USE OF LNG

Objectives of LNG fuel use in Port of Gdynia

- National policy framework for the development of alternative fuels
- Protecting the environment by limiting harmful emissions in the exhaust gases
- Improving the competitiveness in the Port of Gdynia for shipowners and operators
- The possibility of producing electricity on land or water
FEASIBILITY STUDY

„The use of fuel in the Port of Gdynia”
DEMAND FOR LNG

Estimated demand for LNG in the Port of Gdynia

Source: NEXUS Consultants.
LNG SHIPS IN THE PORT OF GDYNIA

Cement Carrier „Greenland” at the entrance in the Port of Gdynia
LNG Bunkering

Bunkering methods

- Bunkering from land
  Cryogenic Tank on truck
  (truck-to-ship, TTS)

- Bunkering from water
  specialized floating vessel
  (ship-to-ship, STS)
LNG BUNKERING (TRUCK-TO-SHIP)
BUNKERING FROM LAND (TTS)

- Transport
- Infrastructure
- Additional supply
- Small vessels

- Limited tank capacity
- Difficulties during loading
- Safety zone
- Risk related to traffic
LNG BUNKERING
**LNG BUNKERING (SHIP-TO-SHIP)**

- Efficiency of larger quantities of LNG
- Flexibility
- Operating from the water side
- Most types of ships
- High investment costs
- High operating costs
- Size of barge
- Safety
PRODUCTION OF ELECTRICITY WITH LNG

OBJECTIVE

Power supply to ships

IMPLEMENTATION

Floating power plant (LNG)
PRODUCTION OF ELECTRICITY

OLD SOLUTION

NEW SOLUTION
Forecast of potential demand for ships for electricity in Port of Gdynia 2016–2041 (MWh)

Source: NEXUS Consultants.
COOPERATION

Energy Network

Shipowners and terminal operators

LNG Suppliers
SMART PORT

- Ecology
- Low emission
- Modernity
- Innovations
Thank you for your attention

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