LNG TERMINALS TRENDS AND DEVELOPMENTS

Vincent Demoury, General Delegate
Promoting cooperation between leading players in the LNG industry

GIIGNL

88 Members in 26 countries – LNG importers and LNG terminal owners and operators
LNG IMPORT GROWTH ACCELERATING

LNG trade has grown consistently and more LNG flows into the world

LNG imports 2010-2019 (MT)

Source: GIIGNL, Kpler
US AND YAMAL ADD LIQUIDITY

US exported 27 MT of LNG to 30 countries, Yamal did 15 MT to 19 countries (first 10 months)

US
- 10.3 MT (38%) to Asia
- 8.6 MT (32%) to Europe
- 1.4 MT (5%) to Middle East
- 6.8 MT (25%) to Americas

Yamal
- 12.3 MT (82%) to Europe
- 2.0 MT (13%) to Asia
- 0.6 MT (4%) to Middle East
REGASIFICATION TERMINALS IN 2019

7 new terminals were commissioned, adding a combined 13 MTPA of new regasification capacity

Regasification Capacity
881 MTPA
(vs. 868 MTPA in 2018)
Asian countries such as China, India, Taiwan and Pakistan need more capacity.

EUROPEAN TERMINALS ARE BUSIER IN 2019

Source: GIIGNL, Kpler
Diversifying Natural Gas Sources

But European dependence on Russian gas is remaining due to the increasing LNG imports from Yamal LNG.
LNG TO PLAY KEY ROLE IN POWER

Financing and infrastructure development challenges remain
Offshore facilities account for 46% of total send-out capacities newly added from 2015 to 2018
EXPANDING ACCESS TO LNG VIA TRUCKS

LNG terminals will be a regional focal point for the clean energy but volumes remain marginal.

Asia
(1,000 tonnes)

Europe
(1,000 tonnes)

Americas
(1,000 tonnes)

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NEW AREAS FOR LNG TERMINALS

Many terminals provide various LNG-related services and expanding their areas to new business

• In last 3 to 5 years, many European terminals have added various services such as LNG storage, Reloading, Transshipment, Truck loading, Cooling down in addition to their traditional services.

• Truck-to-Ship LNG bunkering operations take place in the ports of Belgium, France, Germany, Japan, Netherlands, South Korea, Spain, UK.

Truck-to-Ship LNG bunkering for ECONURI by KOGAS at Incheon port

Truck-to-Ship LNG bunkering for Sakigake by Tokyo Gas at Yokohama port

Source: KOGAS, Tokyo Gas
 Operators continue upgrading their terminal for services such as truck loading, bunkering and transshipment.

**Fluxys**
- Additional compressor and a 5\textsuperscript{th} storage tank for transhipment
- Two truck loading stations in parallel in Zeebrugge
- Constructing an LNG bunkering pontoon for the Antwerp port

**Dunkerque LNG**
- Truck loading bay completed (3,000 trucks per year)
- Works to adapt the jetty for small vessels from 5,000 m\textsuperscript{3}

**Polskie LNG**
- Expansion program inc. LNG-to-rail transhipment installation and additional jetty for SS-LNG

**Gate**
- Truck-loading facility incorporating 3 loading bays
  - Third Jetty for small vessels with a capacity from 1,000 m\textsuperscript{3}
  - Ship loading flow rate increased from 2300 m\textsuperscript{3}/hour to 4000 m\textsuperscript{3}/hour

**Elengy**
- 2\textsuperscript{nd} truck loading bay in Fos Tonkin & new station with 2 loading bays at Fos Cavaou
- Jetty for small vessels from 5,000 m\textsuperscript{3} at Fos Cavaou
CONCLUSIONS

• Additional LNG import infrastructure still needed in many parts of the world

• LNG terminals will be a focal point for future energy systems by re-distributing LNG via small-scale vessels or LNG tanker trucks

• Terminal operators are expanding their businesses beyond their traditional role to LNG related services

• Decarbonizing strategies will be key for the sustainability of operations
THANK YOU