



Case Study LNG #22

LNG/LCNG Compact Vehicle
Fueling Stations



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Highlights:

Location — Pan European

Includes stations in France & Scandinavia.
Stations are typically sited close to major transport hubs, such as ports and arterial traffic routes.

Scope of Project:

- Complete stations including build and install
- Comprehensive after-sales support options including training, servicing and on-line maintenance support
- Public access and provision to serve all NGVs – LNG, CNG and LBG
- Designed for 24/7 operation
- Zero emissions to atmosphere

Application:

Chart is typically working with national gas operators to expand the fueling infrastructure for natural gas vehicles in support of the host country's environmental objectives of reducing greenhouse gas emissions, together with those of NO_x, SO_x and particulates. The main targets are heavy goods vehicles fueled by LNG, and the stations are capable of seamlessly fueling those fitted with the most recently introduced Euro VI engines, as well as older fleets. Chart also works closely with vehicle OEMs and hence installed stations are already future proofed for the next generation of engines. Natural gas from composted organic waste is increasingly used in its liquefied state (LBG) for vehicle fueling and Chart stations are fully compatible with both LNG and LBG. They are also typically equipped with CNG modules and available to fuel all NGVs.

System Configuration:

- Compact assembly comprising 3-in-1 vertical LNG storage tank, pump skid and Saturation on the Fly (SoF) system
- The compact design reduces overall footprint by 2/3 versus conventional NGV fueling stations
- Range of LNG storage capacities from 50 to 108 m³
- Full factory assembly and modularization minimizes CAPEX, civil work activities, transportation cost and on-site installation time
- Fully CE marked (European compliance standard)
- Proprietary SoF technology eliminates the cool down process to deliver an immediate fueling response, which means reduced filling time for drivers
- Equipped to serve all types of vehicles with saturated or cold liquid
- MID certified Dynaflo 3000 LNG dispenser facilitates venting and fueling through one liquid line
- Fully automated driver operated fueling process
- Cellular remote monitoring with control and diagnostics via smart devices
- Payment terminal incorporated into station design – Fill & Pay
- 24/7 operator support help desk and troubleshooting service
- Relevant for all NGV fleet sizes

Significant Accomplishments:

- Minimum overall station footprint of just 3.8 x 3.8 m
- Stations installed, commissioned and fully operational within days of arriving at site
- Very positive operator feedback regarding fast access and ease of use
- Fueling times consistent with those for diesel fueled vehicles

