

A Silver Lining in Argentina's Financial Crisis: An Opportunity to Rethink Its Energy Plan

Current Plan Ignores Market Trends and Increasing Advantages of Renewables

Executive Summary

A silver lining to Argentina's financial crisis is an opportunity to rethink its faltering energy plan, now overly dependent on unconventional ("fracking") oil and gas reserves in Vaca Muerta, located in northern Patagonia. A newly constructed plan could become an important foundation to put Argentina's house in order with a more strategically prudent use of oil and gas assets that reduces domestic prices while stimulating economic growth. The Vaca Muerta energy resource alone cannot revive the Argentine economy, but is an important asset in developing a balanced energy plan that includes abundant solar and wind resources.



Argentina's 2018 energy plan¹ called for a doubling of natural gas and oil production within five years. Most of the production growth was expected to come from unconventional production in Vaca Muerta with special involvement of private companies. Rising production levels were to be achieved through a partnership of large, global oil companies, smaller Argentinian-based producers and the Argentine government. The goal was to produce oil and gas at levels that would both meet Argentina's domestic needs and allow for an expansion of export sales. The profits from exports could then be used to enhance the Argentine economy and create jobs and fiscal stability.

The plan, however, is failing to meet its goals and has become a drag on Argentina's economic recovery. The recent political and financial upheaval, including large stock losses and bond downgrades for Argentine energy players² also threatens the

¹ Secretaría de Gobierno de Energía. Argentina Energy Plan Guidelines. 2018.

² Moody's Downgrades Argentine Companies' Ratings Places Under Review. September 3, 2019.

continued participation of foreign investors.³ Meanwhile, the price of oil and gas for Argentine consumers remains unacceptably high. The Vaca Muerta asset is at risk of becoming an Argentine liability.⁴

Why should Argentina rethink its energy plan?

• Fracking is not a financially viable business. The business case for fracking is unproven after a decade of experience in the United States, the only place where fracking has been executed at scale. Fracking has created a production boom in both natural gas and oil. But it has been a financial bust. Exploration and production (E&P) companies have faced a rash of bankruptcies⁵ after a decade of negative cash flows.⁶ More bankruptcies are on the horizon for oil and gas companies as \$150 billion of bonds mature between now and 2022.⁷

E&P companies claim they can extract oil and gas profitably: can they?

Although the E&P sector continues to decline in value in the United States, production growth continues, which has enticed large oil majors to enter this market. They claim they can extract the oil and gas more profitably and effectively than smaller, nimbler companies that have failed. The question is, can they? ExxonMobil, one of the leaders in the Permian Basin, had negative cash flow last quarter and has been removed from its decades-long leadership position in the Standard & Poor's 500 index.⁸ The success of its investments in the Permian Basin today are at best, uncertain. The U.S. unconventional oil and gas experience has never been a financial success.

• Oil and gas production in Argentina has been substantially below plan. Natural gas and oil production has been significantly below plan through mid-2019, averaging roughly 5% per year growth, when the plan calls for 14-15% annual growth. The plan assumes that Argentina's abundant supply of oil and gas allows the country to set aggressive goals. The design of the plan is unachievable, having failed to account for high production costs, unavailable technological assets, unstable policies, weak foreign partners

³ S&P Global. Argentina seeks to stabilize currency as oil companies fret about price freeze. August 20, 2019.

⁴ Moody's Moody's Downgrades Argentine Companies' Ratings Places Under Review. September 3, 2019.

⁵ Haynes & Boone. Oil Patch Bankruptcy Monitor. August 12, 2019.

⁶ Sightline/IEEFA. U.S. fracking sector disappoints again. August 19, 2019.

⁷ S&P Global Market Intelligence. Another Brick in the Wall for the U.S. Oil and Gas Industry as Debt Maturities Build Through 2024. July 18, 2019.

⁸ Bloomberg. Exxon Poised to Drop From S&P 500's Top 10 for First Time Ever. August 30, 2019.

and a changing global market. Current conditions do not support such aggressive production goals.

Government subsidies for natural gas production have created a glut.

At over 50%, natural gas is the largest component of Argentina's energy mix. To meet domestic demand and reduce the need for imports, the government enacted a plan to subsidize companies that increased production of unconventional natural gas, setting a floor price of \$7.50/MMBtu for 2018. These policies led to production increases. However, gas consumption is highly seasonal. The unstable domestic market forces producers to scramble to rationalize production as demand rises and falls. Producers must either reduce production at some facilities, a costly process, or seek new outlets for their gas in unproven markets.

More modest production goals tied to market reforms to rationalize the market and stabilize prices will support Argentina's economic growth. Surplus capacity should be used to keep domestic prices affordable on a permanent basis.

 Government subsidies have supported foreign companies that have not delivered benefits to

Argentina. The recent attempt to subsidize natural gas production with government subsidies has proven unaffordable and ineffective. It is unaffordable because the subsidies are expensive and place undue stress on Argentina's cash-strapped budgets. Production subsidies have been reduced. The result is that many foreign companies have stepped back from their commitments,9 while some have even initiated litigation against the Argentine government. The bond markets called the move "credit-negative" 10 for companies in Argentina. The subsidies also revealed that the largest investor in Vaca Muerta has been the government of Argentina—not the foreign partners.11

Infrastructure needed for exporting natural gas will require some US\$50 billion.

⁹ Financial Times. Macri's energy reverse unnerves Argentina's shale investors. June 28, 2018.

¹⁰ BAE Negocios. Moody's criticó el recorte de subsidios a Vaca Muerta. June 2, 2019.

¹¹ IEEFA. Financial Risks Cloud Development of Argentina's Vaca Muerta Oil and Gas Reserves. T.Sanzillo, K. Hipple. March 2019.

- Exporting natural gas and oil will require substantial government-funded infrastructure projects. Developing Vaca Muerta's oil and gas reserves and supporting an export market will require roughly US\$50 billion. At this time, there is no money to support such infrastructure expansion. Vaca Muerta is land-locked, and rail, roads, and pipelines are needed. But infrastructure projects have been stalled over the past two years and Argentina's foreign partners have been reluctant to invest in these projects due to unstable political, currency and inflationary factors. The alternative is for costly infrastructure projects to be paid for by Argentine taxpayers at a time when the country can least afford more public debt. And it would be difficult to obtain public support for such expenditures as the benefits of these investments (under current agreements) are likely to accrue to global oil and gas interests or a new and unpopular loan arrangement with the International Monetary Fund.
- Focus on export market for oil and gas is ill-timed. The country's energy plans included exports of oil and gas to earn dollarized revenues. This strategy was ill-conceived and ill-timed. Argentina is seeking to become a global player when global oil and gas markets are in a state of oversupply and low prices and the LNG glut are forcing down natural gas prices. For example, this month, Europe has seen natural gas prices that are lower¹² than the Henry Hub prices in the United States (Argentina sets its pricing at Henry Hub levels). Oil prices are volatile and trending lower since 2014 and likely to remain lower for longer periods. With new players on the global oil and gas stage, state-of-the-art technological assets unavailable, and instability in the OPEC countries, Argentina's aggressive oil and gas production goals are unlikely to succeed.
- Renewable energy penetration is growing around the world. There may be more opportunities in renewable energy than when Argentina's energy plan was crafted two years ago. Argentine leaders should now revisit the global market outlook so that the country could achieve a balanced energy plan using market forces and prudent policy to support its domestic economic recovery. In 2018, renewable energy accounted for 12.9% of global electricity internationally. IEEFA is charting progress made every day around the world in this sector.

Once built, renewable energy has no fuel cost.

¹² Oilprice.com. European Gas Prices Plunge To 10-Year Low. September 4, 2019.

¹³ Frankfurt School/UNEP Collaborating Centre. Global Trends in Renewable Energy Investment. 2019.

¹⁴ IEEFA. Reports Category: Renewables.

• Renewable energy is deflationary, which will help offset Argentina's rampant inflation. Even before the latest financial crisis, Argentina's inflation rate in July was over 50%. An energy plan that promotes renewable energy and prudent use of oil and gas assets will reduce inflationary pressures in the energy sector. Once built, renewable energy has no fuel cost. And renewable costs are expected to continue to fall due to economies of scale and accelerating technology gains.

A Second Chance Energy Dialogue

The fundamental flaw in the Argentine Energy Plan is its assumption that its abundance of fossil fuel resources will automatically generate jobs and dollars to stabilize Argentina's finances.

The benefits of abundant oil and gas reserves are not automatic or free. In today's market, extracting value from oil and gas reserves is challenging. There is more competition than ever from other producers. Established, already stressed trade arrangements do not include Argentina. Technological competition is robust— both between oil and gas producers and between renewable energy and fossil fuels. A generalized oversupply has created a low-price environment. This is a demanding macro environment in which to operate.

Argentina's economy needs to be stabilized and steady. Deflationary energy policies can help. The country has two resources in this area. The first, an oversupply of oil and gas, can help lower prices. The second, abundant natural resources, can support the expansion of wind and solar industries. Used together, these energy resources represent energy abundance and can establish a powerful lower price structure.

Energy resources should primarily focus on improving Argentina's domestic economy. A new energy plan will include lower—and achievable—oil and gas production goals.

The current energy plan is overly ambitious, with unrealistic oil and gas production goals, and is unattainable. It is a symbol of failure and evidence of disarray.

Energy resources should focus on strengthening Argentina's domestic economy.

A silver lining of the financial crisis is that Argentina can revise its energy plan. The unconventional oil and gas model has not produced profits in the United States. Financial success from unconventional production in Vaca Muerta is even more remote. Argentina could instead change course and aim toward more balanced energy policies that would be a down payment on the country's economic recovery.

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The Institute for Energy Economics and Financial Analysis conducts research and analyses on financial and economic issues related to energy and the environment. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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