



# LNG IMPORT TERMINAL IN KLAIPEDA



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# KN – AN OIL PRODUCT AND LNG TERMINAL OPERATOR

## Traditional business



50+ years of oil product terminal operations



State fuel reserves terminal

## Focus on strategic expansion – development, construction and operation 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 under construction in Klaipeda

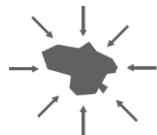


LNG terminal development and Advisory services

## THE RATIONALE LNG TERMINAL



Ensured **security** of energy supply



**Diversified** energy sources



**Third party access** to spur competition



Import prices reflect the **global** market price level



# KLAIPEDA LNG TERMINAL INFRASTRUCTURE

- Terminal commissioned by KN in Dec 2014
- 170.000 m3 of LNG storage
- 4 bcm/y regasification capacity
- Open third party access



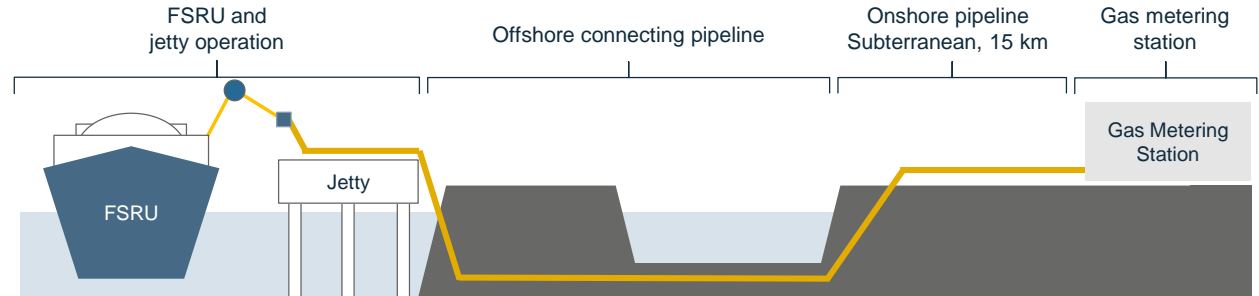
Terminal operator



FSRU operator

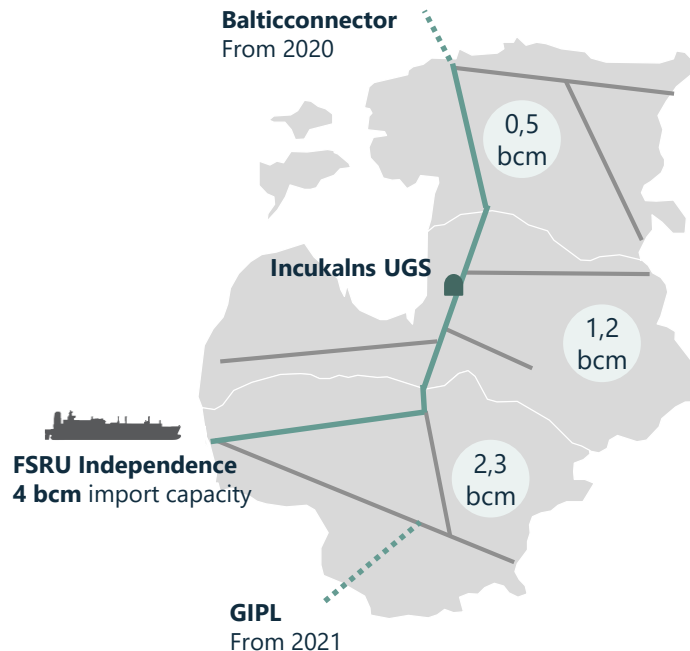


Transmission system operator



## MARKET BENEFITS BROUGHT BY THE TERMINAL

- Ended the 100% reliance on monopoly supplier
  - Transparent third party access mechanism
- Effective price cap
  - Access to international LNG markets
- Near-complete ability to supply the gas market need
  - Combined with Incukalns UGS for seasonality
- Access to clients with limited size portfolios
  - Joint use of LNG in the terminal
- Enabling the small scale LNG development
  - Break bulk of high quality LNG for further distribution

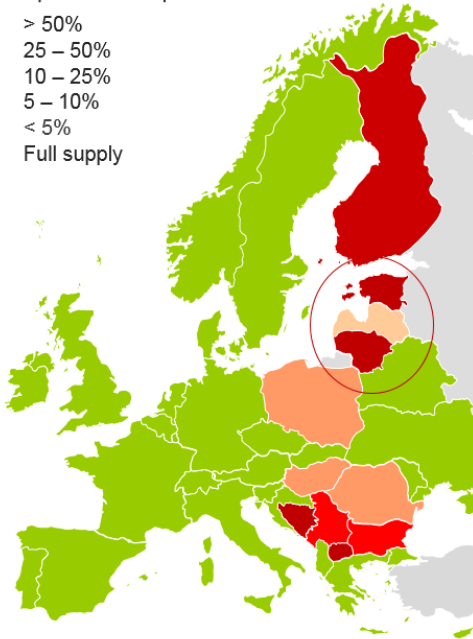
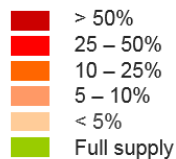


# SECURITY OF SUPPLY FOR THE BALTIC STATES

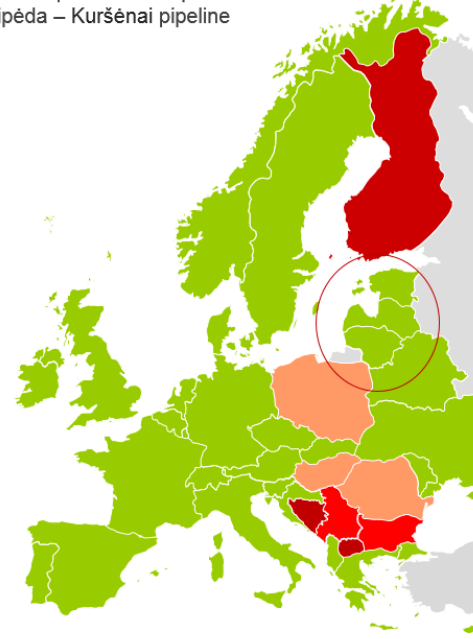
## Gas supply disruption 6 months, cold spell scenario

- Baltic states are now protected against a major gas supply disruption from the east
- Security provided by a combination of key infrastructure elements
  - Alternative gas import route via Klaipeda LNG terminal
  - Seasonal storage in Incukalna
  - Upgraded transmission pipeline network
- Full supply in cold winter
  - District heating operating as usual
  - No interruption to either residential or industrial customers

Before completion of Klaipeda LNG terminal



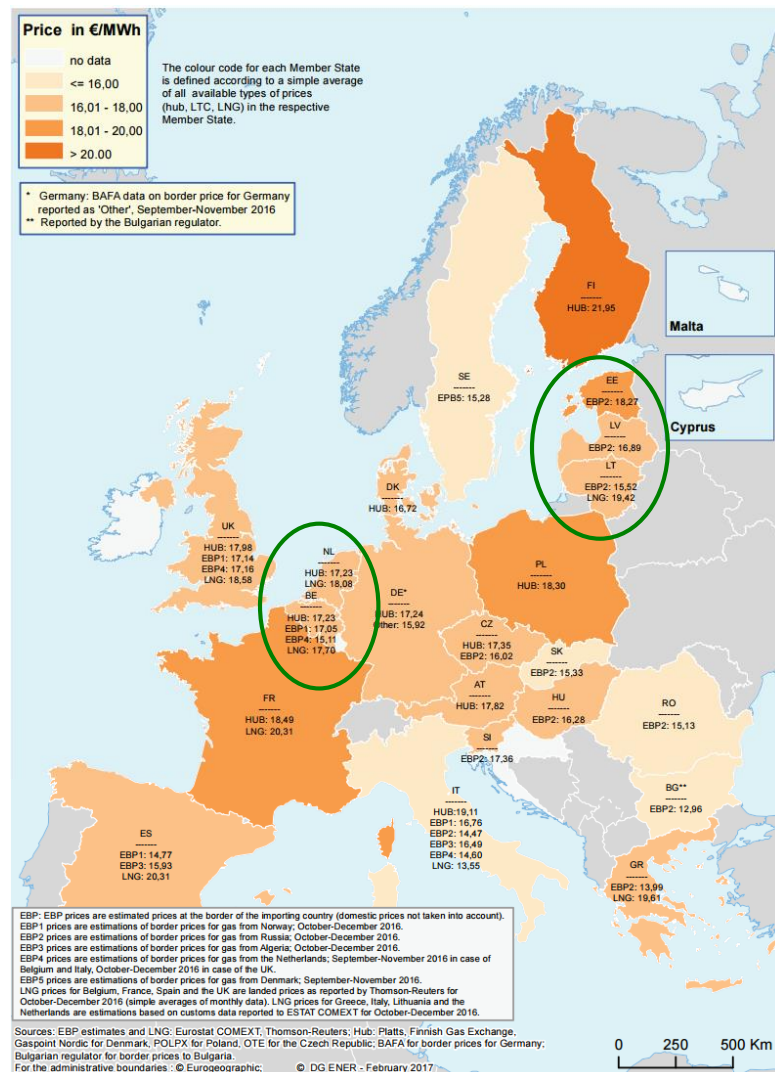
After completion of Klaipeda LNG terminal and Klaipeda – Kuršėnai pipeline



Source: Energy Security Stress Test 2014 coordinated by the European Commission: Joint report by Estonia, Latvia, Lithuania and Finland (adjusted by Klaipėdos Nafta to reflect post-Stress Test conditions)

# PRICE CONVERGENCE TO EUROPEAN HUBS DUE TO LNG TERMINAL IN KLAIPEDA

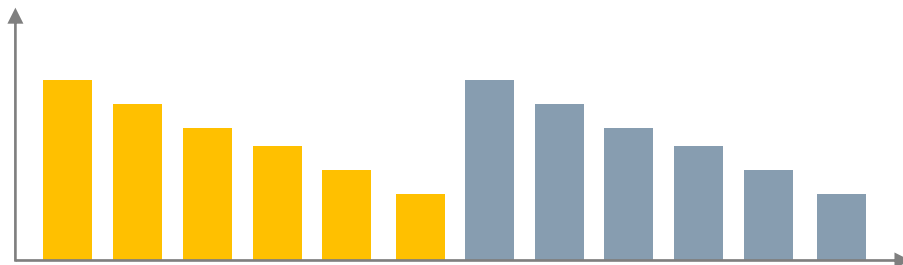
- Gas prices in the Baltic region have converged closer to the main European gas trading hubs
- Klaipeda LNG terminal allows regional gas consumers to source gas from global markets
- Former incumbent and monopoly gas supplier is unable to charge premium prices
- LNG terminal provides bargaining power, even if some physical volumes still come from the east



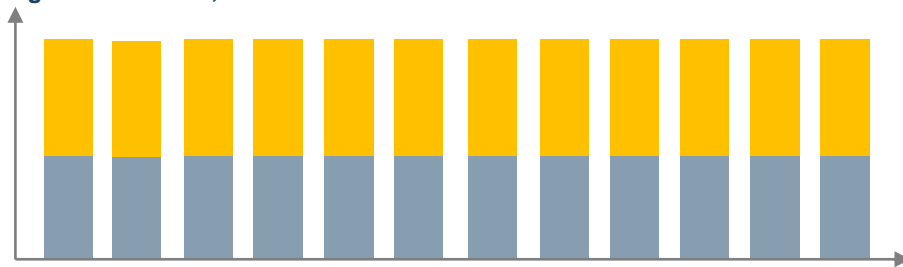
# COMMERCIAL INNOVATION - JOINT USE OF LNG

- Advantages of SWAP model
  - Terminal can be simultaneously used by several clients
  - Decouples client regasification profile from physical LNG delivery
  - Enables relatively small regional gas traders to access LNG markets
- Process
  - Borrowed / returned LNG quantities are indicated in approved schedules
  - Terminal users provide bank guarantees to each other to ensure LNG delivery

Inventory level in tanks, m<sup>3</sup>



Regasification rate, Nm<sup>3</sup>/h



Terminal user No.1  
delivers LNG and lends it



Terminal user No. 2 delivers  
LNG and returns it

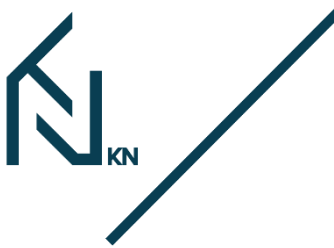
Time period



## KLAIPEDA LNG TERMINAL – SMALL SCALE LNG ENABLER

- Klaipeda LNG terminal enables further small scale LNG developments in the Baltic Sea region
  - Three reloading operations in 2017 so far
- Small scale LNG reloading station nearing completion in Klaipeda
  - 5.000 m<sup>3</sup> LNG storage capacity
  - Truck loading and vessel bunkering
- LNG bunkering transportation vessel to be launched in 2018
  - Ice-class multi purpose vessel
  - 7.500 m<sup>3</sup> capacity



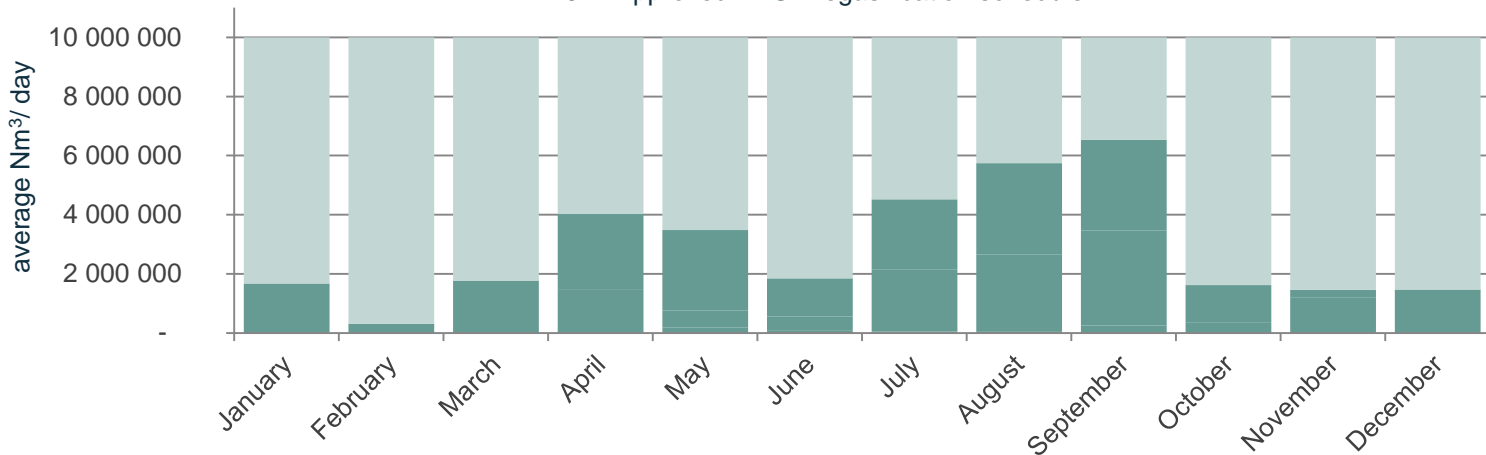


# KLAIPEDA LNG TERMINAL IN ITS 3RD YEAR OF OPERATIONS

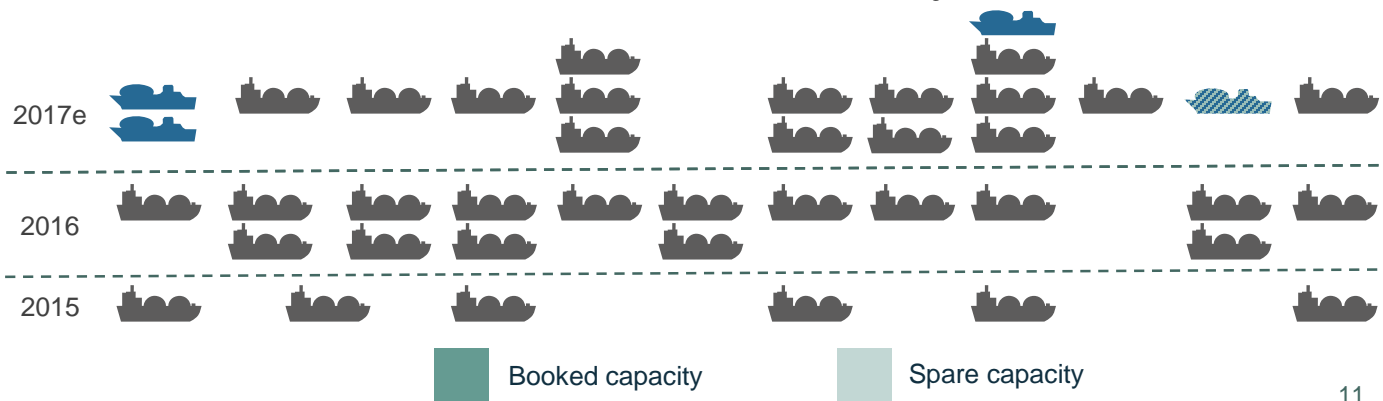
	2015	2016	Forecast	
	2015	2016	2017	2018 / 2021
Natural gas supplied, bcm	0.5	1.3	1.1	N/A
Capacity utilization	10% - 15%	30%	>25%	
Terminal users	LITGAS	LITGAS LIETUVOS DUJOS tiekimas ACHEMA <small>MEMBER OF THE CONEXPO-CON/AGG GROUP</small>	LITGAS LIETUVOS DUJOS tiekimas ACHEMA <small>MEMBER OF THE CONEXPO-CON/AGG GROUP</small> New users	Multiple users
Access to regas markets				
LNG suppliers	Statoil	Statoil	Statoil CHENIERE KOCH gasNatural fenosa	Multiple suppliers
Operational regime	Energy security	Energy security Commercial regas	Energy security Commercial regas Commercial reloading Commercial truck loading	Energy security Commercial regas Commercial reloading Commercial truck loading

# UTILIZATION OF KLAIPEDA LNG TERMINAL

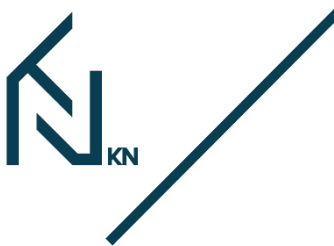
2017 Approved LNGT regasification schedule



- 320% YOY increase in regasified volume in 2016
- Reload operations started in 2017
- 4 global LNG traders supplying via the terminal



Booked capacity
  Spare capacity



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