Small scale LNG in Polish off-grid areas
The **DUON Dystrybucja sp. z o.o.** activities in the infrastructure segment focus on the supply of natural network gas and LNG (Liquefied Natural Gas) through its own infrastructure, i.e. through distribution networks and LNG regasification stations. Natural gas is obtained both from domestic and foreign sources. DUON Dystrybucja sp. z o.o. also provides comprehensive energy solutions for businesses based on variety of clean fuels.

**BASE PRODUCT GROUPS**

- **NATURAL GAS SUPPLIES**
- **NATURAL GAS TO TRANSPORT**
- **ENERGY SOLUTIONS**
INFRASTRUCTURE LOCATIONS
STABLE BUSINESS MODEL

LNG sales [m³]

- 2013: 34 mln m³
- 2014: 39 mln m³
- 2015: 37 mln m³
- 2016: 40 mln m³
- 2017: 42 mln m³
- 2018: 36 mln m³
- 2019 F: 30 mln m³

Share in small scale LNG market in Poland

- DUON 48.35%
- Others 51.65%

Infrastructure segment

- LNG regasification stations: 20
- Cryogenic road tankers: 18
- KM of gas distribution network: 537
- Grid gas localities: 12
- Clients: 6121

STABLE BUSINESS MODEL

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STABLE BUSINESS MODEL
WHITE SPOTS ON THE GAS NETWORK MAP IN POLAND
OFF GRID REGASIFICATION UNITS IN POLAND

Source: Prof. dr hab. inż. Andrzej J. Osiadacz Politechnika Warszawska Zakład Systemów Ciepłowniczych i Gazowniczych Gazowa mapa Polski dla ciepła.
TYPICAL APPLICATIONS OF SMALL-SCALE LNG

- No access to grid gas
- Pre-gas grid development
- Temporary supplies
- Insuff. gas inf. capacity peak shaving
- Transportation fuel
- Burning in production processes

Heating

Burning in production processes

Transportation fuel
Storage capacity: 40 – 60 m$^3$
Regasification capacity: 400 – 4500 nm$^3$/h
User gas consumption: 500 000 – 8 000 000 nm$^3$/year
1. Lower LNG prices
2. Development of CHP market
3. Environmental regulations (MCP directive and others)
4. Heavy duty vehicles
5. New technologies
Different type of fuels used in industry [cost of 1 GJ]

The comparison of energy sources prices [PLN /GJ]

Non-price benefits of using LNG in industry:
- Stable high quality of fuel
- Environmentally friendly fuel
- Precise automatic metering
- Specific technological processes
- Ability to continue the production processes 24/7
POLISH LNG MARKET DEVELOPMENT FORECAST

LNG demand for households, SMEs and large accounts - development trend [millions m³]

Source: EY CVDD report
1. Current legal conditions
   • Building permit,
   • Environmental decision
   • Gas sources diversification

2. Dumping LNG prices given by the competitors

3. Competition to other Energy sources and customer education.
1. New clients
2. New philosophy
3. New products
Synergy of:

1. Biggest network of „classic” stations
2. Biggest transport capacity
3. Energy efficiency and heat production knowledge
Really small individual clients

Small industry, hotels, hospitals, aquaparks…

Starting from 45 000 nm³/year DUON has the individual solution for all.
Small regasification units line
smartGAZ philosophy

1. DUON takes care about everything.
2. Client feels like having grid gas.
3. No building, no checking, no orders, no problems.
4. DUON gives more – hints for optimizing energy usage in the client’s facility.
LNG fueling stations
DUON Dystrybucja sp. z o.o.

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