Klaipeda LNG Terminal: Gateway for the Baltic Gas Market

Mantas Bartuška
General Manager
2015-10-01
All information contained in the presentation is intended to provide general information to the public. All reasonable measures have been taken to ensure that the information is true, complete and accurate to the best of AB Klaipėdos Nafta’s knowledge and efforts, however AB Klaipėdos Nafta does not undertake any liability for its accuracy or content. Likewise, opinions and views provided in the presentation are solely for the information of the public and do not constitute official and definitive view by AB Klaipėdos Nafta.
Klaipeda LNGT in the Regional Gas Market
Security of Gas Supply - Availability

Gas supply disruption 6 months, cold spell scenario

Before the completion of LNG terminal

- > 50%
- 25 – 50%
- 10 – 25%
- 5 – 10%
- < 5%
- Full supply

After the completion of LNG terminal and Klaipédą – Kuršėnai pipeline

Source: Energy Security Stress Test coordinated by the European Commission: Joint report by Estonia, Latvia, Lithuania and Finland (adjusted by Klaipédos Nafta to reflect post-Stress Test conditions)
Klaipeda LNGT in the Regional Gas Market
Security of Gas Supply - Price

Average annual natural gas import price

Sources: NCC, GetBaltic, Latvijas Gaze, Elering, Energiavirasto, The ICE, Indexmundi, ycharts, x-rates.com

Monthly prices are averaged to get the annual average price; Respective month exchange rates are used for currency conversions where needed; Reference for the last 3 months of 2015 H1 price in Lithuania is the GetBaltic fulfilled transaction weighted average price for transactions carried out within a month; 3.5 EUR/MWh are added to the NBP price to represent LNG shipping, supplier margin and any other additional costs; 10.4 MWh/1000 nm³ natural gas for conversions where needed.
Klaipeda LNGT in the Regional Gas Market
A potential Natural Gas Source to Ukraine

- Klaipeda LNGT, if needed, can cover:
  - 100% demand of vulnerable customers in all three Baltic states
  - 100% of demand in Lithuania
  - 90% of all demand in the Baltics

- Klaipeda LNGT may deliver significant volumes of natural gas to Ukraine already in 2015, if transit through Belarus is permitted

- Possible gas flows from Klaipeda LNG terminal

- Third Party Access infrastructure
- Limited or no TPA (TPA rules in Latvia approved, but not yet implemented)
- GIPL (Gas interconnection Poland Lithuania)
<table>
<thead>
<tr>
<th>Lithuania commits to covering costs of the Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Absorbs all investment and risks in building an LNG terminal in Klaipėda</td>
</tr>
<tr>
<td>• Covers all costs of the LNG terminal irrespective of the actual turnover through the terminal</td>
</tr>
<tr>
<td>• Covers all costs of maintaining the minimum flow through the terminal ensuring constant readiness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional importance of the Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enhanced security of gas supply for all Baltic States</td>
</tr>
<tr>
<td>• Only alternative source of gas supply</td>
</tr>
<tr>
<td>• Baltic State connection to the global gas markets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full Third Party Access to the Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All consumers and traders (Lithuanian, Latvian or Estonian) have equal access to terminal capacities on the same terms and conditions</td>
</tr>
<tr>
<td>• Current regulations envisage, that Latvian and Estonian users would receive services of the terminal on exactly the same terms and whenever needed,</td>
</tr>
<tr>
<td>• but are not required to cover any expenses of the terminal if they do not use the services</td>
</tr>
</tbody>
</table>

Klaipėda LNG terminal and associated small and mid-scale LNG infrastructure, as the regional LNG hub, **materially contributes to the availability of alternative natural gas supplies to Finland.**

**It is now for each country to capitalise on this opportunity**

Since January 2015 Estonia has been importing significant natural gas volumes from Lithuania.
The benefits of Klaipėda LNG terminal could be realized to greater extent if:

• The remaining legal and regulatory barriers for all natural gas consumers to participate in the free market are removed.

• Integration of the gas markets of the Baltic States, Finland and Poland are accelerated.

• The use of natural gas transmission and storage services, including tariff structures, are regulated from the broader regional perspective.

• Baltic States and Finland are included into wider European programs, such as Blue Corridors.

**Lower LNG infrastructure costs** for all consumers and **greater affordability** of LNG could be achieved by:

• Removing barriers for transit of natural gas to the third countries (such as a [virtual] transit to Ukraine)

• Accelerating small and mid-scale LNG applications both in marine and land-based areas
Future Plans

Broad field of application increases LNG potential in the region

Major drivers behind LNG demand growth are cost savings, environment, safe and easy transportation.

Local regasification
- Remote gas users
- Users seeking energy security
- L-CNG solutions for public transportation

LNG fuel
- Maritime
- Heavy trucks and buses

Planned LNG reloading station
Potential demand
Current demand
Liquefaction

Major drivers behind LNG demand growth are cost savings, environment, safe and easy transportation.

Planned LNG reloading station
Potential demand
Current demand
Liquefaction

500 km
Future Plans

Future LNG break-bulk hub for the Baltic sea

Gävle project
Expected start-up: 2018
Size: 20,000-30,000 m³

Nynäshamn project
Operational from: 2011
Size: 20,000 m³

Gothenburg project
Expected start-up: 2017
Size: 9,600 m³

Company project
Expected start-up: 2017
Size: 5,000-6,000 m³

Manga project
Expected start-up: 2017-2018
Size: 30,000 m³

Rauma project
Expected start-up: 2017-2018
Size: 20,000 m³

Pori project
Expected start-up: 2016
Size: 30,000 m³

Haminan project
Expected start-up: 2017-2018
Size: 20,000-30,000 m³

Talino-Muuga project
Expected start-up: 2017
Size: 2,000 m³

Talino-Muuga project
Expected start-up: 2017
Size: 5,000 m³
Thank you for your attention.