Mobile LNG Units

What is Liquefied Natural Gas?

LNG is simply natural gas in liquid form. It is an odorless, non-toxic and non-corrosive liquid produced by cooling natural gas to approximately -260°F at atmospheric pressure. At this temperature the gas condenses into a liquid, increasing the energy density of the fuel by a factor of 600.

The increased energy density, in turn, allows LNG to be stored and transported at much lower cost than the gaseous form. LNG provides a safe, efficient and cost-effective means for fuel users without access to pipelines to enjoy the benefits of clean, low-cost natural gas.

Storage Tanks - Prometheus Energy’s specialized cryogenic insulated tanks are used to transfer the ultra-cold liquefied natural gas. The LNG tanks are double-wall constructed with extremely efficient insulation between the walls. The advantages of mobile units is that all the mobile equipment can be moved multiple times to different locations as often as needed. The largest single mobile tank Prometheus has installed is 15,000 gallons.

Vaporizers - Before liquefied natural gas can be consumed by an end user, it must be returned to its gaseous state. Vaporizers utilize ambient air to boil the LNG, therefore heating the resulting gas. The atmosphere surrounding these vaporizers serves as the free energy source. Alternating operation is sometimes employed providing a system of 100% redundancy.

Trim Heaters - In cold weather, ambient air vaporizers discharge gas at low temperature. As the efficiency and integrity of fuel-consuming equipment is enhanced by gas of consistent quality, trim heaters are used to ensure the desired temperature of the vaporized gas. Trim heaters represent the final operation involved in producing gas that exceeds pipeline specifications.

LNG Is Odorless - Certain applications mandate that natural gas be odorized to allow its easy detection. If these applications employ an LNG vaporization system, an odorizer must be installed on site. These odorizers include a mercaptan liquid that they introduce to the natural gas in very small quantities.

Mobile Units - Once a company confirms shipment of LNG, Prometheus will carefully inspect the LNG storage and regasification equipment. Our professional LNG transport and logistics personnel will visit the intended location and confirm specific road restrictions and permits. Transportation carriers are then arranged and LNG equipment and fuel is transported to the site.

Prometheus field technicians are dispatched with the equipment and installation is coordinated with the Field Operator. Along with the installation of the LNG equipment, a portable concrete boarder is installed that encompasses the entire designated area.

Once equipment and gas lines are installed, a pre-startup safety review is performed by a qualified Prometheus Energy representative. Prometheus Energy employs field technicians that are on call 24 hours per day to resolve any issues that may occur. Given the reliability of these installations, the most typical function of a technician is preventive maintenance.