Towards single Natural Gas Market – Case of Latvia

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1. Description of Latvian gas market
2. Baltic regional gas market
3. Towards Single Baltic-Finnish gas market
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Natural Gas Consumption by Sector, 2012-2016

0% 20% 40% 60% 80% 100% 120%


Households Utilities & commercial sector Industry Energy
Structure of Primary Energy Supply, 2014

- Renewable energy sources; 36%
- Oil products; 32%
- Natural Gas; 24%
- Net electricity import; 5%
- Other; 2%
Natural Gas Supply System in Latvia

- 443 thousand consumers
- Transmission network – 1198 km, distribution network – 5055 km
- Two interconnections with Estonia and one with Lithuania
- No congestions (40% backup capacity)
- Inčukalns Underground Gas Storage
Gas Extraction from Incukalns
Underground Gas Storage

- Single storage site in the Baltics, aquifer type storage
- Capacity 4.47 billion m³, of which 2.32 billion m³ active (24219 GWh)
  - injection 190 GWh/d (max)
  - withdrawal 295 GWh/d (max)
- Extraction capacity is dependent on volume of working gas
- With possible cross border effects.
- Storage capacity can be increased
- Long term security
Latvian Gas Market Opening

- Two different derogations from Third Energy Package:
  - as emergent market until 2014
  - as isolated market until April 3, 2017
- April, 2014 - third party access to the Latvia’s natural gas transmission and distribution infrastructure
- April, 2017 - JSC «Latvijas Gaze» is split up into two independent «sister» companies with the same ownership structure (transmission & storage and trade & distribution).
- April, 2017 - all natural gas users have the right to freely choose a natural gas trader. Regulated prices for households.
- December, 2017 - 35 registered gas traders.
- December, 2017 - ownership unbundling of transmission system and storage system operator has to be completed.
- January, 2018 - unbundling of distribution system operator has to be completed.
Till the end of 2016 the market in Latvia was dominated by a single vertically integrated incumbent operator: JSC «Latvijas Gaze».

- PJSC "Gazprom"; 34,00%
- Marguerite Gas II S.à r.l.; 28,97%
- Uniper Ruhrgas International GmbH; 18,26%
- LLC "ITERA Latvija"; 16,00%
- Others; 2,77%
Spin-off of JSC «Latvijas Gaze»

1991-2016

01/2017

Trade, distribution

12/2017

Trade, distribution

Transmission, storage

Distribution
New Transmission System Tariff Methodology (adopted on November 28, 2016)

Main features:

- Based on TAR NC (Network Code on Harmonized Transmission Tariff Structures on Gas)
- Shift from m³ to kWh
- Postage stamp methodology
- Discounts for storage facility at entry/exit points - 50%
- Tariff review cycle – one year, first review cycle till April 1, 2019

Result – improved cross border trade between Baltic States
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Natural Gas Consumption in Latvia, Lithuania, Estonia (2008-2016)
Weak growth perspective for natural gas consumption
No domestic production (except biogas facilities)
Large interconnection capacities with Russia, but newly build LNG entry point in Klaipeda
Two new interconnections will be available in the system – Balticconnector (FI-EE) and GIPL (PL-LT).
Unused potential for IUGS and Klaipeda LNG
Specific Gas Facilities in the Region

- **Inčukalns Underground Gas Storage** - support to regional common gas market.
  - Gas storage auction was organized to secure gas winter needs for 2017/2018 period.

- **Klaipeda LNG** - has put an effective cap on Russian gas prices with effect.
  - Component of security of supply (SOS component) is added to the natural gas transmission tariff. From 1 July 2017 the SOS component is EUR 454.25 per MWh/day/year (excluding VAT).

- **Klaipeda LNG and IUGS should be seen as wider asset interplay as the markets matures.**
Gas Flows to/from Latvia, 2017

![Graph showing gas flows to/from Latvia in 2017](image)

- Injection to IUGS
- Entry from LT
- Entry from RU
- Extraction from IUGS
- Exit to EE
Objective – to increase market liquidity, competitiveness, and transparency of the wholesale market of the Baltic States

Conducting its operations since 2012, Regional trading platform – from 1 July 2017, the market areas established in Latvia and Estonia

Electronic trading system for short-term trading of natural gas products

70 exchange participants, 10 active participants
Implicit Capacity Allocation Method

- Available capacities at IPs between LT/LV and LV/EE are at a time allocated by GET Baltic to the natural gas volume (a day-ahead product).
- Every day 90% of day ahead capacity is reserved for Implicit Capacity Allocation. Capacity is reserved at 10:00 o'clock and after delivery of implicit capacity allocation results, unbooked capacity is released at 14:15.
- Approved by the NRAs of Baltic States on January 6, 2017.
GET Baltic Traded Volumes

Volume traded, MWh
Average price, EUR/MWh

0,0
0
20 000
40 000
60 000
80 000
100 000
120 000
140 000

0,0
5,0
10,0
15,0
20,0
25,0

EUR/MWh
MWh

jan'17
feb'17
mar'17
apr'17
may'17
june'17
july'17
aug'17
sept'17
okt'17
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Common Baltic-Finnish Gas Market Area

Strategic goals:

- Facilitation of energy independence
- Facilitation of diversity of supply sources
- Security of supply

Estonia, Latvia, Lithuania, Finland – North-Eastern gas supply risk group - shared responsibility for the security of gas supply

(REGULATION (EU) 2017/1938 of 25 October 2017 concerning measures to safeguard the security of gas supply)
Natural gas consumption in Latvia, Lithuania, Estonia, Finland

- Reduction rate:
  - Lithuania: -15% to 0%
  - Latvia: -10% to 0%
  - Estonia: -5% to 0%
  - Finland: 0% to 15%

Chart showing MWh from 2008 to 2016 for each country.
Infrastructure Development

Interconnection Estonia – Finland, Balticconnector, 2019

Enhancement of EE-LV interconnection, 2019

Enhancement of Inčukalns Underground storage, 2019

Enhancement of LV-LT interconnection, 2020

Poland – Lithuania interconnection GIPL, 2021

Baltic gas market – Interim Solution

The main tasks:

- Determination of annual total allowed revenue for each TSO,
  - Based on national methodologies, determined by 30 September of each following year

- Allocation of annual total allowed revenue to system users’ charges on fairs and non-discriminatory way
  - Capacity product tariffs on entry points must be based on 50% recovery of revenue related to primary (cross-border) network. The remaining part of revenue including applied discounts recovered from domestic exit tariffs;
  - Within the region entry - exit points with tariffs 0 EUR/MWh/day;
  - Exit tariffs for domestic points must be calculated by each NRA in accordance with national methodology

- Establishment of ITC mechanism will be designed by TSOs and agreed with relevant NRAs.
Baltic-Finnish market - Long-term solution

Study - Technical assistance to pricing model for the natural gas entry-exit system for the common Baltic-Finnish market

- **Objective** – to identify the best approach for reference price methodology - Postage Stamp, Capacity Weighted Distance and Matrix.

- **Desirable features of tariff methodology**
  - Economic efficiency
  - Competition, wholesale prices
  - Consumer welfare in short-run and long-run
  - Simplicity, avoidance of significant transfers between national TSOs
  - Impact on electricity sector
  - Security of Supply
Future challenges

- Agreement on particular methodology
- Usage of IUGS and Klaipeda LNG potential
- Subsequent treatment of Kaliningrad transit (LT) and Misso IP (EE)
- TSO compensation mechanism
- Congestion management on internal borders
Thank you!