher, told the Energy Advisor in a Q&A published March 19. "While it may take several years to reach fruition and come after the expansion of the natural gas sector, government policies are generating momentum for the development of this industry," they added.

POLITICAL NEWS

Salvadoran Justices Allow Consecutive Presidential Terms

El Salvador's Supreme Court ruled late Friday night that the country's president can seek immediate re-election, a move that opposition politicians, human rights organizations and the U.S. government criticized as contrary to El Salvador's constitution, CNN reported. The decision was delivered by justices whom the ruling party-dominated Legislative Assembly appointed in May, after the assembly removed the Supreme Court's constitutional chamber magistrates and dismissed the attorney general. The Supreme Court's decision to allow

ADVISOR Q&A

Will Auto Content Rules Lead to a Revised USMCA?

Q Mexico's government on Aug. 20 requested formal consultations with the United States related to how content rules for auto parts are interpreted and applied under the USMCA trade deal. The request followed talks last May about the USMCA, in which Mexico voiced disagreement over the issue in a meeting with U.S. and Canadian representatives. What is at the root of Mexico's disagreement over the auto content rules, and what does it mean in practice for auto manufacturers in the three countries? How is the dispute likely to be resolved? Will the issue require modifications to the USMCA?

A Luz María de la Mora, Mexico's undersecretary for foreign trade: "Mexico is concerned about the correct interpretation and implementation of USMCA rules of origin in the auto sector. After many conversations at all levels, it is clear that the Mexican and the U.S. government do not share the same interpretation on the methodology for calculating the regional value content for vehicles. This is a key issue as this disagreement may have a severe impact on the industry's competitiveness, investments and jobs in North America. It is undeniable that the USMCA automotive regime provides more complex and restrictive rules of origin for the automotive sector than NAFTA. However, the USMCA includes flexibilities to allow industries to maintain their competitiveness. The U.S. government should respect those flexibilities as was agreed by the three USMCA parties. Such flexibilities reflect the right balance reached during the negotiation. Mexico considers that U.S. interpretation undermines the competitiveness of the Mexican auto industry as well as of the entire North America region. As a consequence of the divergent interpretations, on Aug. 20, Mexico requested consultations to the United States under USMCA Chapter 31. Mexico aims to find the proper solution for the auto manufacturing sector. This will allow the sector to comply with the appropriate regional value content for vehicles to enjoy preferential access. This consultation process is meant to amicably solve the issue without having to recourse to the dispute settlement mechanism provided by the USMCA. Mexico is confident that the long-standing trade partnership with United States and Canada will continue to develop on the basis of mutual respect, open dialogue, friendship, fair trade and compliance with our international commitments."

"This disagreement may have a severe impact on the industry's competitiveness..."
— Luz María de la Mora

EDITOR'S NOTE: More commentary on this topic appears in the Q&A of Tuesday's issue of the Latin America Advisor.

NEWS BRIEFS

Cape Verde Court Allows Extradition of Maduro Ally to U.S.

A court in Cape Verde ruled on Tuesday that Colombian businessman Alex Saab, who is close to Venezuelan President Nicolás Maduro and who was arrested last year in the West African nation, can be extradited to the United States on money laundering charges, the Associated Press reported. Cape Verde's Constitutional Court unanimously rejected Saab's appeal, which was filed after another African court approved his extradition five months ago. It was not immediately clear when Saab might be transferred to the United States.

Haiti's Government Publishes Draft of New Constitution

Haiti on Wednesday published a draft of a new constitution, with Prime Minister Ariel Henry pushing for a reform as the country continues to face myriad crises following the assassination of President Jovenel Moïse in July and back-to-back natural disasters last month, Agence France Presse reported. Among the changes, the new constitution would eliminate the position of prime minister and create a vice presidency. The charter would also strengthen the powers of the president.

Mexico Unveils 2022 Budget That Eases Some Austerity Measures

Mexico's new finance minister, Rogelio Ramírez de la O, has proposed a slight easing of President Andrés Manuel López Obrador's austerity measures, with a less conservative budget for next year, Bloomberg News reported. López Obrador maintained tight austerity measures even during the Covid-19 pandemic. However, the new budget foresees a general deficit of 3.1 percent next year, up from 2.4 percent in the preliminary budget submitted in March.

presidential re-election would let President Nayib Bukele run for re-election in 2024, CNN reported. Óscar Ortiz, general secretary of the Farabundo Martí Front for National Liberation and a former Salvadoran vice president, blasted the decision. "The dictatorship is consummated," he wrote in a posting on Twitter. Jean Manes, the U.S. chargé d'affaires in El Salvador, told reporters Saturday that allowing consecutive presidential terms was "clearly contrary to the Salvadoran constitution." In a brief statement on Saturday, El Salvador's electoral tribunal said it would follow the Supreme Court's instructions, Reuters reported. Bukele has faced criticism over what opponents say is increasing authoritarianism. Bukele has rejected the accusation, saying he is cleaning up El Salvador, Reuters reported. [Editor's note: See related **Q&A** in the Sept. 1 issue of the daily Latin America Advisor.]

Supporters of Brazil's Bolsonaro Rally in More Than 100 Cities

Supporters of Brazilian President Jair Bolsonaro took to the streets in more than 100 cities across the South American nation on Tuesday, the county's independence day, as the president steps up criticism of next year's presidential election, Reuters reported. More than 100,000 Brazilians filled the streets of São Paulo, according to state security officials, draped in Brazilian flags and yellow and green clothing, The Wall Street Journal reported. Bolsonaro supporters carried signs demanding the jailing of communists and a congressional shutdown. The number of participants was far short of the record turnout the president had forecast, but the marches were nonetheless seen as a show of force in support of the far-right leader ahead of presidential elections next year. Bolsonaro in recent weeks has been casting doubt on the integrity of the voting system, a message he reiterated in São Paulo. "We cannot accept a voting system that does not offer any security in the elections," Bolsonaro said, Reuters reported. "I can't participate in a farce like the one sponsored by the electoral court." Critics say Bolsonaro is sowing doubt about Brazil's electoral system as opinion polls show him drastically losing the election to former President Luiz Inácio Lula da Silva if Lula were to run. Bolsonaro is facing falling approval ratings amid surging inflation and more than 584,000 deaths from Covid-19. Authorities had prepared for possible violent clashes, with some analysts drawing parallels between supporters of Bolsonaro and those of former U.S. President Donald Trump and warning beforehand that the demonstrations in Brazil could resemble the Jan. 6 riot at the U.S. Capitol. However, Tuesday's marches resembled street parties, with vendors selling beer and souvenirs, The Wall Street Journal reported.

ECONOMIC NEWS

Colombia's Congress Approves $4 Billion Tax Reform Plan

Colombian legislators late on Tuesday approved the government's latest tax reform, which is set to raise $4 billion annually, Reuters reported. President Iván Duque's administration has insisted that the overhaul is crucial as the country faces rising debt and a growing fiscal deficit just as social expenditures ticked up in response to the Covid-19 pandemic. The current legislation seeks to raise 15.2 trillion pesos per year, or about 1.5 percent of Colombia's GDP, which will initially be earmarked toward financing spending for this year and next, Reuters reported. The government said the bill's passage on Tuesday will provide a road map for the Andean nation to alleviate investor concerns and recover investment-grade credit ratings from Standard & Poor's and Fitch. The agencies earlier this year cut the country's ratings to junk status after massive protests against Duque's original tax bill thwarted the possibility of a significant tax reform. Richard Francis, director of Latin American sovereigns at Fitch Ratings, told the Latin America Advisor in a **Q&A** published July 30 that Duque's latest tax proposal is "consistent" with the agency's July 1 decision to downgrade Colombia to 'BB+' with a stable outlook.

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issues are related to competitiveness and the regulatory framework."

A **Megan Cook, manager, and Roland Huxley, specialist, in the Public Policy, Risk and Strategy Practice at Cefeidas Group:** "A potential Brazil-Argentine pipeline has been under discussion for some time without advancing, and while significant, Bolsonaro's support for a Vaca Muerta pipeline is far from definitive given the challenges the project faces and the political will required to overcome them. Nevertheless, recent droughts have put a strain on Brazil's electrical grid due to its reliance on hydroelectricity and raised suggestions that Brazil could struggle to meet demand for gas in the future (imports of liquefied natural gas were at record levels in July amid the drought). This could mean that progress on the pipeline has begun to take shape, particularly as industrial hubs such as Porto Alegre (and possibly São Paulo) could benefit from access to cheaper energy supplies. Argentina, meanwhile, needs the foreign currency that the gas exports would provide as it looks to secure a stable supply of dollars to ease macroeconomic pressures, such as the instability of the peso, and make debt payments. However, the project faces many challenges. First, Argentina's risk rating and limited access to foreign credit markets mean financing for the Argentine section of the pipeline may prove difficult to acquire, while it is also unclear where financing for the Brazilian section would come from. Second, there are doubts about future gas demand in Brazil and the attractiveness of a Vaca Muerta pipeline versus other possible sources of gas. Further, for the project to be viable, Argentina would need to ensure a stable supply by increasing gas production and adjusting restrictions that currently allow companies to export gas during the summer only, when domestic demand is reduced. In terms of environmental opposition, Argentines have largely accepted oil and gas production at Vaca Muerta as central to the country's economic development and thus far there is little suggestion that environmental activism would stall the project."

A **Gerardo Rabinovich, vice president of the Instituto de la Energía "General Mosconi" in Buenos Aires:** "A regional gas market between Argentina and Brazil is an old idea that dates back to the mid-1980s, when Argentina began to produce conventional natural gas in the mega-field of Loma La Lata. Toward the end of the 2010s, part of this idea became true, with the gas pipeline of Transportadora de Gas del Mercosur (TGM), which links the towns of Aldea Brasilera and Paso de los Libres in Argentina and crosses to Uruguaiana in Brazil, supplying the Uruguaiana Thermal Power Plant with Argentine natural gas. Argentina's energy crisis, which began in 2004, interrupted the supply of natural gas for almost 10 years, which broke the business of the electricity-generating company in Brazil. Today, Argentina does not have sufficient proven reserves to guarantee a long-term natural gas firm supply contract to southern Brazil from Vaca Muerta. Moreover, this natural gas should be competitive as compared to other energy alternatives once the current hydraulic crisis in the region's basins has been overcome. The international commitment of the Argentine state to make the country carbon neutral by 2050 puts an additional question on the feasibility of this project that, in a simplified view, does not have technical, economic and environmental feasibility studies needed for it to be a reality in the short term. Solid technical, economic and financial studies are required before any investment decision is made."

The Advisor welcomes comments on its Q&A section. Readers can write editor Gene Kuleta at **gkuleta@thedialogue.org**.

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