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FEATURED Q&A

Has Mexico's Energy Reform Affected Renewables?

Mexico has seen increased investment in its renewable energy sector, some three years after President Enrique Peña Nieto enacted the country's landmark energy reform. // File Photo: Mexican Government.

Q **Mexico's renewable energy sector is expected to attract $70 billion in foreign investments between 2015 and 2029, according to consulting firm PricewaterhouseCoopers. In early August, Mexican renewable energy group Zuma Energía announced it had received $600 million in project financing to build the country's largest wind farm. How has the country's landmark energy sector reform, which began in 2013, contributed to the outlook for Mexico's renewables sector? Which sub-sectors within that sector are likely to see the most investment, and why? Are there any foreseeable issues that may arise as Mexico looks to expand its renewable energy sector over the next decade?**

A **Doris Rodriguez, partner at Andrews Kurth Kenyon, and Pedro S. Llado Camarillo, lawyer at Gonzalez Calvillo Abogados:** "Mexico's energy reform targeted increases in private investment and renewable sources of energy by, among other things, instituting a competitive wholesale market and setting aggressive targets for clean-energy generation and greenhouse emissions reductions and establishing a market for clean energy certificates. As a result, Mexico successfully attracted essential new investment and technology into its energy sector. It is expected that by 2030, 62.2 percent of Mexico's new capacity will be clean. Solar and wind are poised for the most investment, given Mexico's resources and that solar and wind energy dominated Mexico's first two auctions. Located in the 'solar belt,' Mexico's solar resources are among the world's most abundant, and its high wind levels are significantly higher than the global average. A third sub-sector

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Former Petrobras CEO Charged in Corruption Case

Brazilian prosecutors heading the "Operation Car Wash" probe filed charges against Aldemir Bendine, who formerly headed state oil company Petrobras.

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Infrastructure Woes Crimping Argentina's Renewables

Argentina's next renewable energy auction in November will be for half the capacity of last year's auction, due to insufficient infrastructure affecting the country's ability to increase its renewables capacity.

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Ecopetrol Chief Echeverry Resigns

The president of Ecopetrol, Juan Carlos Echeverry, resigned, citing family reasons. Ecopetrol's current vice president will take over in the role.

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Echeverry // File Photo: Ecopetrol.

OIL & GAS SECTOR NEWS

Former Petrobras CEO Charged in Corruption Case

Brazilian prosecutors heading the massive "Operation Car Wash" corruption probe on Tuesday filed charges against Aldemir Bendine, who formerly headed state oil company Petrobras and state-owned bank Banco do Brasil, The Wall Street Journal reported. Bendine has been charged with corruption, money laundering and obstruction of justice. He was CEO of Petrobras from 2015 to 2016 and ran Banco do Brasil before that. Prosecutors allege Bendine received bribes from Brazilian construction conglomerate Odebrecht in exchange for lucrative contracts. Bendine denied wrongdoing through his lawyer, saying that he has neither received nor solicited any bribes. Prosecutor Athayde Ribeiro Costa on Tuesday alleged that Bendine requested some $952,000 in bribes from Odebrecht before becoming CEO of Petrobras. Prosecutors allege the payment was allegedly made in three installments. Bendine has been under arrest since July for his alleged involvement in the corruption scheme. On Wednesday, Petrobras suspended its top compliance official over a potential conflict of interest, The Wall Street Journal reported. Petrobras' board voted to temporarily suspend João Adalberto Elek Jr. after determining that his division had awarded a no-bid contract to Deloitte while the auditing firm was in the process of hiring Elek's daughter. The one-year, $8 million contract had been awarded on an urgent basis in December 2015. Petrobras said it had hired Deloitte to investigate allegations of graft that the company had received via its corruption hot line. Both Bendine and Elek had been brought on to Petrobras' management in 2015 with the stated purpose of helping to clean up the rampant corruption and mismanagement at the oil firm that had led to the "Operation Car Wash" corruption probe, which has implicated politicians and officials throughout Latin America. Petrobras did not immediately respond to a request for comment by Elek. [Editor's note: See related **Q&A** in the June 16 issue of the Energy Advisor.]

Bendine // File Photo: Brazilian Government.

Ecopetrol President Echeverry Resigns, VP to Lead Company

Ecopetrol President Juan Carlos Echeverry resigned, citing family reasons, after serving in the position for two and a half years, the state-owned oil company announced Aug. 17, according to Colombia Reports. Felipe Bayon, Ecopetrol's current vice president, will take over in the role on Sept. 15, Colombia's Financial Superintendency said. The superintendency said Echeverry had successfully navigated the challenges presented by the global drop in oil prices in 2014. "Echeverry has done an extraordinary job at Ecopetrol during one of the most difficult periods for the world oil industry," said Mining and Energy Minister Germán Arce. Echeverry also came under criticism during his tenure for Ecopetrol's plans to begin fracking activities in the country, as well as for union claims of the exploitation of workers. Under Echeverry, Ecopetrol expanded its operations into Mexico and the Caribbean in order to secure more supplies of oil after learning that Colombia's reserves were set to run out within approximately the next five years. Last week, Echeverry told Reuters that the state oil company had plans to explore unconventional deposits in the center and north of Colombia in a bid to increase reserves, as well. Ecopetrol is Colombia's largest company and its largest producer of crude. [Editor's note: See related **Q&A** in the July 7 issue of the Energy Advisor.]

NEWS BRIEFS

Brazil's Oil Regulator Releases Details of October Oil Auction

Brazilian oil regulator ANP on Wednesday unveiled the details of the country's upcoming pre-salt oil exploration auction set for Oct. 27, Reuters reported. Petrobras has extended its preferential rights on three of the blocks up for auction, meaning the state-run oil company can take at least a 30 percent stake in each of the blocks and share them with the winning bidders. The new rules will change the criteria for choosing the operators as well as the system for submitting bids in the auction.

Brazilian Government Eyes Privatization of Eletrobras

Brazil's Mining and Energy Ministry on Monday gave notice to the country's state-owned power utility, Eletrobras, saying that it would propose privatizing the company as the government struggles to close the country's record-setting budget deficit, Reuters reported. The ministry gave Eletrobras notice of the plan and said publicly that it would bring the proposal to President Michel Temer's special council on privatizations. The model for privatizing the utility and the terms of the privatization have not been decided, but the government would keep its right to veto some strategic decisions for the company, the ministry said.

Russia's Rosneft Finds Buyers for Four Months of Venezuelan Oil

Russian state oil firm Rosneft has struck deals with several buyers to sell nearly its entire quota of imported Venezuelan crude for the rest of this year, Reuters reported Wednesday. The sale marks the first time Russia has sold Venezuelan oil on such a large scale. In the past, Rosneft has sold Venezuelan crude and products to the United States and Asia.

Petrobras May See Few Bids for Natural Gas Plant Project

Brazilian state oil company Petrobras is trying to get international competition to build a $1 billion natural gas plant and is excluding large local engineering firms that have been implicated in the "Operation Car Wash" corruption scandal in the hopes of creating a model for "clean" contracting, Reuters reported Aug. 18. The project, however, will see fewer bids from global players than originally expected, due to more stringent requirements in the bidding process. Of the 30 foreign companies Petrobras has invited to bid on the contract, only five firms plan to participate in the consortiums, submitting bids by Aug. 28, according to three sources with knowledge of the matter. Contracting executives said bidders would have to spend as much as $10 million in order to create the detailed engineering designs Petrobras is requiring for the bidding process, and uncertainty surrounding the contracts has caused companies to hesitate to bid. Of the 30 foreign companies Petrobras has invited to bid on the contract, only five firms plan to participate in the consortiums, submitting bids by Aug. 28, according to three sources with knowledge of the matter. The five companies planning to bid are units of Spanish companies Acciona and Sener Ingenieria y Sistemas, Italy's Marie Tecnimont, Japan's Toyo and China Aluminum International Engineering, the sources said.

RENEWABLES NEWS

Infrastructure Woes Crimping Argentina's Renewables Growth

Argentina's next renewable energy auction in November will be for half the capacity of last year's auction, due to insufficient infrastructure affecting the country's ability to increase its

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that could attract additional investment is geothermal, given its abundance in Mexico, its high capacity factor and that it is not subject to variability concern. As is the case in emerging markets, availability and commercial ease of financing and lack of infrastructure are a concern. Underlying issues in Mexico include 'ejido' lands, local opposition and crime-related violence affecting certain key areas. Concern has already been expressed about producers' ability to timely meet the conditions in contracts awarded in the auctions. Moreover, a future resurgence in the price of oil could result in a reversion to fossil-generated energy. Given the increasing global importance of renewables and that the emerging market challenges are, in many cases, surmountable, these issues do not appear likely to stop the expansion, but they may affect its pace."

A **Cristiane Spercel, vice president and senior analyst, and Natividad Martel, vice president and senior analyst, for the Project & Infrastructure Finance Group at Moody's Latin America:** "The Energy Transition Law enacted in 2015 has contributed to a pick-up in renewable investments in Mexico. The long-term program for renewable development considers the expansion of clean energy share in the country's total electricity output to 35 percent by 2024. In addition to clean energy targets, a key change to the new framework was the reduction in entry barriers for private investments, along with the introduction of mechanisms to facilitate competitive energy trading. The availability of a Clean Energy Certificates market and a gradual reduction in subsidies for oil products are also key developments to support the scale-up of Mexican renewables over the next several years. The country has commissioned a total of 5.9 gigawatts of alternative renewables through December 2016, representing about 8 percent of Mexico's installed capacity. Recent auctions will add another 5 gigawatts in renewables installed capacity through 2020. Onshore wind currently represents the largest share, followed by clean co-generation and geothermal power plants. Going forward, we also see a growing participation of solar photovoltaic, based on attractive project fundamentals such as low installation costs (land and labor), along with tax incentives on imported components and favorable climate resources. This will be tempered by social tensions and land permits that may become key risks for certain projects. Differently from other countries, Mexico considers nuclear and co-generation with carbon dioxide sequestration as clean energy. Co-generation will compete with alternative renewables as the country pursues its carbon-reduction commitments. Nevertheless, the successful first and second renewable energy auctions in 2016 will place renewable energy in direct completion with other conventional energy technologies with action prices as low as $35.80 per megawatt-hour and $31.80 per megawatt-hour, respectively for wind and solar. The only concern is whether the rapid decline in prices are sustainable in the medium term. The penetration of the market will continue, but the pace will be ultimately depend on the ongoing cost reduction of the technology, improved reliance and stable framework that helps cover social and land issues for new projects."

A **Dino Barajas, partner at Akin Gump Strauss Hauer & Feld LLP:** "Mexico's renewable energy sector has once again become the lightning rod for foreign investment in Latin America. Brazil, Chile and Argentina are still giving Mexico a run for its money, but the longevity of Mexico's renewable energy continues to give developers and long-term investors comfort that its attractiveness will not be just a flash in the pan. Solar is currently the most active sector for newer investors, given the ability to scale

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renewables capacity, Bloomberg News reported Monday. The government will auction just 1.2 gigawatts of renewable power, mostly wind and solar projects, which energy trading company SAESA has projected will attract some $2 billion in investment, down from the 2.4 gigawatts of renewable projects tendered last year that brought in approximately $4 billion. "We don't need to auction all renewable capacity now, said Energy Minister Juan José Aranguren. "We'll have, at the same time, transmission line auctions and solve the bottlenecks." The government plans to award contracts for eight new transmission lines to accompany the clean power expansion. The country currently has limited transmission infrastructure that reaches the regions that are ideal for wind and solar power generation. Argentina needs to add approximately 3,100 miles of transmission lines over the next three years in order to keep pace with its growing renewables capacity.

POLITICAL NEWS

Venezuela's Ortega Claims to Have Evidence of Graft

Fired Venezuelan Attorney General Luisa Ortega Díaz claimed on Thursday to have evidence that President Nicolás Maduro and other top ruling party officials were involved in a corruption scheme with Brazilian construction con-

Ortega // File Photo: Venezuelan Government.

glomerate Odebrecht, Reuters reported. Ortega made the announcement from Brazil where she fled after she broke with Maduro's government and Venezuela's new powerful constituent assembly removed her from her position. While Ortega did not present proof of corruption by Maduro or his associates, she claimed to have evidence that Socialist Party official Diosdado Cabello received approximately $100 million from Odebrecht, which has admitted to bribing officials in several Latin American countries. She also alleged that Maduro and the ruling party's Jorge Rodríguez were also involved.

ADVISOR Q&A

What Did U.S. Vice President Mike Pence Accomplish on His Latin America Trip?

Q **U.S. Vice President Mike Pence last week visited South and Central America, where he sought to reassure the region following comments from President Donald Trump of a possible military intervention in Venezuela, as its government teeters on the brink of dictatorship. Pence also looked to strengthen diplomatic, economic and security ties with U.S. allies in the region, including Argentina and Colombia. Was Pence successful in his damage-control efforts following Trump's threats of military intervention? What does Pence's visit signal about U.S. foreign policy priorities in the region? How strong will Latin American ties with the United States be during Trump's presidency?**

A **Dan Erikson, managing director at Blue Star Strategies and special advisor to the U.S. vice president from 2015-2017:** "Vice President Pence deserves credit for carrying out an important and substantive trip to Latin America, where he both reinforced and added additional nuance to this administration's policies toward the region. Moreover, his visit built on the recent White House visits by three of the leaders—President Macri visited the Oval Office in April, followed by President Santos in May and President Varela in June—while reaching out to a fourth, Chilean President Michelle Bachelet, who had maintained greater distance during the early months of the Trump administration. Regarding Venezuela, Pence expressed deep concern about the situation there, while emphasizing the need for the countries of the hemisphere to work together to devise a 'peaceable' solution. During the trip, the vice president made two substantive policy speeches, which carried important messages that should be carefully studied throughout Latin America and in the United States. The first focused on the opportunities to expand trade and commerce—and was notably delivered in Argentina, the one country on the trip that is not yet a free-trade partner of the United States, where Pence gave high praise to Macri's reform agenda. The second, in Chile, focused on similar themes and hailed the U.S.-Chile Free Trade Agreement as a 'model agreement' that has resulted in a 'dramatic expansion of trade, investment and opportunity' for the people of both countries. Both speeches urged the countries of the region to deepen their 'market-based reforms' and were heavily tilted toward advancing an opportunity-based agenda in U.S.-Latin American relations. These speeches, coupled with the announcement of new agreements to expand U.S. pork exports to Argentina and rice exports to Colombia, suggest the emergence of a more sober-minded, pragmatic and fundamentally optimistic approach to Latin America that, if nurtured, could help weather the inevitable conflicts that will continue to test the U.S. relationship with the region."

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

NEWS BRIEFS

Guatemalan President Reportedly Seeking Ouster of CICIG Chief

Guatemalan President Jimmy Morales plans to ask U.N. Secretary General António Guterres to remove the head of the U.N.-backed International Commission against Impunity in Guatemala, or CICIG, which has been investigating corruption in the country, including probing Morales' family for suspected graft, two government officials said Wednesday, Reuters reported. Officials said Morales will travel to New York this week and ask Guterres to replace CICIG chief Iván Velásquez Gómez.

Brazilian Government Launches Plan to Privatize State Assets

The government of Brazilian President Michel Temer on Wednesday launched a plan to privatize highways, ports and the country's mint in order to raise revenues and boost investment in infrastructure, the Financial Times reported. Altogether, the government is eyeing 57 assets for possible auction, including São Paulo's city airport, Congonhas.

U.S. Expands Travel Advisory to Mexico Tourist Areas

The U.S. government on Tuesday broadened a travel advisory for Mexico as the murder rate rises in the country, The Wall Street Journal reported. The State Department encouraged U.S. citizens to "exercise caution" when visiting popular tourist destinations such as Baja California and the Caribbean Coast of Mexico, including resort city Cancún. The rise in the murder rate has been tied to infighting between drug cartels. Previous travel warnings from the United States had not included these areas of Mexico. The State Department's warning is the first such advisory to target resort areas that are integral to Mexico's tourism industry.

"The international community must investigate such cases," she said. Venezuelan authorities did not respond to Reuters' request for comment. Maduro's government has accused Ortega of corruption, and on Wednesday, state-controlled television showed images of what it said was the inside of her apartment, showing marble floors, large paintings of Ortega, expensive clothes and high-end wines. Ortega has said the graft claims against her are politically motivated.

Ecuador's Top Prosecutor to Present Graft Case Against VP

Ecuador's top prosecutor, Carlos Baca, on Monday said he would present a corruption case against Vice President Jorge Glas, Reuters reported. President Lenín Moreno stripped Glas of his authority earlier this month over corruption allegations related to the scandal involving Brazilian construction conglomerate Odebrecht. Baca said his office has evidence of "illicit association" against the embattled vice president. "We will request the National Court of Justice set a hearing date against Jorge Glas, the vice president," Baca read from a statement to reporters. At least 92 of the 137 sitting members of Ecuador's Congress must vote to allow an investigation of a sitting vice president and to allow prosecutors to present evidence to the court. Glas denies wrongdoing. "I have never allowed corruption or been a part of it," he said after Baca's statement. Brazil's Odebrecht is at the center of a massive corruption scandal in which the company paid politicians bribes across Latin America and in other countries around the world in exchange for securing lucrative contracts. The company has already paid $3.5 billion in settlements in the United States, Brazil and Switzerland, and plea bargain testimony from Odebrecht employees has embroiled politicians throughout Latin America in the scandal. [Editor's note: See related Q&A in the July 14 issue of the daily Latin America Advisor.]

The corruption allegations have split members of former President Correa's Alianza PAIS party.

ECONOMIC NEWS

Trump Threatens to Terminate NAFTA

U.S. President Donald Trump threatened in a speech Tuesday in Phoenix to terminate the North American Free Trade Agreement, or NAFTA, Reuters reported. Negotiators from the United States, Mexico and Canada wrapped up their first round of talks on Sunday in Washington as they begin renegotiating the 1994 trade accord, with subsequent rounds of talks scheduled for Mexico and Canada in September, back to the United States in October and additional rounds scheduled for later in the year. However, at Tuesday's rally in Phoenix, Trump said he may want to terminate the deal altogether. "Personally, I don't think we can make a deal. I think we'll probably end up terminating NAFTA at some point," he said, adding that scrapping the accord may lead to a new agreement. "I personally don't think you can make a deal without a termination." After Trump's remarks, Mexican Foreign Minister Luis Videgaray said in a tweet that his country will proceed with the talks. "Mexico will remain at the table with serenity, firmness and with the national interest ahead," he said. Also during his speech, Trump said he may seek to shut down the U.S. government in order to force Congress to provide money for his proposed multi-billion-dollar wall along the U.S.-Mexico border.

> **"I think we'll probably end up terminating NAFTA at some point."**
> — Donald Trump

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up projects over time as developers find suitable long-term offtakers after starting with smaller investments. More established Mexican renewable energy players have continued to develop larger wind developments, given that they have been in the market for longer periods and understand the intricacies of the legal matrix and where the niche opportunities may lie. The fact that these investors have larger sunk costs in developing large projects is also making them more aggressive in competing for Mexico's electricity demand. Over time, if solar installation costs continue to fall, solar developers will likely gain the upper hand, because solar developments may be more agile at starting small to meet opportunistic market openings and then scaling up as footholds are gained throughout the country. The risk appetite of project-finance lenders will likely ultimately determine the course and speed of development in Mexico's burgeoning renewable energy market. As the energy production portfolio continues to become more diversified, it will be Mexico's consumers who will benefit from natural hedges against hydrocarbon fuel pricing spikes with a diverse energy production basket. I predict the announcement of more large-scale projects as investors continue to make large bets on the Mexican energy market."

A **José Alberro, co-head of the international arbitration and litigation practice at Cornerstone Research:** "Four years after Mexico's landmark energy sector reform, it has started meeting its ambitious goals for renewables: a few days ago, Mexican renewable energy group Zuma Energía announced it had received $600 million in project financing to build the country's largest wind farm. Mexico expects to provide 35 percent of electricity from renewable sources by 2024, 40 percent by 2035, and 50 percent by 2050. The investments in eolic and photovoltaic generation necessary to reach these objectives require allocating land to that purpose and adapting the grid. Some 15,000 miles of new transmission lines need to be built by 2030 to exploit eolic and photovoltaic resources located in the northern and western parts of Mexico, far from population centers and industrial activity. Juggling all the components without dropping one is a significant challenge. Total investment in the sector is expected to top $120 billion over the next 15 years, $90 billion of which will have to be in generation assets. PricewaterhouseCoopers expects $70 billion in foreign investments. Mexico's potential for electricity generation from renewable sources is important; it is estimated to be 50,000 MW for eolic generation with load factors that can top 40 percent, and the National Renewable Energy Laboratory ranks Mexico's solar resources among the world's best and most abundant, 1.5 percent of the territory being sufficient to generate all electricity consumed. By 2019, eolic capacity is expected to triple, and photovoltaic capacity is expected to grow 20-fold. Those estimates include the winners of the first and second renewable energy auctions carried out over the last couple of years. It is interesting to note that the first renewable energy auction resulted in average purchases prices of $45.15 per MWh from photovoltaic sources and $55.39 per MWh from wind source—some of the lowest in the world. The second auction resulted in prices 15 percent lower."

> **"Mexico's renewable energy sector has once again become the lightning rod for foreign investment in Latin America."**
> **— Dino Barajas**

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

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