

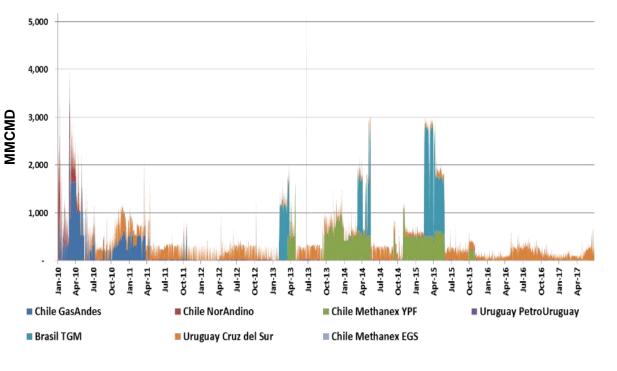
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#### A brief historical review

Gas Energy Latin America (GELA) believes that 2018 will be an iconic year for Argentina, because after 10 years without exports, Argentina once again will export natural gas to Chile in pre-established quantities and time periods.

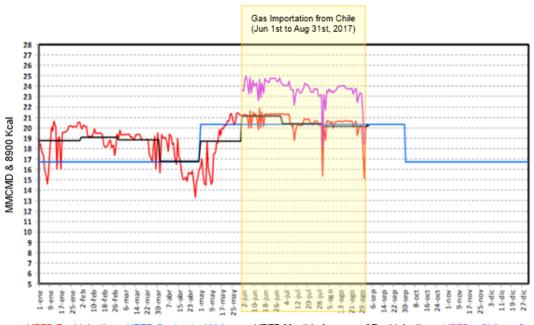
Beginning in 2007 Argentina unilaterally suspended natural gas export contracts with Chile, claiming force majeure causes. Despite the suspension, though, there were small exports to Chile, especially to meet Methanex's demand and some domestic services. In the winter peaks of 2016 and 2017, Argentina actually imported small amounts from Chile. This can be seen in graphs # 1 and # 2.

Graphic # 1. Exports of natural gas from Chile



Source: Enargas, 2017

**Graphic # 2. Imports of natural gas from Chile** 



- YPFB Real Injection - YPFB Contractual Volume - YPFB Monthly Average of Real Injection - YPFB + Chilean Gas

Source: MinEM, 2017

However, the gas trade relationship between these two countries begins to change, when in October of 2017, the 407-E / 2017 Resolution was signed in the cases of emergency supply situations to Chile.

This Resolution of the Ministry of Energy of Argentina authorized the state company Energía Argentina Sociedad Anónima (ENARSA) to supply natural gas to Chile through the company ENAP Refinerías, for a maximum daily amount of 3.5 million cubic meters per day.

The measure was part of ongoing commitments until December 31st, 2017, or until a total maximum amount of 6.0 million cubic meters was completed.

The gas exchange agreement established that "ENARSA shall reimport volumes of natural gas equivalent to those exported through the authorization granted (...) within 30 calendar days from the date of delivery to the buyer", i.e. a swap interruptible mechanism.

Argentina and Chile are interconnected by several gas pipelines from north to south, which undoubtedly allows exchanges taking advantage of the difference in demand according to the seasonality from each of the countries.



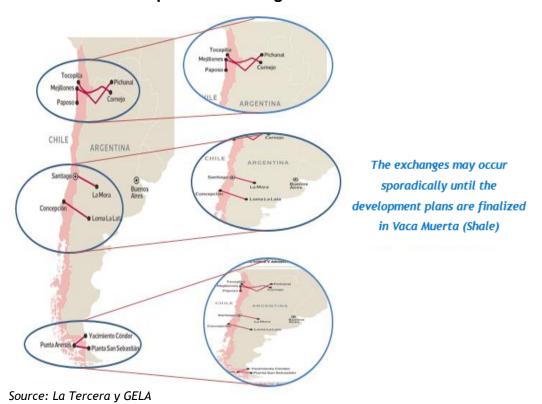
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### **Existing infrastructure handicap**

The big advantage is the idle existing infrastructure capacity between both countries, which is the weakness of the natural gas trade relationship. Currently, there are seven gas pipelines linking both countries: NorAndino and Gas Atacama in the northern zone; Gas Andes in the center; Gasoducto del Pacífico in the Biobío Region; and Posesion 1 and 2 and Frontera gas pipelines in the south of the country.

In the case of electricity, there is a line that connects both countries, which goes from the Antofagasta zone to Salta, and the interconnection feasibility is being studied in five other points of the North and South Center. This can be seen in graph # 3 below.

#### **Graphic #3. Existing infrastructure**



# The export permits granted by Argentina

At the beginning of 2018, the Ministry of Energy of Argentina granted 3 new natural gas exchange permits, this time between private companies:

- 1. Through 493-E Resolution authorized Energy Consulting Services S.A., one of the five largest gas trading companies in Argentina, to export natural gas to Chile to Engie Energía Chile S.A. (EECL), for a maximum daily amount of 2.5 million cubic meters per day for export between ECS S.A. and EECL S.A.
  - The agreement between both private companies is valid until May 15, 2018 or for a maximum delivery of 30.0 million cubic meters, whichever comes first. The supplies foreseen in this authorization may be interrupted in order to guarantee the supply of the Argentina domestic market.
  - It is clarified that ECS company that will export(huh??) the fluid must reimport volumes of natural gas equivalent to those exported within two hundred forty (240) calendar days from the date of delivery.
- 2. Through 492-E / 2017Resolution, the Ministry of Argentina authorized Exxon Mobil Exploration Argentina SRL to export natural gas to Chile, with the obligation to reimport equivalent volumes. Argentina granted an authorization for the export of natural gas to the Chilean company Innergy Soluciones Energéticas S.A. for a maximum daily amount of 30,000 cubic meters. This authorization will be valid until May 31, 2018 or until completing a total maximum amount of 900,000 cubic meters of natural gas.
- 3. Finally, Argentina granted YPF S.A. an authorization for the export of natural gas to Chile, to Methanex, in accordance with the commitments included in the Maquila Agreement signed between YPF and Methanex on November 25, 2016 and its addendums on December 20, 2016 and December 4, 2017, for a volume of up to 1.0 million cubic meters per day that will be in effect until September 30, 2018, or until completing a total maximum amount of 115,000,000 m3 of natural gas. Similar to the previous cases, the permit indicates that deliveries will be conditioned to ensure the priority of supply for the domestic demand in case it is required to interrupt the supply and that the permit is granted with a commitment of re importation of the volumes to be exported.



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## **Gas Energy Latin America Conclusions**

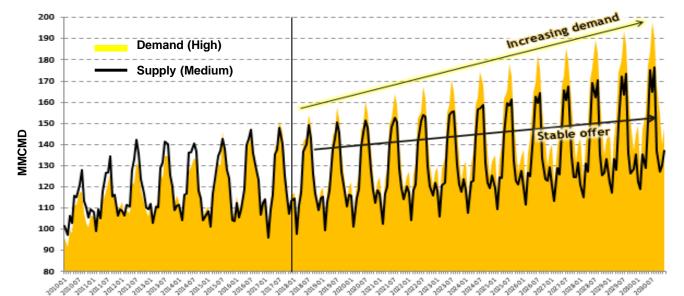
These 3 authorizations for natural gas exchanges, as noted, are interruptible and swap type, i.e., where with no prices and obviously are convenient for both parties. Clearly this also indicates a course that should ultimately lead to an established natural gas market between these two Southern Cone countries.

First, these exchanges not only mean the return of greater gas volumes across the Andes, but they will also help Argentina to decrease the deficit in the energy trade balance, which during the year 2017 amounted to 3.124 million dollars, as of November 2017.

Second, the gas trade allows increasing supply and the subsequent evacuation of natural gas in the summer season, where in Argentina, due to the marked seasonality, demand decreases significantly and will compete with LNG and other energy sources in Chile. This is a positive signal for those who bet on upstream activities in Argentina.

GELA highlights, for example, that there is a production record in El Orejano concession, that has contributed to the supply excess during the summer season. This GELA forecast was already reflected in its Argentinean Multi-client Study released in November 2017 and that can be seen in Graph # 4.

### **Graphic #4. Supply Demand Forecast**



Finally, it should be noted that the daily and total permit limits are still relatively low: YPF: 1,000,000 mmcmd, EXXON: 35,000 mmcmd, ENGIE: 2,500,000 mmcmd

GELA believes that part of YPF's production is paralyzed due to lack of demand while this newsletter is being written. To emphasize, just 3 weeks ago YPF completed a legal case against CIADI paying 114 million dollars to AES Tete of Uruguayana, Brazil, a situation that in the future would allow to supply once again Argentinian natural gas to the thermal power plant that was built with relying on gas supply from Argentina. Everything indicates that the flows to Brazil could be restored sooner than later.

The vision of GELA is that after 10 years of insignificant and sporadic flows and without long-term contracts, Chile and Argentina are adjusting technical and commercial agreements to prepare for upcoming serious bilateral agreements of export and import trade as market dynamics change. This increased trade will accompany progressive increases in Vaca Muerta production and Well 129 in the Province of Santa Cruz.

# The strategic plan of the Argentinian government

GELA understands that Argentina aims to flood the natural gas market from different sources and thus lower prices and allow the market do its job. This avoids any political involvement related to the political volume assignments and setting prices. That is, Argentina will stimulate national production of non-conventional gas, mainly from the Neuquén Province, conventional gas, mainly off shore in the Austral Basin, LNG from the Pacific and Atlantic oceans and gas from Bolivia (that will have in 2020 additional volumes after conclusion of supply agreement with Brazil that could be arbitrated).

Argentina energy matrix depends 70% on natural gas, both for the generation of electricity and residential, commercial, NGV and industrial consumption. Only additional supply from different sources will result in more competitive prices. This, in turn, should lower the energy trade deficit that has overwhelmed them for more than a decade.