Latvian gas market in transition – challenges of Incukalns Underground Gas Storage

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Overview

On 3 April 2017 Latvia liberalized its natural gas market. All consumers can freely choose their suppliers and all suppliers can freely deliver gas to their customers. Household customers can still benefit from the regulated tariff. To solve the inherent conflict of interests and to ensure security of supply Latvia opted for full ownership unbundling. The first step was legal unbundling. By the end of 2016 the vertically integrated undertaking JSC "Latvijas Gaze" was divided in two legal units. The newly established enterprise JSC "Conexus Baltic Grid", responsible for transmission and storage, was separated from JSC "Latvijas Gaze" which kept their responsibility for trade and distribution. The second step was full ownership unbundling that is work in progress.

Baltic countries do not have their own natural gas resources except biogas of minor importance, which means that almost all gas consumed is imported. Latvia has the only gas storage facility in the Baltic region – the Incukalns underground gas storage facility (further IUGS). It is an aquifer reservoir with a working capacity of 2.3 billion m3. Storage capacity is at least 200% of average winter natural gas consumption. Historically IUGS played a significant regional role in gas supply, gas has been injected into IUGS seasonally, ensuring winter supplies for Latvia, Estonia, and the St. Petersburg region of Russia. IUGS costs were regulated and covered by all consumers proportionally to their consumption. In 2015 Lithuania built Klaipeda LNG, afterwards the role of IUGS in the regional gas supply system has diminished and its future importance is still uncertain. Under the national legislation IUGS has the regulated third-party access regime. This storage facility is also an integral part of the transmission system being responsible for the pressure in the system. National security of supply measures in the region concerning gas supplies are limited, namely minimum mandatory strategic storage reserves are defined for Latvia and Lithuania, but mandatory strategic storage reserves have not been introduced.

Currently IUGS must compete with pipeline gas deliveries in the face of steadily declining local and regional consumption. While the new storage tariff is in the approval phase, the storage operator applies the storage tariff approved in 2008 and reapproved on 13 April 2017. In order to adapt to the new market situation in the summer of 2017 JSC "Conexus Baltic Grid" as the transmission operator organized an auction to ensure that gas volumes injected into the storage will deliver withdrawal capacity sufficient to meet technical requirements or namely there will be sufficient pressure to ensure potential peak demand in winter. By the end of 2017 the system operator has submitted new storage tariff and transmission tariffs to the Regulator for approval. While discussions on products and pricing level is forthcoming between all stakeholders, there is an understanding that the storage services should become more flexible regarding products and prices.

IUGS has a challenging future as there is an intent to create a regional gas market including the Baltic region and Finland by the end of 2019 when the appropriate infrastructure will be in place. Commissioning of Finish – Estonian gas interconnector (Balticconnector) in 2019 could trigger a need for storing additional volumes as well as new type of products or services. At the same time the outlook for the long term perspective is more challenging considering potential competition with Polish storage facilities after Gas Interconnection Poland – Lithuania (GIPL) commissioning in 2021 and the development of existing and new LNG facilities in the Baltic region. Thus, the strategy of developing different products and pricing them is crucial for IUGS to succeed in the business.

The purpose of this paper is to examine the main drivers affecting competitiveness of IUGS considering emerging free market challenges.

Methods

For the purposes of this paper qualitative methods such as an analysis of different factors and interviews with gas market stakeholders, are applied depending on the focus area. Data on regional statistical data regarding gas and the electricity sector will be used, including consumption trends. Trading data from gas and electricity spot markets will be analysed, for example Gaspool, GetBaltic, NordPool to investigate the latest market developments. Secondary data from companies accounts will serve as supporting justification.

As storages have a potential to ensure multiple functions the research will cover the following underlying factors of the storage business:[1]

- seasonal flexibility needs: storage may be used by a gas supplier to balance its portfolio to fulfil its clients' consumption seasonal swings;
- short-term flexibility/balancing needs: need to have flexibility in order to respond to short term variations in demand; storage, being close to consumption areas, may be used by a gas supplier to adjust supply promptly to short term changes in its clients' consumed quantities (for example due to an extra-ordinary cold snap).
- willingness to exploit trading opportunities emerging from short term price volatility or seasonal price spreads (the "price gain" from storage);
- insurance against the risk of supply disruptions, with a view to ensure security of supply for end users even in emergency situations;
- insurance against the risk of market price spikes, with a view of containing total gas procurement costs;
- security of supply needs: a producer may use storage to ensure the transport of gas over long distances against the risk of en route disruptions;
- system "safety" needs: a TSO may use storage for some of its balancing needs;
- mandatory security of supply requirements.

The drivers will be analysed from different perspectives – the legal perspective attempting to analyse the effect of different legal acts and regulations on IUGS; security of supply perspective determining regional policies to ensure secure supplies; technical perspective discovering specifics of regional consumption, the role of IUGS in ensuring technical security of supply and delivering balancing functions, commercial perspective aiming to analyse historical development of demand for storage services under monopoly conditions and after market liberalization from one hand and to identify and evaluate business strategies of the largest stakeholders in relation to IUGS services under different IUGS service pricing from the other hand. The summary of factors affecting IUGS of possible IUGS strategies and outcomes will be presented.

Results

The findings of this paper will deal with the analysis of the current strategy of IUGS owners of passing all costs to end consumers via increasing tariffs and reallocating some of the costs to TSO tariffs, that might considerably reduce demand for IUGS services and further reduce attractiveness of gas as a commodity.

Conclusions

The main drivers affecting competitiveness of IUGS considering emerging free market challenges are (1) commercial interests of market stakeholders (e.g., gas injection during the cheaper summer period and gas off-take during expensive winter period), (2) short-term balancing purposes, (3) security of supply for the region especially during the winter period when peak demand occurs.

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