KN – an oil product and LNG terminal operator

**Traditional business**

- 50+ years of oil product terminal operations
- State fuel reserves terminal

**Focus for strategic expansion – development, construction and operations of LNG terminals**

- Klaipeda LNG terminal based on FSRU Independence
- LNG transport and bunkering vessel project for the Baltic Sea
- LNG reloading and bunkering station in Klaipeda
- LNG terminal development and Advisory services
Natural gas supply chain in Klaipeda

LNG TERMINAL INFRASTRUCTURE

FSRU "INDEPENDENCE"

LNG TERMINAL JETTY WITH EQUIPMENT

450 M

18 KM

PIPELINE CONNECTING WITH GAS GRID

Neringa

Klaipėda

Kiškenai

GAS METERING STATION

LNG TRANSPORTATION & DISTRIBUTION BY SEA

LNG RELOADING STATION
The small Scale LNG supply chain

- Deliver internationally traded LNG to FSRU Independence
- Break bulk conventional LNG cargoes to small scale LNG vessels
- Deliver to the LNG Reloading Station and regional small scale LNG terminals / bunkering stations
- Store LNG in pressurized tanks and
  - bunker LNG vessels
  - load to trucks
- Distribute to off-grid customers, supply as fuel
Klaipeda LNG terminal Infrastructure

Key facts

- Terminal commissioned by KN in Dec 2014
- 170,000 m³ of LNG storage
- 4 bcm/year regasification capacity
- Third party access

- So far
  - 40 large scale operations
  - 5 small scale operations

FSRU and jetty operation
Offshore connecting pipeline
Onshore pipeline Subterranean, 15 km
Gas metering station

Gas Metering Station
Services of Klaipeda LNG terminal

**Services**

Started from the 1st of January, 2015

**LNG regasification**

- LNG regasification tariff – 0.10 EUR/MWh (2017)

**LNG reloading**

- LNG reloading tariff – 1.14 EUR/MWh (until 2019)

**LNG regasification for Lithuanian consumers**


**Capacities allocated before and during the Gas Year (October – October)**

**Minimum send-out ensures constant operational availability**

**All services are on a transparent third party access basis**

A regulated LNG terminal activity

The price is set by NRA every year for the upcoming year
### Klaipeda LNG Terminal in its 3rd year of Operations

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<thead>
<tr>
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<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018 / 2021</th>
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<tbody>
<tr>
<td>Natural gas supplied, bcm</td>
<td>0.5</td>
<td>1.3</td>
<td>1.1</td>
<td>N/A</td>
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<td>Capacity utilization</td>
<td>10% - 15%</td>
<td>30%</td>
<td>&gt;25%</td>
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<td><strong>Terminal users</strong></td>
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<td>Commercial reloading</td>
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<td>Commercial truck loading</td>
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*Forecast*
LNG transportation and bunkering vessel

Joint venture by Nauticor (DE) and Klaipedos Nafta (LT) establishes a new LNG vessel by the end of 2018, which

– Secures a flexible LNG transport service to the LNG reloading station of Klaipedos Nafta

– Offers further services regarding LNG, e.g. transporting it to small-scale terminals at the Baltic and North Sea

* KN to have access to 10% of vessel capacity, Nauticor – 90%
LNG Reloading Station to be launched by January 2018

Some of the technical parameters of the LNG reloading station

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Volume of LNG storage tanks</td>
<td>5 x 1,000 m³</td>
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<tr>
<td>Station’s annual technological capacity</td>
<td>225,000 m³</td>
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<tr>
<td>Truck loading bays</td>
<td>2 bays</td>
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<tr>
<td>Maximal number of LNG loaded trucks per day</td>
<td>24 trucks</td>
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<td>Length of the jetty</td>
<td>250 m</td>
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<td>LNG bunkering rate</td>
<td>250-500 m³/hour</td>
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</tbody>
</table>
First ever truck loading at the LNG Reloading Station (17.10.2017)

8 truck loading operations so far
Benefits delivered by small scale LNG delivery

- LNG delivery by road to off grid customers
  - Supplying existing demand in northern Poland

- Enabling supply to new developments in Baltic states
  - Tallink LNG ferry and Druskininkai off-grid distribution network

- Bunkering from trucks in Baltic sea ports
  - All major ports in Baltic states within 600 km radius

- Cleaner burning fuel for commercial vehicles
  - Enabling LNG as fuel for road transport – delivering on national strategies and environmental targets

Usage possibilities for LNG

- Current LNG consumption
- Potential LNG consumption
Klaipeda LNG terminal – Small Scale LNG Enabler

- Klaipeda LNG terminal enables further small scale LNG developments in the Baltic Sea region
  - Small scale LNG reloading station completion in Klaipeda
    - 5,000 m³ LNG storage capacity
    - Truck loading and vessel bunkering
  - LNG bunkering transportation vessel to be launched in 2018
    - Ice-class multi purpose vessel
    - 7,500 m³ capacity