

***APPLIED ECONOMICS – REGULATORY CHANGES IN GAS TRANSPORTATION
SECTOR
A PROPOSAL FOR THE MODIFICATION OF THE REGULATORY FRAMEWORK FOR
THE NATURAL GAS INDUSTRY IN ARGENTINA***

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Overview

In Argentina, natural gas producing companies supply the market with gas extracted from five different basins: Norte, Neuquén, Chubut, Santa Cruz y Tierra del Fuego.

Natural gas transporters are regulated companies that earn a fee by providing the transportation service to gas distribution companies, that are also regulated companies that pass through these amounts to consumers.

Previous to 2001's economic crisis Argentina's natural gas network required that transportation capacity were above the average demand in order to fulfill household's peak consumption that occurred during winter time. This situation was incorporated to the gas transportation fee structure through the creation of a load factor. This load factor was set initially on 0.35 for household consumers and 0.5 for non-household consumers, such that, if the transportation fee was T Argentine pesos a household consumer shall pay $T/0.35$ (almost 3 times the transportation fee) and non-household consumers shall pay twice that fee.

In the year 2004 Argentina's Government created ENARSA, a state owned company and in 2008 this company started importing Liquefied Natural Gas to meet a growing energy demand that resulted in an annual deficit. The natural gas imported by ENARSA is gasified and injected to the network in Bahía Blanca and Escobar regasification facilities, both in Buenos Aires Province.

This paper intends to assess the need to modify the current regulatory framework caused by the creation of ENARSA as a new stakeholder within the natural gas market, particularly the current fee structure for regulated companies. For instance, a consumer located in Gran Buenos Aires is provided with natural gas injected in Escobar regasification facility straight to Buenos Aires Province network but is charged with a transportation fee as if the fluid was transported from Norte basin or Neuquén basin.

Furthermore, it will be demonstrated hereby that transporter's pipelines load curves were flatter in 2016 than they were in year 2000 and that this effect is a consequence of ENARSA's gas injection near the locations of higher demand. Those demand peaks that were formerly supplied from Neuquén basin are now supplied by ENARSA's imported gas.

Methods

The present work was performed using a methodology of tool based case study, using qualitative and quantitative indicators to process data collected from different sources.

Results

This paper is aimed at assessing a modification of the current natural gas market regulatory framework that may increase household consumer's welfare based on the implementation of a lower fee structure.

Conclusions

The main conclusion arising from this analysis is that the winter peaking in natural gas demand is due to "priority demand" and so shall be supplied with gasified LNG and charged a fee equal to its marginal cost. However, the

higher cost passed through to these consumers (determined by the import parity price of LNG) may be compensated by lower transportation cost based on a new configuration of the supplier basins according to the present proposal. That is, the Ministry of Energy and Mining shall determine a price for the natural gas injected in Escobar and Bahía Blanca facilities equal to the import price of LNG plus its own gasification costs to phase out subsidies, meanwhile the ENARGAS shall set transportation fees according to the new configuration of gas injection.

This new configuration of the gas network to attend the provision for household's consumption during winter peaking and the new fee structure that benefitted this segment, may also generate an excess of firm transportation capacity that was redirected to non-priority brokers such as industries, traders and thermal power plants. Furthermore, natural gas producers may allocate a higher share of their production to non-priority consumers by the execution of long term contracts (including supply and demand provisions under "take or pay" and "delivery or pay" schemes) reducing uncertainty in performing long term financial planning, and fostering their ability to engage in the development of non-conventional production projects, such as "Vaca Muerta".