INTER-AMERICAN DIALOGUE'S
LATIN AMERICA ADVISOR ▸ ENERGY

FEATURED Q&A

What Is Generating Interest in Oil Exploration in Nicaragua?

Q Nicaragua currently has five onshore and offshore oil exploration projects and within the last month, both Houston-based Noble Energy and Nicaragua's energy minister on behalf of Spain's Repsol announced they will begin drilling wells off the country's Caribbean coast. What is drawing international oil companies to Nicaragua? What are the prospects for finding oil, both onshore and offshore, and does the country's regulatory climate provide the right incentives for oil exploration and development?

A Pablo Medina, Latin America Upstream Analyst at Wood Mackenzie: "The increased appetite of large companies for frontier exploration has drawn them to Nicaragua, which offers prospective acreage and attractive fiscal terms. Noble Energy has been a leader in this regard, holding positions in frontier areas such as Israel, the Falklands and now Nicaragua. Repsol has also actively grown its global exploration portfolio and has been building its Caribbean position in recent years. The focus for the IOCs is offshore exploration which has a high-risk, high-reward nature. There has been no offshore drilling in Nicaragua since the 1970s, and the Paraiso Sur well that Noble plans to spud in August will be the country's first ever deepwater well. The risk is certainly high, but if Noble is successful, then there will be positive implications for both Nicaragua and the wider region. The onshore opportunity is more limited and will likely only attract smaller companies. Nicaragua's regulatory framework is one of the more attractive in Latin America. The government has recognized the high-risk nature of the country's offshore acreage and has established an appropriate set of fiscal terms. Given estimated well costs of $100 million, an appropriate level of tax take is essential to attract companies to undertake wildcat exploration."

Continued on page 3

CPFL Energías Renonvávis Raises 900 Million Reais in IPO

CPFL Energias Renováveis, led by CEO Miguel Saad (above), raised almost 900 million reais ($404 million) in an initial public offering held last week. The company is South America's biggest owner of wind farms. See story on page 2.

File Photo: Terra.com.br

Inside This Issue

ENERGY SECTOR BRIEFS

Fotowatio Renewable Ventures Wins 50 MW Solar Project in Uruguay

Amsterdam-based **Fotowatio Renewable Ventures**, backed by U.S. energy-focused private equity firm **Denham Capital**, has been awarded a 30-year power purchase agreement by Uruguay to build a 50 megawatt solar farm in the northern town of Salto, EFE reported Monday. The project is scheduled to be completed in 2014 and provide energy for 20,000 homes in Salto. In late May, Uruguay began its first tender for up to 200 megawatts of large-scale solar projects.

YPF to Start Construction on New Coke Plant Near Capital

Argentine state oil company **YPF** announced Monday that it will soon begin building a new coke plant in the city of La Plata, approximately 37 miles southeast of Buenos Aires, EFE reported. The equipment arrived Sunday to the port of Berisso and will likely be moved to the construction site next weekend. YPF said the $800 million plant could begin operating in early 2016 and will increase the company's fuel and diesel production by 600 million liters a year.

Cuba To Install Six Biogas Plants Over the Next two Years

Cuba will install six biogas plants over the next two years, Presna Latina reported last week. The plants represent an investment of $2 million and will produce 100 to 500 kilowatts of energy each. Cuba has dozens of biogas generators but most produce cooking gas. Biogas technology generates electricity using methane from agricultural waste, and in 2011, Hanoi-based **Biogas Technology Center** built two pilot power plant projects in Ciego de Ávila, a center of the country's cattle and pork industry.

Power Sector News

South America's Largest Owner of Wind Farms Raises $404 Mn in IPO

CPFL Energias Renováveis, the renewable energy division of **CPFL Energia** and the largest owner of wind farms in South America, raised 900 million reais ($404 million) in an initial public offering held July 17, Bloomberg News reported. The IPO was backed by **Grupo BTG Pactual** and **Previ**, **Banco do Brasil**'s pension fund, which pledged to put 890 million reais into the IPO if investor demand was weak, according to Reuters. Brazil's security regulator, Comissão de Valores Mobiliários, said last week that the company sold 71.9 million shares for 12.51 reais each, the low end of the company's target range. The International Finance Corporation, a unit of the World Bank, bought 150 million reais of shares, Bloomberg News reported this Tuesday. CPFL Renováveis suspended an IPO planned for last year due to uncertainties in the global market but was in a better position to hold an IPO this year as it has nearly doubled its generation capacity to 1,153 megawatts since its inception in 2011. The money raised in the IPO will go toward funding new projects and potentially buying exiting ones, including ventures into solar energy. Maria Gabriela da Rocha Oliveira, a Bloomberg New Energy Finance Analyst based in São Paulo, told Bloomberg before the IPO that the company is one of the few well-capitalized developers exploring solar in Brazil and that investment in solar is " the next step for wind developers. … It will help them diversify from wind." CPFL Renováveis plans to invest 1.1 billion reais this year to expand their capacity and has 582 megawatts of projects under construction, including 18 wind farms. The company owns Brazil's largest solar plant, a 1.1 megawatt facility in Campinas.

Argentina Sees Record Energy Use, Implements Natural Gas Restrictions

Argentina's Federal Planning Ministry said the nation's power grid broke a daily record of 22,533 megawatts on Monday, state news agency Telam reported. The electrical system has been operating "normally" and has an additional reserve of at least 2,000 megawatts, planning minister Julio De Vido told reporters. A cold snap, which comes at the height of the South American winter, has led to a spike in natural gas consumption as well, with Enargas, the sector's regulatory authority, reporting a new record Sunday. Residential demand for gas in Buenos Aires on Monday climbed to about 95 million cubic meters, a new record, *El País* reported. The government has responded to the spikes by ordering industrial gas restrictions that are affecting "all types of businesses," according to the report in *El País*. Industries affected include steel (**Siderar**, **Siderca**, **Aluar**, **Acindar**), petrochemical (**Sherritt, Dow** and **Mega**), automotive (**Ford**, **Volkswagen** and **General Motors**), food, cement and mining, among others. Nationally, it is estimated that some 300 businesses are under "significant restrictions" of gas consumption, according to *El País*.

De Vido

File Photo: Argentine Government.

Oil & Gas News

CNPC Considering Purchase of Some of Petrobras' South American Assets

China National Petroleum Corp. is looking at purchasing some of Brazilian state oil company **Petrobras**' assets in South America, three people with knowledge of the matter told Bloomberg News last Thursday. Petrobras' assets in Peru and Colombia could be worth as much as $2 billion, two of the sources told Bloomberg, and CNPC may have to compete for the assets with other companies. Petrobras declined to comment on th possible sale of its Colombian and Peruvian assets. Petrobras is the most indebted publicly traded oil company and is looking to shed assets to help finance its investment plan of $237 billion through 2017. Much of its investment is going to developing deepwater projects, especially the Libra field. Petrobras sold a $1.5 billion stake in its African assets to **Grupo BTG Pactual** last month, and the company announced last week that it had signed two financing agreements with the **Japan Bank for International Cooperation** (JBIC). The two credit lines, worth $1.5 billion, will allow Petrobras to purchase equipment and services form Japanese companies. Sixty percent of the financing for the credit lines will come from JBIC, with private Japanese institutions providing the remaining 40 percent.

Bahamian Government Renews Licenses for Offshore Oil Exploration

The Bahamas' ministry of the environment has renewed **Bahamas Petroleum**'s five oil exploration licenses for three years, to last until 2016, the company said Monday in a statement on its Web site. The company must begin drilling an exploration well by April 2015 and is looking for financing for the well through farmout agreements. The renewal of the oil exploration licenses has been a politically contentious issue in the country, Reuters reported. Bahamas Petroleum's original licenses expired last April, and their renewal was uncertain as politicians from the ruling party opposed offshore drilling in last year's elections. However, the ruling party lost and the new government in September decided to extend the licenses but put the drilling of a well to a referendum. Earlier this year, the government postponed a referendum on the future of offshore drilling, which meant that the company can begin offshore exploratory drilling.

Third Well Off the Coast of French Guiana Comes Up Dry

Tullow Oil announced that the third well in a four-well exploration plan off the coast of French Guiana came up dry, Reuters reported Tuesday. London-based Tullow holds a 27.5 percent stake in the Guyane maritime license, while the Netherlands' **Shell** holds a 45 percent stake and France's **Total** a 25 percent stake. British **Northpet** holds the remaining 2.5 percent. The GM-ES-4 well, which was operated by Shell, was plugged up and abandoned. The companies plan to drill their fourth well near where the Zaedyus 1 oil discovery was made in 2011 and then will decide on their future in the area. "French Guiana commerciality remains uncertain," **Morgan Stanley** analysts said in a research note, according to Reuters.

Mexico's PAN Outlines Energy Reform Plan

The leaders of Mexico's opposition National Action Party, or PAN, on July 18 outlined their proposals for reforming the country's energy sector, saying the changes are needed to bring in billions of dollars in private investment, Reuters reported. The plan by the conservative party would amend several parts of Mexico's Constitution, which has blocked the country from granting private concessions and forming joint ventures with foreign oil companies. President Enrique Peña Nieto of the Institutional Revolutionary Party, or PRI, is also planning to unveil a major energy reform package, but is not expected to release details of it until September. The leftist Party of the Democratic Revolution, or PRD, also recently outlined its reform plan for the sector. PAN Congressman Ricardo Anaya called his party's plan a "deep reform" that would lead to more competition in the sector. The reform would lead

Featured Q&A

Continued from page 1

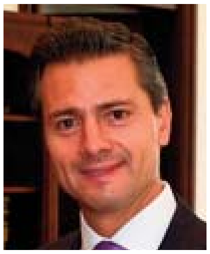
A **Tom Donnelly, vice president of International Resource Management (Canada) Ltd.:** "What is drawing international oil companies to Nicaragua? Opportunity! Most of the hydrocarbon reservoirs in North America today are well developed, and until we had horizontal drilling and multi-staged fracturing, some were even close to being depleted. The prospect of developing virgin reservoirs in new frontiers like Nicaragua is appealing. There are three requirements for hydrocarbon reserves: organically rich source rock, overlain by a reservoir rock, in turn overlain by an impermeable cap rock. These conditions exist in Nicaragua. From the onshore data we reviewed, we have observed live oil generally in about 1,000 feet of oil-stained and oil-saturated rock. We have also seen extensive data showing potential thick hydrocarbon producing zones and large traps. This is what led to the San Bartolo discovery announced last November by Industria Oklahoma Nicaragua, S.A (Indoklanicsa). Data of a less technical nature, but almost more telling, is accounts of a stream where if you poke the bottom with a stick, oil comes to the surface. Therefore, I am convinced the prospects for producing oil commercially in Nicaragua are very favorable. The regulatory climate of the Nicaraguan government is extremely positive. Our client, Michael Goyne, president of Indoklanicsa, has continuously impressed upon me how supportive the Nicaraguan government has been of the Sandino Basin Development to date. His assurance, coupled with a reasonable royalty and tax structure, leads me to believe that Nicaragua is an excellent place to invest in oil and gas exploration."

> "I am convinced that the prospects for producing oil comercially in Nicaragua are very favorable."
>
> *— Tom Donnelly*

A **Andrew Melsheimer, partner at Thompson & Knight in Dallas:** "A better way to respond is to explain why oil companies are returning to Nicaragua. Approximately

Continued on page 6

to at least 100,000 new jobs annually and as much as $30 billion in private investment every year. Oil and natural gas resources would remain the property of the government under the plan, said Anaya. The plan also would establish a new Mexican Petroleum Fund, an independent agency that would be responsible for administering profits in the sector. The PAN's proposals also would give the national hydrocarbons commission the authority to award concessions. "Our oil industry model has run dry," Gustavo Madero, the PAN's chairman, told reporters. "It is an unsustainable, non-viable model that needs to be thoroughly reformed in order to return to productivity." The party's plan would allow state oil company **Pemex** to have autonomy in its management and budget and operate more like a private firm. The country's oil production has dropped to 2.5 million barrels per day from its peak level of 3.4 million barrels per day in 2004.



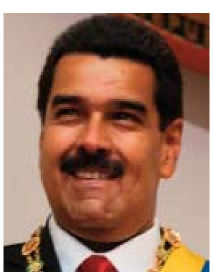
Peña Nieto

File Photo: Mexican Government.

Economic News

Venezuela Seeking $5 Billion From China for Fund Hit by Scandal

Venezuela's government is seeking a loan of as much as $5 billion from China for a government investment fund that had been the target of an embezzlement scheme by the fund's employees, Reuters reported Tuesday. Officials from the two countries were in talks for a third tranche of the Joint Chinese-Venezuela Fund, which Venezuela uses for housing, infrastructure and other projects. The South American country repays China through oil shipments. Earlier this month, the government of Venezuelan President Nicolás Maduro said that eight people had been arrested for allegedly embezzling $84 million from the fund. Since its establishment in 2007, the China Development Bank has provided two tranches of $4 billion each to the fund. Venezuela's public prosecutor's office has said it will charge four employees of the fund, including its acting executive manager, in connection with the incident. Temir Porras, head of Venezuelan state development bank Bandes, which administers the fund, told state media that talks with Chinese officials about a new tranche were ongoing. "In the next two weeks we are going to have another round of high-level negotiations in Caracas with China Development Bank," said Porras, adding that the next tranche "could reach $5 billion. That's what we're negotiating right now."



Maduro

File Photo: Venezuelan Government.

Research Alert

Region's Abundant Shale Gas Faces Political Challenges to Development

Latin American countries have large shale gas reserves, but face challenges to their development in their investment climates, security and access to the human capital needed to develop them, enery expert David Mares said in a new working paper of the Inter-American Dialogue's Energy Policy Group. Mares analyzes and compares the prospects for addressing those challenges in Argentina, Mexico, Brazil, Colombia, Chile and Paraguay.

The region, Mares says, "potentially has a vast supply of natural gas," pointing to a 2011 U.S. Energy Information Agency report that estimates Argentina has 774 trillion cubic feet (tcf) of technically recoverable shale gas, followed by Mexico with 681 tcf and Brazil with 226 tcf. Paraguay and Chile have 62 tcf and 64 tcf respectively, with Colombia behind with 19 tcf.

Based on the U.S. experience, it is clear that developing shale resources requires significant investment, Mares says, and "that the willingness of investors to come to the region will depend on the rates of return and the levels of political risk. "Each country faces different challenges to the development of its natural resource endowment that depend on their particular situation and politics. Mares highlights the main challenges facing each country from Argentina, where domestic-market policies are a major concern, to Mexico where security, a lack of human capital, and limitations on investment are paramount and Brazil where he said domestic content and environmental regulations deter investment.

The report concludes that "Hydrocarbon energy resources will remain important sources of energy for decades to come." However, it adds the development of shale gas potential "faces significant challenges, and it is not clear that the region will address them successfully. To varying degrees, the politics of hydrocarbon production is problematic in the major Latin American countries." The region faces similar challenges to those it faces in developing its oil resources: countries must develop policies and incentives to encourage investors "to bring the requisite capital, skill and technology to the region," said Mares.

A full version of the paper "Shale Gas in Latin America: Opportunities and Challenges" can be accessed here. David Mares is a scholar at the Institute of the Americas, the James A. Baker III Institute for Public Policy at Rice University and the University of California, San Diego.

Brazil's Government Cuts Spending Amid Slower Growth

Brazil's government is trimming its spending in an effort to meet its fiscal targets as growth slows in Latin America's largest economy, Bloomberg News reported Monday. The announcement marked the second time in two months that the government of President Dilma Rousseff has cut spending. The government will reduce its expenditures by 10 billion reais ($4.5 billion) and is lowering its forecast for economic growth this year to 3 percent from 3.5 percent, said Finance Minister Guido Mantega.

Political News

Pope Francis Warns Against Drug Legalization

During a visit Wednesday to a Rio de Janeiro hospital, Pope Francis warned Latin American countries against legalizing drugs, saying the move would not reduce substance abuse, Bloomberg News reported. "The scourge of drug trafficking, which favors violence and sows pain and death, requires an act of courage from all of society," the pope said in inaugurating a new wing for the chemically-dependent at the St. Francis of Assisi of the Province of God hospital. "It is not by allowing free use of drugs, as discussed in various parts of Latin America, that there will be a reduction in the spread and influence of chemical dependence." Leaders of several countries in the region have called for new approaches in fighting narcotics. Last year, Uruguayan President José Mujica started a campaign to legalize marijuana and make the government a supplier. In 2009, three former presidents, Fernando Henrique Cardoso of Brazil, Mexico's Ernesto Zedillo and César Gaviria of Colombia, published a report saying the drug war led by the United States had failed and urged new approaches. Current presidents Juan Manuel Santos of Colombia and Enrique Peña Nieto of Mexico have also called for a debate on drug legalization. However, the first pope from Latin America said that he favored a different approach. "We need to confront the problems that are at the root of drug use, promoting greater justice and educating young people," said Francis.

> "The scourge of drug trafficking, which favors violence and sows pain and death, requires an act of courage from all of society."
>
> *— Pope Francis*

Morales Accepts Apologies From European Countries Over Plane Row

Bolivian President Evo Morales said Wednesday that he accepted the apologies of European countries that closed their airspace to his plane over suspicions that U.S. fugitive Edward Snowden was aboard, BBC News reported. Portugal, France, Italy and Spain barred the plane from their airspace July 2 as Morales attempted to fly home from a summit in Moscow, where Snowden has been holed up in an airport transit area since June 23. Morales' plane was finally forced to land in Vienna where it was searched. After the incident, Bolivia accused the European countries of acting on an alleged tip from the United States in barring the plane. Bolivia recalled its ambassadors from the European countries, and the Europeans apologized, saying mistakes were made during the incident. Morales said that he accepted the apologies even though he was not "fully satisfied" with them.

Presidents of Colombia, Venezuela Meet in Effort to Mend Ties

Colombian President Juan Manuel Santos and his Venezuelan counterpart, Nicolás Maduro, met Monday in an effort to mend the strained relations between the two Andean countries, BBC News reported. During the meeting in a Venezuelan border town, the presidents agreed to establish high-level groups to talk about security, trade and energy. Ties between Colombia and Venezuela have been particularly strained since Santos met two months ago in Bogotá with Venezuelan opposition leader Henrique Capriles. Maduro defeated Capriles in April in a close presidential election that was called after the March 5 death of Hugo Chávez.

POLITICAL & ECONOMIC BRIEFS

Cuba's Main Terminal at Martí Airport Getting $10.2 Mn Upgrade

Cuba's main terminal at the José Martí International Airport will get a $10.2 million upgrade in order to handle passenger volumes that have outstripped its capacity, the Associated Press reported Tuesday. Terminal 3, which handles all international traffic except chartered flights from the United States, will see upgrades to its boarding bridges, parking lot, check-in counters and lighting. Construction began in early July and will last six months.

U.S. Hopes to Restart Bilateral Talks With Ecuador: Namm

The U.S. government hopes to restart bilateral talks with Ecuador before the end of the year, U.S. Ambassador to Ecuador Adam E. Namm said on a local radio station this week, according to Dow Jones. The nations have had a strained relationship since early 2011 when a WikiLeaks cable led to the mutual expulsion of ambassadors, and they have clashed in recent weeks over the case of NSA leaker Edward Snowden. The United States is Ecuador's top trade partner.

Peru's Central Bank Loosening Reserve Requirements

Peru's central bank announced Monday that it is relaxing reserve requirements for banks to encourage the use of the sol currency as economic growth in the Andean nation slows, Reuters reported. The changes lower the average and marginal reserve rates on accounts denominated in dollars and soles and take effect Aug. 1.The central bank increased reserve requirements last year trying to reduce capital inflows that were raising the sol. This year, the currency has fallen 9 percent against the dollar.

Featured Q&A
Continued from page 3

26 wells were drilled offshore Nicaragua in the Caribbean Sea between 1943 and 1977. Several encountered hydrocarbons, with one testing 350 bpd. Given the era, none of the wells were declared commercial. Prior well tests and the limited science available at the time, coupled with an uncertain political situation, caused many to overlook Nicaragua, even though some believe that it shares geological structures similar to those in Mexico's Reforma/Cantarell area, Guatemala's Rubelsanto Field, Venezuela's Maracaibo Basin or offshore West Africa. Since the 1990s, Nicaragua has offered investors a more stable political environment, and the country is committed to developing its hydrocarbon industry as part of its goal to become self-sufficient. With that increased political stability, Infinity Energy Resources began to work with the Nicaraguan government in structuring its first bid round in decades. That tender process attracted companies interested in exploring the large structures offshore Nicaragua which could provide for reef development of organic-rich source rocks. Drilling will determine whether these structures have trapped commercial quantities of oil. Noble Energy's recent announcement that it intends to drill an exploratory well in the coming months demonstrates that one of the more successful exploration companies of late believes in this play and is willing to expose significant capital to test it. And not long thereafter, Infinity will begin its seismic program. As for the legal and regulatory climate, Nicaragua has comprehensive, investor-friendly hydrocarbon and environmental laws and regulations that govern offshore activities. To date, only three concessions (with Repsol appearing to be the fourth) have been granted under these laws. So the country is still learning and adjusting as activities progress under these concessions. And it would not be surprising if Nicaragua revisits, enhances and clarifies its hydrocarbon law as part of its efforts to attract more investment in the sector. For the time being, however, the government has shown a willingness to work with foreign oil companies and provide an environment that promotes their efforts in exploring and hopefully producing hydrocarbons offshore."

> "The government has shown a willingness to work with foreign oil companies and provide an environment that promotes their efforts."
>
> *— Andrew Melsheimer*

A **Federico Gurdián, partner at Garcia & Bodan in Managua and lead legal counsel for Indoklanicsa:** "The opportunity access new and unexplored hydrocarbon reservoirs in a country that is actively promoting foreign investment is what is drawing international oil companies to Nicaragua, where to date a number of wells have been tested for oil or natural gas. Such is the case of Indoklanicsa, a Nicaraguan corporation owned by foreign investors. Indoklanicsa is the holder and operator of the only concession for exploration, exploitation and marketing of hydrocarbons onshore the Pacific area of Nicaragua, which was granted in 2004. Also, Spain's Repsol and Houston-based Noble Energy have announced that they will be drilling wells off Nicaragua's Atlantic coast in the near future. Thus, it appears that the country's regulatory climate provides the right incentives for oil exploration and development. In my experience, the Nicaraguan government has at all times been cooperative with regard to the Sandino Basin Development and the company's operations there."

The Energy Advisor *welcomes responses to this Q&A. Readers can write editor Gene Kuleta at gkuleta@thedialogue.org with comments.*

Latin America Energy Advisor
is published weekly by the Inter-American Dialogue
Copyright © 2013

Erik Brand
General Manager, Publishing
ebrand@thedialogue.org

Gene Kuleta
Editor
gkuleta@thedialogue.org

Megan Cook
Reporter, Assistant Editor
mcook@thedialogue.org

Subscription Inquiries are welcomed at freetrial@thedialogue.org

Latin America Energy Advisor is published weekly, with the exception of some major US holidays, by the Inter-American Dialogue
1211 Connecticut Avenue NW, Suite 510
Washington, DC 20036
Phone: 202-822-9002 Fax: 202-822-9553
www.thedialogue.org ISSN 2163-7962

