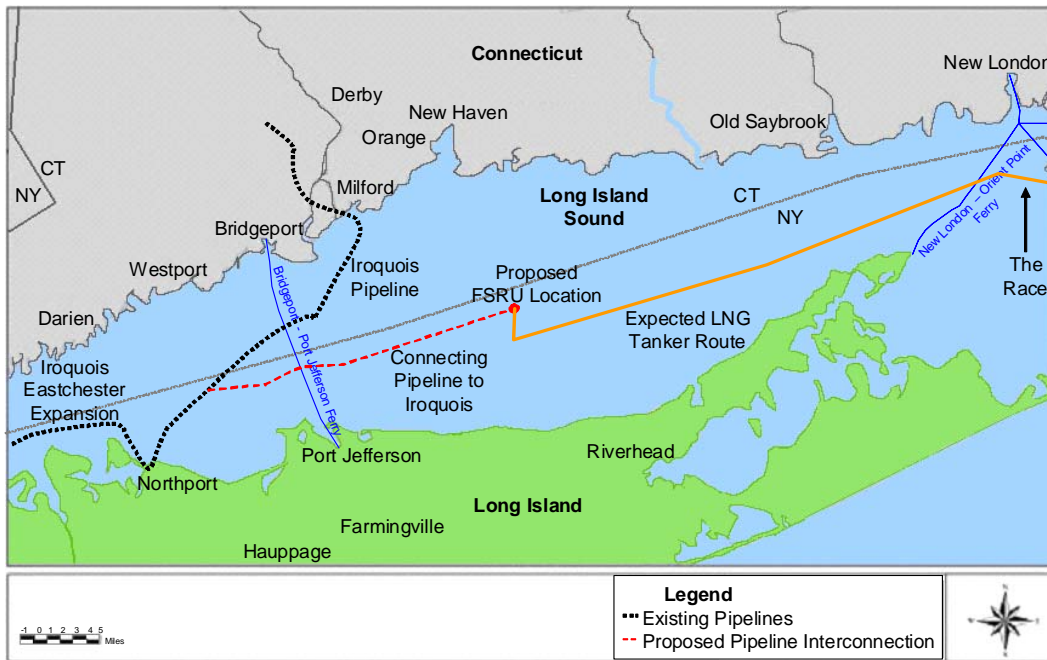


1. PROJECT DESCRIPTION

The proposed Broadwater LNG terminal would be located in Long Island Sound approximately 9 miles (14.5 km) from Long Island and 10 miles (16 km) from Connecticut (Figure 1). The FSRU is designed as a modified LNG carrier to receive, store and regasify LNG. It will be moored in 90 feet (27 m) of water to a tower via a yoke mooring system (YMS). The FSRU will be free to weathervane around the tower in response to winds and currents. The mooring tower will be secured to the seabed by four legs with the structure covering a total area of 13,180 square feet.

The FSRU is designed to have a double hull similar to a membrane tank LNG carrier. It will be 1,215 feet (370 m) long, 200 feet (61 m) wide and 80 feet (24 m) above the waterline, with 40 feet (12 m) of draft (Figure 2). Broadwater plans for LNG carriers with cargo capacities ranging from 125,000 m³ to 250,000 m³ to deliver LNG to the FSRU two to three times per week.¹ Regasification capacity will allow for an average send-out of 1 Bcf/d and a peak sendout of 1.25 Bcf/d. Net storage capacity is 350,000 m³, equivalent to 8 Bcf. After revaporization, the gas will be transported via a 22-mile (35 km), 30-inch subsea lateral to the Iroquois mainline for delivery to Long Island, New York City and Connecticut.

Figure 1 – FSRU Location and Area Infrastructure



¹ Equates to approximately 2.9 Bcf to 5.7 Bcf.

Figure 2 – Broadwater FSRU Offshore Terminal



Broadwater’s proposed location, away from the sensitive shoreline and nearshore ecosystems that serve as important nesting, feeding, resting, spawning and nursery areas for many species, is designed to minimize environmental impacts.

The shipyard where the FSRU will be constructed has not yet been chosen, but it will most likely be in the Pacific Rim. Once completed, the FSRU will be towed to Long Island Sound and moored at its permanent location utilizing a YMS. The YMS also serves as the connection from the FSRU to Iroquois.

A detailed review of the proposed project technology can be found in Section 3. The main components of the Broadwater FSRU include the LNG loading arms, the LNG storage tanks, power generation, the regasification plant, the nitrogen plant, an accommodation area and the YMS.

The LNG cargo transfer system consists of four loading arms mounted on the starboard side of the FSRU. The LNG storage tanks are below deck. Each of the eight membrane storage tanks has a storage capacity of 45,000 m³, about 1 Bcf. The LNG is stored at -260°F and a normal operating pressure of 1 to 3 pounds per square inch (psi). Power generation for the FSRU includes three 22-MW gas turbines which would use vaporized LNG for fuel. The regasification plant includes a recondenser for boil-off gas, shell and tube vaporizers (STVs), superheaters and metering and odorization equipment, and is designed to vaporize LNG at a peak capacity of 2,500 m³/hr. The nitrogen plant uses air compressors and membrane nitrogen generating units to generate nitrogen gas which is injected into the regasified LNG to adjust its composition and heating value so that it meets the gas quality standards of the receiving pipeline. The accommodation area will serve as the living, dining, recreational and working areas for up to 30

crew members. The YMS is attached to the stationary mooring tower and consists of the jacket, the mooring head and the yoke. The YMS also provides the connection from the outlet of the regasification unit to the pipeline lateral that runs undersea to the Iroquois mainline. In addition, the FSRU will have a water ballast system in order to maintain its draft, trim and stability during loading and regasification. The FSRU's flare will be used for emergency burning of excess LNG vapors when there is overpressure in the storage tanks or excessive boil-off volumes that cannot be handled by the recondensers.