Competitive Natural Gas Markets and Upstream Gas Pipeline Regulation: the case of Brazil

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Abstract— Access to upstream infrastructure is a key factor to enable the commercial production of natural gas. The control of such facilities by one player or by a small number of players can – and more likely will – mean the inability of other players to have access to the market. This case is verified in Brazil, where although there is a significant number of players enrolled in exploration and production, such diversity is not observed on the supply of natural gas to the end-consumers and most of production is disposed by the producers still at the production site. In this sense, this paper aims to address if and how current upstream infrastructure regulation in Brazil contributes to the persistence of such issues and how it could benefit from international experience to improve the incentives given by national regulation.

Keywords— Natural Gas. Upstream Infrastructure. Regulation. Competition.

I. OVERVIEW

The success of commercial natural gas exploration is extremely dependent on the infrastructure necessary to take the gas from the production site, process and deliver it for consumption. In this sense, access to infrastructure can be determinant to whether a gas exploration project will be economically viable or not.

In Brazil, almost 20 years past the end of Petrobras' *de jure* monopoly, the diversity of players observed in exploration and production is still not reflected in a competitive supply of natural gas to the end-consumers. One of the main reasons identified for that is that lack of access to upstream pipeline capacity and corresponding facilities creates a dysfunctional gearing of the market, in which the best option to monetize the gas ends up being to sell it to the producer that owns such infrastructure and benefits from economics of scale. Although there are 97 players involved in exploration and production, from the 41 existing processing facilities, 40 are fully owned by Petrobras and the remaining one, UEG Araucária, is 20% owned by Petrobras.