

Overseas Business Insights

In this Issue:

Brazil – Oil and Gas Auction.....	1
Colombia – Highway Program.....	1
Mexico– Oil Auction.....	2
Brazil – Energy Storage	3
Brazil – Blockchain Draws Investors	4
Resource Links	6

April/May 2018

U.S. Department of State
Bureau of Western Hemisphere Affairs



Brazil: U.S. Oil and Gas Companies Successful in First Auction of 2018

After drawing international oil companies (IOCs) back to its offshore blocks in 2017 with a series of critical reforms, Brazil succeeded in sustaining international interest in its oil and gas sector with two major 2018 auctions: the March 29 non-pre-salt auction and an upcoming June 7 pre-salt auction. In 2017, Brazilian oil regulator

ANP held two auctions that attracted the world’s oil companies to Brazil’s offshore sector – including U.S. companies new to Brazil’s offshore. Energy consultants conservatively estimate that Brazil holds the world’s largest remaining



recoverable ultra-deep offshore oil reserves, with 20.4 billion economically-recoverable barrels. The United States is the distant second with 8.4 billion barrels of recoverable deep-water offshore oil. Some energy analysts believe that as pre-salt fields are fully

explored by IOCs, Brazil’s recoverable deep water fields could yield between 40 and 60 billion barrels of recoverable oil.

On March 29, ANP repeated 2017 auction successes by offering 47 offshore and 21 onshore blocks in the 15th auction round. U.S. firms won oil and gas blocks, bidding (continued on page 3)

Colombia: 4G Highway Program Grows

The Colombian government’s Fourth Generation (“4G”) Private-Public Partnership (PPP) highway program advanced slowly over the last year, with 12 of the 30 highways—or 44 percent of the \$15.1 billion program—having signed project financing agreements and meeting all conditions to enable full

funding for construction activities.

The National Infrastructure Agency (ANI) reports that 4G works will generate 120,000 direct jobs during the construction phase, and 690,000 indirect jobs upon completion. The Colombian government estimates that the 4G program could boost Colombian GDP by 0.6

percent in 2018 and 2019, and about 5 percent in the long term, due to increased imports, exports, and domestic trade enabled by lower transportation costs. According to government projections, the majority of 4G roadways will be operational by 2020.

The Colombian government has taken several

creative measures to restore the flow of funds to 4G projects. The most notable move was the passage of the “Infrastructure Law” of December 2017, which clearly specified how ANI will repay good-faith parties for canceled public works contracts going forward, helping to restore the banking sector’s faith in government

Colombia (continued)

infrastructure lending. In another recent initiative, the Finance Ministry announced a draft decree that would allow the National Territorial Entities Pension Fund (FONPEI)—a \$17.2 billion pension system for Colombia’s public-sector employees—to invest up to 10 percent of its portfolio value in debt instruments that fund

4G highway projects. To date, 41 percent of 4G financing has come from local banks, 32 percent from institutional investors, 16 percent from international lenders, and 11 percent from the National Development Fund.

In March, ANI announced 13 additional 4G highways, valued at an estimated \$3.7 billion and expected to fo-

cus on the populous center of the country. These new projects are only in the planning stages, but ANI expects the majority to be tendered as “private initiatives,” in which the winning consortium will receive the return on its investment through collected tolls without any public underwriting. About half of the new funding has been ear-

marked for three 4G highways: a section of the route between Bogota and Bucaramanga, a section of the route between Bogota and Medellin, and a highway connecting the “coffee axis” departments of Tolima, Caldas, Risaralda, and Quindio.



Mexico: Another Successful Upstream Oil Auction

In a win for the current government and the future of Mexico’s energy reforms, the oil and gas industry again brushed aside electoral uncertainty in the March 27 Round 3.1 shallow water auction. International and Mexican energy firms committed \$8.6 billion in “potential investments,” which, according to the Mexican authorities, is the total investment of the contracts assuming commercial quantities of oil and gas resources are discovered in every block. This builds on the \$93 billion in contracts awarded in January’s highly successful Round

2.4 deep water auction. Ahead of the latest auction, the Secretariat of Energy (SENER) predicted the latest auction would result in contracts worth \$3.8 billion in “potential investment.” The “minimum investment,” the amount of investment required to carry out the minimum exploration activities outlined in the contracts, resulting from Round 3.1 was \$442 million. According to the National Hydrocarbons Commission (CNH), the 16 contracts awarded in Round 3.1 would begin producing oil and gas in 2022, reaching peak production of 280,000 barrels

of oil per day (bpd) by 2025, representing nearly 15 percent of Pemex’s (the state-owned oil company’s) current production of about 1.9 million bpd.

The Mexican press focused on the Pemex’s success, with the state-owned oil company winning seven of the 16 blocks awarded. Unlike Round 2.4, in which one European company dominated the bidding, Round 3.1 saw a wide range of companies competing and winning. Europe was well represented with UK, Germany, Spain, France, Italy, the Netherlands, and

Russia all winning blocks. No U.S. based companies participated.

Several industry experts suggested that the Tampico-Misantla-Veracruz regions did not receive as much interest for three principal reasons: 1) lack of existing infrastructure to support exploration and production activities; 2) lack of drilling data; and 3) the likelihood of blocks holding natural gas (as opposed to the more desirable crude oil). This final point is especially important as Mexican authorities continue trying to attract investment to develop the country’s natural gas resources.

on 22 of the 47 offshore blocks offered. The highest-bid blocks were those adjacent to pre-salt fields in the Santos and Campos basins, with U.S. companies alone providing 40 percent of the total bonus payments of the auction.

In an unexpected decision the day before the 15th round, Brazil's Supreme

Audit Court (TCU) ruled that two of the highest-value blocks adjacent to the pre-salt area would be removed from auction. The TCU decision explained that Brazil would receive more revenue from these blocks were they to be included in upcoming pre-salt auctions under a different type of contract. ANP

will auction those blocks off on September 28, 2018.

Echoing ANP's sequential strategy in 2017, the March auction served as a warm-up for the upcoming June pre-salt auction that will include five blocks in the prolific Santos and Campos basins. Energy

analysts forecast June bidding to exceed the October 2017 pre-salt auction, when 10 IOCs paid \$ 1.8 billion in exploration bonuses and high profit oil percentages.



Brazil: Can Energy Storage Help the Power System Transition to the Future?

Brazil's electricity sector, traditionally dependent on large hydro, is in the midst of a rapid transformation. Experts note that worsening hydrologic conditions – characterized by depleted hydroelectric reservoirs and prolonged drought conditions – have caused the government of Brazil to rethink its electric energy matrix. As part of its Paris Accord commitments, Brazil plans to increase the share of non-hydro renewables in its energy mix to 23 percent by 2030, compared to 9 percent now. The Brazilian Energy Research Company

(EPE) recently released its ten-year energy forecast (PDE 2026), which expects installed generating capacity from non-hydro renewables to increase 132 percent by 2026. Recent energy auctions for solar, wind, and natural gas-fired power also signal that Brazil's non-hydro energy sector is "open for business" to international investors. As this transition takes place, however, Brazil remains dependent on hydro to meet approximately 65-75 percent of its electricity demand.

Sector analysts note that

Brazil's future energy security will depend in part on new energy storage technologies, including large-scale battery systems, to balance intermittent sources like wind and solar with costly (but dispatchable) thermoelectric generation. Unlike wind and solar, thermoelectric generation is referred to as "dispatchable," since gas-fired power plants can quickly be ramped up and down based on real time electricity demand. Brazil's wind potential makes energy storage solutions especially attractive. Intermittent wind power meets 8 per-

cent of Brazil's average total energy demand, but on especially windy days, it has provided over 60 percent of peak demand in Brazil's northeast. The challenge, experts note, is capturing and storing Brazil's abundant wind and solar resources for evening use, when residential electricity demand peaks.

In April 2017, a French electric utility company announced plans for a 5 megawatt (MW) wind-solar-battery hybrid pilot project in Santa Catarina State, paving the way for future hybrid generation-plus-storage projects in Brazil. In São Paulo state,



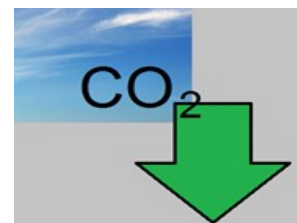
Brazil: (continued from page 3)

power companies are investing in energy storage research and development to test new storage technologies on the Brazilian grid, including iron flow and zinc-based bat-

teries. In 2017, a São Paulo-based power company launched a \$20 million energy storage research program to learn how energy storage can optimize power genera-

tion from wind and solar. Although the current installed capacity of grid-connected non-hydro energy storage is negligible, Brazil's PDE 2026 forecasts the addition of

over 12 GW of new energy storage and high demand “peaker” resources by 2026.



Brazil: Bitcoin, Blockchain Draw Investor Allure

Spurred by rising prices and sustained by Brazilians' desire for alternatives to the traditional financial system, interest in bitcoin has surged since 2016. The soaring interest in bitcoin and the blockchain technology that serves as the virtual currency's backbone has led to a burgeoning industry of exchanges and investment advisors in Sao Paulo. Brazil's bitcoin entrepreneurs are young, English-speaking, and optimistic about the potential for cryptocurrencies. They see virtual currencies and blockchain technology as transforming the way Brazilians will bank, invest, and pay for everyday items. As of December 2017, local press re-

ported Brazil had 1.4 million registered accounts on bitcoin exchanges, a number that surely has grown as bitcoin continues to register strong interest. According to a Brazilian bitcoin tracking website, the value of bitcoin trades in Brazil catapulted from just over \$100 million in 2016 to \$2.5 billion in 2017, drawing young entrepreneurs from Brazil's financial capital into the industry. Several bitcoin exchanges have opened in the past year, and experts forecast continued growth and increasing competition in the sector, with Brazil's largest financial services firm set to open an exchange this year. As the industry has grown, market players have

formed multiple lobbying groups to promote their interests. Industry experts say bitcoin dominates the cryptocurrency market in Brazil because of its high name recognition and trust relative to other virtual currencies.

Reasons for Brazilians' interest in bitcoin go far beyond its recent price spike and speak to several unique characteristics that mark the country as a ripe market for virtual currencies. Many Brazilians are distrustful of the traditional financial system and still recall the financial turmoil, hyperinflation, and multiple currencies of the 1990s. Therefore, finding investment vehicles outside of the government's control offer appeal. Bra-

zilians are also heavy technology users—they spend an average of four hours and twenty minutes accessing the internet on smartphones, the second-highest rate worldwide—and are eager to escape the inconveniences and fraud risk of brick and mortar banks. Bitcoin is attractive to those without large sums of money to invest, as many Brazilians enter the market with sums of \$100 or less, an amount often too small to invest in a traditional bank. Indeed, experts say there is no standard profile of bitcoin investor, with Brazilians from nearly every demographic getting involved. Finally, with benchmark interest rates at record lows, investors accustomed to earning double-digit returns on

Brazil: (continued from page 4)

government securities are looking for higher-yielding alternatives.

Local experts have a measured outlook on the impact that bitcoin will have on Brazil's traditional financial sector. Brazil's banking federation (FEBRABAN) said bitcoin exchanges present almost no direct competition to traditional banks because they still represent a minute portion of the financial sector, and because bitcoin is used much more as an investment vehicle than as a means of payment or store of value. Indeed few Brazilians businesses accept bitcoin or other cryptocurrencies as a form of payment, and most in the cryptocurrency market acknowledge that banks will stick around by adapting their business models to new technology in an attempt confront competition. Brazilian banks are interested in the potential of blockchain to offer better and more secure services.

Players in the Brazilian bitcoin market remain anxious to see how virtual currencies will be regulated. No consensus exists on whether bitcoin should be considered a currency, in which case regulatory responsibility would fall to the Brazilian Central Bank (BCB), or a financial asset, granting authority to the CVM, Brazil's Securities and Exchange Commission. Current dialogue in Congress is focused on the BCB, which some say is conscious of the risks, but hesitant to regulate the sector until it becomes a larger part of the financial infrastructure. In January, the CVM banned local investment funds from purchasing cryptocurrencies, but more recently it said it would publish guidance on the legal limitations. For their part, the exchanges point to regulatory structures in countries such as Germany, Japan, and Switzerland, where cryptocurrencies are lightly regulated and

taxed at the point of sale, as models.

At an event hosted by the Sao Paulo State Federation of Industries (FIESP), experts optimistic on the outlook for digital currencies highlighted several challenges that the industry is looking to overcome in the next several years. The first is usability: many interested Brazilians have never invested in any financial instrument before, let alone one as complex and volatile as bitcoin. To succeed, there needs to be more education for the public on what bitcoin is, how it works, and what the risks are. Another challenge is the speed of the technology, which some compare to the dial-up stage of the internet. Bitcoin's underlying blockchain technology can process 5-7 transactions per second, compared to other financial companies' peak capacity of tens of thousands, limiting bitcoin's practical use. Advances in both areas could help

overcome perhaps the largest challenge to bitcoin: making it both a reliable store of value and an acceptable medium of exchange.

The application of blockchain technology in Brazil so far has occurred mostly in the financial sector, but experts see many ways in which blockchain would be particularly useful in the Brazilian context. Several noted remittances as an area of promise; it is difficult and time-consuming to transfer money overseas and convert it into foreign currency, but blockchain could simplify the process and reduce the amount of time from days to minutes. Brazil's credit and debit card payment system, in which several players take a bite out of the transaction, could benefit from a single platform that cuts out the middle man.



Other resources for anyone interested in overseas business news:

For **Caribbean and Latin American Markets**, the Department of Commerce has many resources to assist U.S. firms including market research, trade show calendars, trade delegation calendars, etc. Check out their “Trade Americas” and “Look South” websites:

<http://export.gov/tradeamericas/index.asp>

<http://export.gov/tradeamericas/looksouth/index.asp>



The U.S. Government’s main website to assist U.S. businesses at home and abroad. URL at <http://business.usa.gov/>

PLEASE TELL US HOW WE ARE DOING

Overseas Business Insights is for you. Tell us how we can improve it, what you think of it, what you are interested in hearing about in the future, etc.

Contact us at WHA-OBI@state.gov

All issues of Overseas Business Insights are available upon request. Just email us at the above address.



The Business Information Database System (BIDS) is a portal built to help U.S. businesses learn about significant international commercial opportunities. The site connects U.S. business to detailed information about each project as well as information to contact U.S. embassies overseas. URL at <http://bids.state.gov/>



The Direct Line program provides a unique opportunity for American businesses, particularly small- and medium-sized enterprises, to engage directly via webcast with U.S. Ambassadors overseas. The program is open to U.S. companies – whether they are already in the country where the Ambassador serves or if they are interested in expanding their businesses there. Webcasts will vary in topic according to the specific needs for business in a given country. URL at <http://www.state.gov/directline/>

DISCLAIMER: The U.S. Department of State provides the information contained in the Overseas Business Insights newsletter solely for our readers’ information. Every effort has been made to provide accurate and complete information. However, neither the U.S. government nor the Department of State guarantees or assumes any legal liability for the accuracy, completeness, or usefulness of any information disclosed in the Overseas Business Insights newsletter.

