

OPTION AGREEMENT APPROVED WITH BP ENERGY

The Port of Galveston approved an option agreement with BP Energy Company in September for the development of a Liquid Natural Gas (LNG) facility on the north side of Pelican Island. The Port understands that questions remain in the community about LNG. Over the next few months the Port of Galveston will run a series of informative questions and answers on our website, www.portofgalveston.com, and in the local newspaper to help the community to better understand both the commodity and the project. Below is our first installment of the series on liquid natural gas.

What is LNG?

LNG is Liquefied Natural Gas. Natural gas in its gaseous form comes from many production wells around the world. Some of it goes to liquefaction terminals near the production source, where it has all the contaminants removed and is cooled to temperatures low enough to turn it into liquid (minus 256°F) and maintain it at atmospheric pressure. The volume is 1/600th of that of a gas. Consequently, it is cost effective and safe to ship large volumes via LNG ships from where it is produced to where it is needed. LNG vessels are sophisticated, purpose-built double-hulled ships that have cargo containment systems able to maintain the low temperatures at atmospheric pressure. Together the hulls, ballast, insulation and containment barriers are more than six feet wide. Once it is delivered to the LNG terminal at its destination, it is regasified back to natural gas and sent through existing pipelines to homes, businesses and electric utilities.

Why do we need LNG in the U.S.?

Natural gas provides the cleanest source of affordable energy available to us today. As such, natural gas demand is growing faster than other fuels in the U.S., as domestic production declines. To address this gap, gas supplies need to be brought from further away. Liquefying the gas near the production source and transporting it by ship over long distances creates an economic and safe way to get it to where it is needed, like Texas.

What is the level of demand in Texas?

Texas ranks first among U.S. states in terms of natural gas consumption, consuming about 10 percent of total U.S. demand. Gas demand in Texas is dominated by the industrial and power generation sectors. It is believed that gas demand in the Gulf Coast region (Texas, Arkansas, Louisiana, Oklahoma) will grow about 13% during the 2004-2010 timeframe, taking it from 14.1 Bcfd (billion cubic feet per day) to 15.9 Bcfd. Texas demand will probably grow faster than the regional average mainly as a result of higher economic activity. During the same timeframe, the EIA (Energy Information Administration) is forecasting a 4 percent decline in Gulf Coast gas supply that will probably tighten the Texas supply/demand balance.

Is LNG safe?

By its very nature LNG cannot explode or even burn. It can only burn when it is converted back into natural gas – the same natural gas used in our home furnaces or cooking stoves – and mixed with air in the right ratio of oxygen-methane (5-15% range).

In addition, it is transported and stored at atmospheric pressure the same way water is stored. There is no pressure in an LNG tank. As a liquid in transport and storage, it won't even burn. The safety record for LNG transport and handling is exemplary. There have been more than 35,000 shipments over the past 40 years without a single loss of containment.

Isn't there some danger of fire with LNG?

The chances of an LNG fire are extremely remote. As a liquid, LNG will not burn. As a gas, in order to burn, it requires an ignition source and the proper ratio of air-natural gas in order to burn (5-15% range). LNG ships and facilities are designed with numerous redundant safety features and detection devices to keep transport, storage and processing of the product extremely safe.