



Case Study

LNG #31

LNG Import Terminal for
Power Generation

Switchover from Diesel to LNG



www.ChartLNG.com

©2020 Chart Inc.

LNG@chartindustries.com

Doc#21688559

Highlights:

- Using clean burning LNG to provide a secure energy source to the island via an 80MW gas fired power plant
- The natural gas-fired electricity generation provides transition to a lower-carbon energy system, reducing SO_x and NO_x emissions by approx. 90% each and CO₂ reductions by approx. 40%

Location—Gibraltar

Scope of Project:

- Chart as EPC, excluding civil works
- LNG Import Terminal with 5000m³ onsite storage

Application:

Dedicated LNG import terminal to enable the British Overseas Territory of Gibraltar to generate its power from clean burning natural gas.

Project Background:

Until recently, the island's energy needs were powered 100% by marine diesel. With the increasing global availability of natural gas, LNG was selected to supply the new gas-fired power station. The twice monthly delivery of LNG via ocean-going tankers required 5000m³ of onsite storage. Chart was approached to provide the turnkey project for the site's import terminal, consisting of shop-built storage vessels, interconnecting piping and the regasification system.

System Configuration:

Chart Ferox in Decin, Czech Republic provided the marine delivery interface consisting of a marine loading arm equipped with quick connect devices. The storage system consists of 5 x 1000m³ vacuum insulated, double wall, stainless steel outer jacket tanks, fully fire-proof protected. The cryogenic withdrawal and vaporization system consists of LNG submerged pumps, vaporizer skids and heat delivery system, liquid nitrogen system, gas regulating station and controls. Regasification uses water/glycol equipment, using heat from the power plant with Shell and Tube units for redundancy.

Significant Accomplishments:

- Terminal is built on reclaimed land and complies with zero emission policy
- Design and approvals integrated within the close vicinity to the airport and cruise vessel terminal
- Eliminated the need for multiple sets of small diesel generators located across the island.

