

## Frequently Asked Questions about LNGs

### **Q: WHAT IS LNG?**

**A:** LNG is natural gas that has been liquefied by super cooling to -260°F (-162.2°C). This reduces the volume that the gas occupies more than 600 times making it easier to transport. Currently, imported LNG is 95% – 97% methane, with the remainder a combination of ethane, propane, and heavier hydrocarbons. LNG is considered a flammable liquid. It is odorless and colorless. In its gaseous state it is used for heating and cooking.

### **Q: WHERE WILL THE PROPOSED LNG SITES BE?**

**A:** Excelerate Energy and Tractabel North America both propose building LNG terminals 10-miles off Gloucester to go online in 2007 to 2009 and supply the Northeast with roughly 400 million cubic feet of natural gas per day (GDT, 2/17/05). Specifically, these terminals will be located in inshore fishing grounds where fishermen have been making their living for the last 400 years and just outside the boundary lines of Stellwagen Bank National Marine Sanctuary.

### **Q: HOW WOULD AN LNG TERMINAL WORK?**

**A:** When in operation, two tankers, each the size of three football fields, would anchor at large buoys off the coast of Gloucester. The liquefied natural gas on the ships would be vaporized aboard the vessels. The gas would then be pumped into underground pipes and carried 14-16 miles, connecting with the Algonquin natural gas pipeline off the coast of Marblehead (GDT, 2/2/05).

### **Q: DO WE NEED AN LNG FACILITY OFFSHORE?**

**A:** No! The 850-mile pipeline system that starts in Nova Scotia, runs through Maine, and into Dracut, MA is underutilized carrying only about one-third of its capacity. This pipeline cuts through hundreds of residential areas to bring natural gas to the Boston area and the company's goal is to use the pipeline to bring 500 million to 1 billion more cubic feet per day into MA by 2007 or 2008 (GDT, 3/11/05).

### **Q: WHAT ARE SOME CONCERNS ABOUT LNG?**

**A:** There are three primary concerns:

1. Human safety
2. Environmental safety
3. Disruption of fishing and other marine and recreational activities

#### **Human Safety:**

- Too close to population centers (the other US offshore facility is 116 miles off the coast of Louisiana)

- Technology is untested
- Released LNG can create a flammable vapor that could travel 2.5 to 7 miles before dispersing. It could be ignited at any point engulfing population centers, boats, or another tanker. Gloucester is ten miles from the proposed site. The proposed site is also less than one mile from the major channel used for shipping off the North Shore
- Accidents: while tanker hulls are constructed for maximum safety, accidents or attacks are possible at many potential points: rupture to line, misfit of connection, collision of boats, buoy opening to pipeline, terrorist attack

#### **Environmental Safety:**

- Huge amounts of air pollution from tankers (over 100 tons per year per vessel)
- Intake of more than 100 million gallons of sea water each day sucking in hundreds of millions of fish eggs and marine life
- Disruption of vital and fertile fishing grounds, such as Stellwagen Bank
- Leaks from storage compartment while open to facilitate transfer
- Increase in water temperature.

#### **Disruption of Fishing and Other Marine and Recreational Activities:**

- More fishing ground closures within the "safety" zone (one-fourth of a mile)
- No vessels with underwater gear can operate within two-thirds of a mile
- No traffic out to nearly one and one-half miles when the tanker is approaching
- Security zone of six miles for all commercial and recreational vessels when a tanker is present
- Represents important feeding grounds for endangered Northern Right, Humpback, and Fin whales.

<b>PRECAUTIONARY PRINCIPLE</b>
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When an activity raises the threat of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

The principle applies to human health and the environment. The ethical principle behind the precautionary principle is that humans are responsible to protect, preserve, and restore the global ecosystems on which all life, including our own, depends.

It's the common sense idea behind many sayings: "Be careful." "Better safe than sorry." "Look before you leap." "First do no harm."