

Opportunities open for huge Argentine shale gas reserves as quest begins for onshore LNG

Liliana Diaz, Managing Director of FTI Consulting, analyses future of Argentine shale and energy investment

Argentine state-backed energy company YPF sold the country's first LNG shipment from a floating liquefaction facility, "Tango FLNG", and this was quickly followed by its submission to the government of a request to promote development of an onshore LNG liquefaction plant.

The proposals are for a pre-front-end engineering design for a liquefaction plant with 5 million tonnes per annum of LNG capacity and with the option to expand to 10 MTPA. This could also be the blueprint for other plants.

Resources

In that context, developing the country's large reserves of natural gas (both in shale and tight gas reservoirs) presents an opportunity that should transcend political dimensions and overcome short-term pricing woes.

Though President Mauricio Macri's recent commitment to energy sector reform has wobbled of late because of fiscal difficulties and popular discontent, a massive blackout on June 16, 2019, emphasized the need to align the government's priorities with the needs of consumers and energy sector investors.

With this in mind, efforts to consolidate long-term consumer demand and open export venues necessary to sweeten the natural gas investment proposition are afoot.

Recent developments such as difficulties with servicing its sovereign debt have investors concerned that Argentina is backsliding after years of market-oriented reform. Much will be made clearer by the 2019 election due on October 27.

Yet, whoever takes the Argentine helm will be pressed to halt the country's economic downturn and assuage international lenders and investors that are key to kick-starting the economy and the energy industry.

Interest from both state-owned YPF and private investors resulted in a 95 percent unconventional gas production growth from May 2017 to May 2019 (or an 8 percent compounded annual growth rate).

Increased production coupled with lagging demand has seen prices drop to uneconomical levels (below US\$3.50 per million British thermal units (MMBtu).

In February 2019, fiscal troubles led the government to pull-back on its subsidy scheme, undermining development economics and dampening investor interest.

Some producers denounced the move (notably Tecpetrol), while others such as YPF curtailed production soon thereafter.

This juncture comes at a time when the sector cannot afford it, without having a negative impact on hard-won momentum. The gas market is going through a transition, specifically with regards to price formation.

While productivity has improved as a result of increased fracking stages and longer laterals, production costs at the Vaca Muerta shale formation are still too high for international markets.

For the first quarter of 2019, YPF (the big presence in the basin) reported declining costs of \$3.72 per MMBtu, down from \$4.65 per MMBtu a year earlier.

Efficiencies

Further reductions will result in increased efficiency in drilling and completion.

To compete with US production for LNG shipments to Asian and European markets, costs need to be around \$2.5 per MMBtu.

Gustavo Lopetegui, Argentina's Energy Minister, has indicated that he believes the 3,000 drilled wells milestone could constitute an inflection point for the oil and gas sector as a whole.

For now, only about 1,000 wells have been drilled, 300 or so of which have been fracked in the Vaca Muerta Shale.

In addition to reducing production costs, further private investment is sorely needed to overcome the transportation bottlenecks which prevent reaching and broadening consumption markets.

At current capacity, the transportation infrastructure is at its limit. Though in late July, the government launched the tender for a \$2 billion pipeline from Neuquén province, further capacity cannot come soon enough.

VM's development cost benchmark against Permian



Vaca Muerta Shale development costs compared with Permian Basin in US

New infrastructure cannot be financed by the government at the necessary pace.

It is then a question of incentives for investors with the appropriate wherewithal.

Projects

In this regard two key actors are worth mentioning: ExxonMobil and YPF. In June 2019, Exxon announced it would proceed with long-term investments encompassing export infrastructure in its Bajo del Choique-La Invernada for the development of both oil and associated gas.

The June 2019 Tango FLNG debut and future LNG plans will stand the country in good stead.

This newly announced impetus from industry leaders may indicate a turning point, with private investment concluding that conditions are ripe to capture downstream profits, particularly from export markets.

Skeptics might argue it is too soon for optimism given the present political uncertainty, yet the Macri government will have a lot to show in terms of

furthering commercial and legal stability by the time the next presidential term begins.

On one hand, the government is looking to rebalance the domestic market to buttress demand.

On the other, Argentina is entering into international trade agreements that enshrine rights for investors under international law.

We explore these two developments

and their importance in the next paragraphs. Increased production coupled with seasonal fluctuations in residential consumption are a problem for long-term growth prospects in the industry.

Both the government and investors agree that consumer markets need to expand in order to encourage private investment in transportation infrastructure.

The bulk of domestic consumption is in the power sector, which supports about 38 percent of demand (2018).

In the recent past however, the power generation subsector was hampered by price controls that disincentivized investment in installed capacity.

Starting in 2017, the government has slowly introduced a number of reforms to encourage competition (auctioning new thermal and renewable generation capacity) and cost-reflective pricing (through the unfreezing of wholesale and residential rates and a revamp of the market design and price formation mechanism).

Reform efforts are expected to revive the sector and unleash market growth.

Overhaul

While further reforms of the power sector are anticipated, other natural gas consumption sectors could also be revamped, including industrial processing and transportation (constituting 25 percent and 5.7 percent of demand respectively in 2017).

The lion's share of industrial processing covers three activities: refineries (20.1 percent), steelworks (18.9

percent) and chemical and petrochemical production (17.9 percent).

Petrochemicals in particular present an opportunity for growth given government plans to put a gas pipeline up for bidding, the first stage of which will connect from Neuquén province to the Atlantic coast near the petrochemical development pole of Bahía Blanca by 2021.

Indeed, in May 2019 as part of its asset divestment process program, Petrobras announced its intention to sell its 34 percent stake in Compañía MEGA S.A., a petrochemical company at Bahía Blanca highlighting “studies to increase the plants’ capacity and gas-supply pipelines are already underway.”

In summary, further domestic market growth is possible. But what about the export market?

For investors, uncertainty is always a major concern. Argentina has experienced economic policy swings and macroeconomic instability in the past decades.

Assurances

As in a Tango dance, Argentina’s temper sometimes makes it difficult to keep a flawless rhythm. Investors, however, may find some assurance coming from Argentina’s international trade agreements (FTAs).

One notable and recent example is the FTA with Chile, which entered into force on May 1, 2019. Pursuant to its provisions, cross-border trade in services and private investment by each other’s nationals will enjoy substantive protections under international law.

Those protections will empower and complement an existing bilateral

agreement requiring both countries to establish domestic regimes to regulate the power and natural gas trade before the end of 2019 and pursuant to which firm exports were authorized by Argentina in August.

Chile question

Furthermore, those protections will be enshrined in an international treaty that neither country can unilaterally breach without triggering independent dispute resolution mechanisms and bringing to bear the importance of a broader commercial relationship.

Yet integration efforts in Latin America’s Southern Cone are riddled with great expectations and unmet potential. Argentina in the past exported both power and gas to Chile only to run out of both in the aftermath of the 2001 financial crisis.

The damage from unilateral gas export suspension in 2004 to regional relationships was enormous.

In Chile, a political debate concerning the appropriateness of import dependence from Argentina erupted, and the country decided to peg its energy supply to LNG imports through two LNG regasification facilities.

This time around, however, a greater prize than the Chilean market awaits: Asia. Reaching the Pacific Rim LNG markets is a commercial incentive that might just align both investor and government interests through thick and thin.

Indeed in June 2019 YPF’s export of the country’s first LNG cargo in the Atlantic evidenced the industry’s global aspirations.

Following the U.S. experience, Chile’s

regasification terminals could be retrofitted quickly and in a cost-effective manner to liquify Vaca Muerta’s natural gas and offer Argentine LNG to energy hungry Asian markets.

Asia Pacific natural gas demand is expected to grow in a sustained fashion on the back of China’s thirst for natural gas (China’s demand is expected to triple to 710 billion cubic meters by 2040).

As a result of the Argentina-Chile FTA, the entire LNG supply value chain from well-head to port will be vested with both the domestic and international legal protections that will bring much needed security to private investment.

Priorities

This does not mean Argentinean gas supply to Chile will be free from interruption hence forth.

Indeed, domestic supply will always take priority for Argentina, but increasingly making that choice in a

buoyant natural gas regional market will be unnecessary.

In short, a larger export market, including hungry China, may align the incentives for a sustainable commercial proposition, while investors’ protections enshrined in an international treaty will help assuage fears of an off-tempo Tango.

Opportunity awaits in the Argentine natural sector. Much like the Tango, it is not straightforward nor for the faint of heart. Yet in the mist of political uncertainty, bellwether investors have pushed ahead.

While further private investment along the value chain will be necessary for large-scale development of vast unconventional resources in Vaca Muerta and beyond, the current government has taken steps to unlock domestic consumption and export markets that will make it attractive.

For those still considering investing in Argentina and its Vaca Muerta, it is time to look more closely and assess the opportunities before the Tango ends. ■

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