

WHAT IS LNG



- **Liquefied natural gas** or **LNG** is natural gas that has been converted to liquid form. It is odorless, colorless, non-toxic and non-corrosive.
- The liquefaction process involves removal of certain components, such as dust, acid gases, helium, oxygen, carbon dioxide, sulfur, water and heavy hydrocarbons. and water from the natural gas, resulting in LNG that is almost pure methane.
- The natural gas is then condensed and cooled to -260° F, at which point it becomes a liquid.
- Liquefied natural gas takes up about 1/600th the volume of natural gas in the gaseous state which makes it easier to transport and store.
- The energy density of LNG is 60% of that of diesel fuel.

Environmental Issues

Natural gas could be considered the most environmentally friendly fossil fuel, because it has the lowest CO₂ emissions per unit of energy. Because of the energy required to liquefy and to transport it, the environmental performance of LNG is inferior to that of natural gas, although in most cases LNG is still superior to alternatives such as fuel oil or coal.

Safety and accidents

LNG, or any vapor associated with LNG, will not explode in an unconfined environment. For LNG to burn, it must first vaporize to gaseous form and mix with air at a concentration between 5 to 15%.

Thus, in the unlikely event of an LNG spill, the natural gas has little chance of igniting an explosion.

LNG is typically transported by specialized tanker with insulated walls, and is kept in liquid form by autorefrigeration, a process in which the LNG is kept at its boiling point, so that any heat additions are countered by the energy lost from LNG vapor that is vented out of storage and used to power the vessel.

There is no environmental cleanup needed for LNG spills on water or land.