Workshop on Modernisation of Danube Vessel Fleets

L-CNG infrastructure in Slovakia

Place: Vienna
Date: 18.4.2018
Author: Peter Mozolák
e-mail: peter.mozolak@spp.sk
✓ Introducing natural gas as alternative fuel to various segments of transport

✓ Creation of new type of alternative fuel LNG in landlocked Slovakia

✓ Implementation of new innovative L-CNG infrastructure on the core TEN-T corridors in Slovakia

= Decrease emissions from transport
SPP = Slovenský plynárenský priemysel (Slovak Gas Industry)
- 160 years of gas industry tradition
- One of the biggest gas companies in CEE
- Shareholder - Ministry of Economy of the Slovak Republic (100%)

Natural Gas
- major supplier of natural gas for households and corporate customers with 57% market share
- 1.3 mil. customers in natural gas
- 30.26 TWh sold natural gas.

Electricity
- Fourth most important electricity supplier in Slovakia
- 170,000 delivery points.
- 829 GWh sold power.

Alternative fuels
- 9 CNG filling stations with sale of around 4 mil. kg of CNG.

Danube LNG, EEIG
Leading company in the field of LNG value chain research and development in the Slovak republic.

Other projects of Danube LNG, EEIG:
- Member of consortium of 33 companies from 12 member states

LNGAFT – Liquefied natural gas as alternative fuel for transport (CEF) – pilot deployment of 15 LNG bus fleet in Zvolen, Slovakia 2016-current
- Coordinator of the action, responsible for project management, feasibility study of LNG technology, comprehensive study on emission reduction during real-life-trial of LNG buses and LNG refuelling station.
Natural gas, liquefied at atmospheric conditions at the temperature of -162 °C. Compression 1:600 (liquid : gaseous) Volume - 2,4 l at 1kg of fuel

Natural gas compressed to 20 -22 MPa and in this form filled into the pressure vessel in the vehicle. Compression 1:200 (gaseous : gaseous) Volume 6,47 l at 1kg of fuel

L-CNG infrastructure in Slovakia
PROJECT

- 1 liquefaction plant - 24 ton/day
- 3 LNG stations / heavy duty
- 14 L2CNG stations at the highways
- 3 distribution semitrailers
- Truck-to-ship filling

LNG | CNG
---|---
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Total budget => 21 mil. €
CEF contribution => 15,7 mil. €
L-CNG infrastructure in Slovakia
Future L-CNG infrastructure in Slovakia

Rhine Danube corridor
Orient/East-med corridor
Baltic Adriatic corridor
L-CNG infrastructure in Slovakia

LNG in the Port of Bratislava
L-CNG infrastructure in Slovakia
Development in the Port of Bratislava

LNG Terminal Project

LNG Storage (HUB)
- Product storage
- Boil off gas treatment
- Product for sale

LNG bunkering station
- Export
- Import
- Ship filling

LNG Filling station
- Truck filling

fuELCNG

Liquefaction plant
- LNG offload
- Truck to ship
- Operation
- Product sale

Product storage

Ship filling
L-CNG infrastructure in Slovakia

**SCHEDULE**

- ✔ Signature of grant agreement: 26.10.2017
- ✔ Feasibility and location study: 31.3.2018
- → Tender preparation: 01/2018 - 04/2018
- ➤ Tender process (Public procurement procedure): 05/2018 - 10/2018
- ➤ Production, delivery and installation: 10/2018 - 12/2019
- ➤ Pilot operation launch: 01/2020
- ➤ Final study: 12/2020
Thank you for your attention!