

ALTERNATIVES AND CHALLENGES TO THE MODEL OF ENTRY AND EXIT IN BRAZILIAN NATURAL GAS TRANSPORTATION

Karine Alves de Siqueira, Fluminense Federal University and ANP, (55 21) 981816544, kragalveas@hotmail.com

Luciano Losekann, Fluminense Federal University, (55 21) 996023831, luciano.dias.losekann@gmail.com

Marcelo Colomer Ferraro, Federal University of Rio de Janeiro, (55 21) 39385269, marcelo.colomer@gmail.com

Overview

In order to create a solid framework aimed at promoting competition in the natural gas industry, regulation of the natural gas transportation segment in Brazil has been undergoing major transformations. With regard specifically to transport pipelines, National Petroleum, Natural Gas and Biofuels Agency (ANP) has focused on the implementation of greater transparency regarding the conditions of the provision of transport services and the effectiveness of the access to the grid.

In addition, Petrobras has recently announced the plan to reduce its relative participation in some stages of the natural gas industry, what brings important challenges to the sector. The sale of the company's assets in the natural gas industry, at the same time as it contributes to the reduction of barriers to entry of new investors brings new regulatory demands, requiring a more effective performance of the regulatory and antitrust bodies. In this context, a reform of the sector's regulatory and institutional framework is needed to create a new business environment able of attracting private investors.

Given the relevance of the transportation segment in the composition of costs in the natural gas industry, properly dimensioning the tariff that will be used has a prominent role. Criteria such as reflecting transport costs, promoting competition, providing transparency, stimulating long-term investment and ease of articulation in relation to the combination of a multi-agent tariff are some of the criteria that should be used to choose the great tariff.

The objective of this paper is to present an introduction to the regulation of gas transportation in Brazil, mainly under the tariff bias and the recent evolution of tariffs. It is expected to arrive at a tariff model that is more appropriate to the Brazilian case, in order to generate economic efficiency in this segment. To do so, it is important to analyze the types of tariffs adopted by the gas industries in Europe and the United States that delimit the tendency of the world industry.

Methods

From a neo-institutionalist view, the definition of new competition standards for the natural gas industry requires the development of institutional structures that allow the reduction of transaction costs associated with transport capacity contracts. In this context, the importance of the regulatory state's role in establishing a regulatory framework capable of stimulating the efficient allocation of the natural gas transportation service is highlighted. In order to verify the best practices used in the natural gas industry, the American and European experiences will be analyzed. The methodological procedure consists of bibliographical and documentary research based on the theoretical discussion of the material raised.

Results

The natural gas transportation segment is one of the main bottlenecks for the development of this market in Brazil. The Brazilian natural gas industry is still incipient, there is a dominant company in all segments of the chain and the regulatory framework limits the power of action of the regulatory agency. These characteristics are strongly reflected in the natural gas transportation segment.

Faced with prospects for the development of new markets for natural gas, and in order to achieve the economic efficiency of the industry, the different types of tariffs schemes have advantages and limitations.

Postal tariffs, while favoring the development of new markets, do not reflect the costs associated with transportation, not stimulating economic efficiency, causing cross-subsidies between consumers and hindering energy integration between regions. On the other hand, distance-based tariffs encourages economic efficiency, but do not develop some natural gas markets in regions far from production centers.

Entry-exit tariff system is able to handle the most varied transport network topologies, and is applicable for both simple networks with well-defined flows and complex networks whose flows change frequently. However, the application of entry-exit tariff is not compatible with systematic physical congestion of certain parts of the system. If

this occurs, the recommendation is that the section be treated as an interconnection between two different entry and exit systems.

Depending on how it is designed, this methodology can allow shippers to contract capacity to enter the system, without necessarily compromising at the same time with the contracting of equivalent capacity of exit. It is also possible to allow the gas that already has an "entry" right into the transport system to be marketed at a "virtual point" in the network and directed by the pipeline owner to the exit point contracted by the purchaser.

These characteristics favor the entry of new shippers and the liquidity of the system, with beneficial effects to the competition in the market, which seems to be well adapted to the current needs of the Brazilian natural gas market, in view of Petrobras' recent signaling that it will reduce coordinating role in the Brazilian gas industry.

Conclusions

The choice between different types of tariffs will depend on the characteristics of the system and the objectives of the regulatory body. Tariff regulation must be consistent with the structure of the industry and the stage of development in which it is located. There are tradeoffs that must be worked out before choosing the form of tariff to be used in the segment. It is from the understanding of the pipeline system and regulation that it becomes possible to determine the best type of tariff for the country.

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