

Broadwater: Just the Facts

Broadwater Energy welcomes a thorough and constructive review of its proposal, including opposing viewpoints based on scientific evidence. But upon review of many of the statements made by opponents of the project, it is abundantly clear that Broadwater Energy must make an effort to separate fact from fiction.

What We've Heard: *“Broadwater will industrialize Long Island Sound.”*

The Facts

For centuries, a tremendous amount of goods have moved into, out of, and through Long Island Sound. In 2000, 311.5 million tons of freight moved through the region in some form. This represented \$797.6 billion worth of goods. Bridgeport is the most active commercial port in the Sound, with more than 10,000 vessels per year. New London registers more than 5,000 vessels per year, and New Haven approaches 2,000 vessels per year.

Petroleum and coal products make up the bulk of marine movements with 47 million tons transported through Long Island Sound annually. Much of this cargo makes its way to the Northville oil terminal situated one mile off the coast of Riverhead, N.Y., or to a coal-lightering area three miles from the Bridgeport shoreline, where coal is off-loaded from the ships onto barges for use in the Bridgeport power plant. Other cargos such as lumber, steel, copper and fruit are offloaded at Bridgeport, New Haven and New London many times each month. These activities are vital to maintain the local and regional economy and provide hundreds, perhaps thousands of jobs for marine pilots, dock workers, freight forwarders and the myriad of people who handle those goods as they move through the supply chain to you, the consumer.

So, the Sound has been “industrialized” for quite some time. Our challenge now is to develop new, cleaner, more efficient energy facilities that will reduce pollution that goes into the air and water. One way to do that is by replacing oil and coal with cleaner burning natural gas from Broadwater.

What We've Heard: *“Broadwater will devastate the region's local tourist industry.”*

The Facts

There has been no substantiation as to how or why Broadwater could affect local tourism. LNG carriers supplying the Broadwater facility would be of a similar size and nature to many commercial vessels that routinely transit the Sound delivering the \$800 billion worth of goods. The wide expanse of the Sound will allow shared transit for both commercial and tourist traffic, as has been the case for many years.



What We've Heard: *"Broadwater LNG carrier transits will close the Race and stop all boat traffic."*

The Facts

Both statements are untrue. Page 129 of the Coast Guard's Waterways Suitability Report on Broadwater (available at:

<http://www.uscg.mil/d1/units/seclis/broadwater/broadwater.html#>) states that "there would be approximately 425 yards on each side of the safety zone where small craft could operate while LNG carriers were transiting through The Race." Further, pages 78 and 79 describe two additional passageways on either side of the Race that boat traffic uses. These two passageways cannot be used by commercial ship traffic (such as Broadwater and cargo ships) because the depths are too shallow.

What We've Heard: *"For the first time in the Sound's history, a section of the open water body will be given over to a private corporation."*

The Facts

This statement also is untrue. Page 41 of the Coast Guard's Waterways Suitability Report states, "Several safety and security zones exist within the [Long Island Sound]. These include zones surrounding the Groton, Connecticut Naval Submarine Base, General Dynamics Electric Boat Shipyard, Dominion Millstone Nuclear Power Plant, and surrounding all anchored Coast Guard vessels. In addition, safety and security zones have been proposed surrounding the Northport and Riverhead Offshore Platforms. Safety zones are also imposed for several fireworks events in the [Long Island Sound]."

Page 141 of the report provides some perspective of the size of the safety and security zone. "The Long Island Sound is approximately 1320 square miles (an area that is approximately 4 percent smaller than Long Island, which is 1379 square miles). The area covered by the proposed safety security zone for the FSRU is approximately 0.12% of the total area of Long Island Sound."

What We've Heard: *"There is a ban on LNG facilities in New York City and the ban should be extended to Long Island."*

The Facts

The moratorium on construction of new LNG facilities in New York City requires that any new LNG facilities be sited at least one mile from populations of 1 million or more. Broadwater would be in the middle of Long Island Sound – nine miles from the nearest shoreline. The moratorium on LNG construction resulted from a February 1973 incident on Staten Island during repair of an empty LNG storage tank. The tank's concrete dome collapsed down inside the tank and killed the 37 construction workers inside. No LNG contributed to the incident. It was an unfortunate construction accident. Meanwhile, LNG storage tanks have operated safely on Long Island, Queens, and Brooklyn for decades and provide much-needed energy during periods of peak energy demand.



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What We've Heard: *“Discharges from the Broadwater facility would raise the water temperature in Long Island Sound by 3 degrees and have a devastating impact on marine life.”*

The Facts

The Broadwater terminal itself will not have any thermal discharges into the Long Island Sound. The facility will use seawater for ballast purposes and it will be discharged at ambient temperatures because heating and cooling does not occur at any point while it is in the FSRU. Any discharges by LNG carriers must meet existing New York State Department of Environmental Quality estuary regulations that govern ambient temperatures of any discharges.

The only thermal discharge associated with the Broadwater facility is from the LNG carriers while they are moored at the facility. The thermal impact is small and insignificant when compared to shore-based power plants that discharge to Long Island Sound. Their permitted thermal discharge zones are several hundred acres (Northport = 2,066 acres and Port Jefferson = 611 acres). The LNG carrier thermal discharge zone associated with Broadwater is only 0.022 acres. This discharge would have no significant long-term impact on water quality or marine life.

What We've Heard: *“Broadwater will devastate Long Island's commercial fishing industry.”*

The Facts

Since the announcement of the project, Broadwater has worked closely with the local commercial fishing industry, especially the lobstermen in New York and Connecticut. Broadwater has set up a Fisheries Advisory Committee to discuss how the project can minimize or mitigate impacts. If this is not possible, Broadwater has committed to compensate the group for any demonstrated loss of fishing, as well as any gear damage.

Based on our conversations with the fishermen, between six and eight fishermen would have a portion of their catch within the Broadwater safety and security zone. In each case, the portion represents a small percentage of their total catch. Broadwater continues to work closely with these fishermen to determine the best ways to minimize impacts.

As the Race will not be closed, the impact to fishermen in the Race will be minimal. Broadwater has committed to work with commercial fishermen in the Race on minimizing potential impacts from incoming LNG carriers - something that doesn't currently happen with the other vessels coming into Long Island Sound with moving safety and security zones.

Broadwater has also committed to working with the fishing industry on developing sustainable fisheries programs.



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What We've Heard: *“Broadwater will be a visual blight and will light up the night sky.”*

The Facts

Much has been said about the size of the Broadwater terminal. Some perspective is in order. The Sound covers 844,800 acres; the terminal would take up fewer than 5 acres. If the Sound were a baseball infield, the terminal would be a pebble.

Based on existing weather patterns, the FSRU could be visible from some shorelines near the central portion of the Sound on about 80 percent of the days. When visible from the nearest shoreline, a side view of the FSRU and a berthed LNG carrier would be most visible and would appear as a small two-dimensional rectangle on the horizon. This image would be about the same size as a standard paper clip held at arm's length (approximately 1 inch long by 0.25 inch high).

In the spirit of “a picture is worth a thousand words,” we encourage you to visit the Broadwater website at <http://www.broadwaterenergy.com/index.php?page=location> to see what the facility would look like during day and night from areas along the Connecticut and Long Island shorelines.

What We've Heard: *“Projects like Broadwater do not belong in an Estuary of National Significance.”*

The Facts

Predictions of dire consequences for an Estuary of National Significance contradict nearly 30 years of real-life experience. The Cove Point, Maryland LNG import facility has been situated since 1978 on the Chesapeake Bay – the estuary that created the foundation for the National Estuary Program. The Cove Point facility is an example of how energy and environmental interests can work together for the benefit of all. There is no reason why Broadwater cannot be equally successful operating in the Long Island Sound.

By opposing Broadwater and the clean-burning natural gas it would bring, opponents tacitly endorse the continued use of less efficient and older forms of power generation that are, in part, responsible for hypoxia in Long Island Sound. To address hypoxia, the Long Island Sound Study Comprehensive Management Plan – the plan created as a result of the National Estuary Program – has established a goal of reducing nitrogen inputs into the Sound by more than 50%. This goal is only achievable if more natural gas is used to generate electricity instead of the coal and oil that is currently used. The Management Plan not only recognizes the importance of commercial activities within the Estuary but contemplates continued commercial activities.



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What We've Heard: *“Broadwater will do nothing to provide the region with cleaner air and will only add to, not replace current dirty emissions from power plants in the region.”*

The Facts

Natural gas is the cleanest burning fossil fuel available today and serves as an important bridge between fossil fuels, renewables and other future fuels.

Introducing 1 billion cubic feet per day of natural gas into the Long Island Sound region will provide a cleaner-burning substitute for oil and other more emission-intensive fossil fuels that are currently transported through Long Island Sound. This new supply of natural gas is critical to enable older oil and coal power generation facilities to “repower” (modernizing or upgrading an existing facility in order to increase its capacity or efficiency) - resulting in a dramatic decrease in emissions. Not allowing a new supply of gas in the region will simply perpetuate the status quo.

What We've Heard: *“Broadwater will require more than 20 miles of new pipeline embedded in the floor of the Sound and its disastrous effect on shellfish beds and other marine life.”*

The Facts

Broadwater will require new pipeline, but unlike previous pipeline projects, this pipeline would be located in some of the deepest sections of the Sound. Broadwater's pipeline avoids the more sensitive shallow areas of the Sound, where most of the flora and fauna and shellfish beds are located. Broadwater has committed to using all of the latest technologies available to minimize any potential damage done during the installation of this pipeline. With the implementation of these construction measures, the seafloor would begin to recover immediately following construction, and Broadwater would expect that the seafloor would be entirely restored within 1 to 2 years.

What We've Heard: *“Broadwater is too dangerous to have so close to populations and it will increase our terrorism risk.”*

The Facts

The Coast Guard concluded in its Waterways Suitability Report, “There are currently no known, credible threats against the proposed Broadwater Energy facility.” Further, the report stated, “The proposed location of the FSRU (approximately 10.2 miles from Connecticut and 9.2 miles from New York) has a number of significant safety and security benefits associated with its remoteness, especially with respect to threat and consequence since it would be remote from population centers. This fact would also serve to lessen the FSRU's attractiveness as a target.”

Further, on Monday, May 7, 2007, Congressman Bishop held a field hearing on Long Island to discuss the safety and security of the Broadwater facility. Among the panelists was Stephen Flynn, occupant of the Jeane J. Kirkpatrick Chair in National Security



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Studies at the Council on Foreign Relations and former Coast Guard officer. On page 4 of Mr. Flynn's testimony (attached), he states, "The proposed location of the facility is 10.2 miles from Connecticut and 9.2 miles from [Long Island]. The 2 to 3 transits per week made by tankers arriving through the Race at the eastern end of Long Island Sound would not put the potential burn-radius in contact with any population center. In short, a successful attack on this facility or on the tankers traveling to this facility would not endanger the general public. As such, it can offer no real appeal to terrorists who are intent on causing mass U.S. casualties." His testimony also stated the following:

- There is no serious risk to public safety as long as the facility and the vessels that transit to them are at least one mile away from a population center and adequate resources are in place.
- There is no explosion or "mushroom cloud" associated with an LNG fire.
- Unlike a crude oil spill, once an LNG fire burns itself out, there would be no natural gas left to contaminate the environment.

What We've Heard: *"All security associated with Broadwater will be paid for by taxpayers and the Coast Guard is ill-equipped to provide this security."*

The Facts

Following release of the Coast Guard's Waterways Suitability Report (WSR) on Broadwater, there has been speculation and claims that safety and security recommendations laid out in the report would burden state and local taxpayers. This is not the case. Broadwater included costs for safety and security in its overall project cost estimates.

Broadwater's intent is to ensure that the terminal is self-sufficient with respect to safety and security – as would be the case if the facility were onshore, where facility operators are responsible for safety and security within their fence line. Broadwater will continue to work cooperatively with federal, state and local regulatory and law enforcement authorities to develop the project's detailed Emergency Response Plan and associated costs, which will cover the terminal as well as the LNG carriers delivering LNG to the terminal, as required by the U.S. Coast Guard.

The Coast Guard has stated in the media, "We do have the resources if the liquefied natural gas facility is going to be on the Long Island Sound."

What We've Heard: *"The Federal Aviation Administration would need to implement a no-fly zone to protect Broadwater from a potential terrorist attack."*

The Facts

The Coast Guard's Waterways Suitability Report, which is part of the Draft Environmental Impact Statement (DEIS), considered air security threats as part of the review of potential attack scenarios. Further, the DEIS clearly states, "the FAA generally does not establish no-fly zones around energy facilities such as oil or petroleum product



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storage tank areas, oil platforms, or nuclear plants." The FAA has not established "no-fly" zones around the five existing LNG import facilities in the United States, or around the Millstone and Indian Point nuclear power plants in Connecticut and New York. Additionally, "no-fly" zones have not been placed over the three onshore LNG storage facilities in Connecticut or the three on Long Island, so why would one be established over Broadwater, which would be over 9 miles from the nearest shoreline?

What We've Heard: *"A much better alternative to placing Broadwater in Long Island Sound is to put it in the Atlantic."*

The Facts

Broadwater considered all feasible alternatives and technologies to bring a new supply of cleaner-burning natural gas to the region. Broadwater's proposed Long Island Sound location is the superior location because it avoids environmental and community impacts that other locations, including the Atlantic Ocean, would create. This analysis is included in Broadwater's application and is available for public review at www.ferc.gov.

The bipartisan Federal Energy Regulatory Commission supported Broadwater's conclusion in its Draft Environmental Impact Statement released in November 2006:

"In considering alternative types of LNG terminals and alternative locations, we concluded that an FSRU sited in the central portion of Long Island Sound would be the least environmentally damaging alternative that would still meet the purpose and need of the Project. In addition, all alternative sites considered in the Atlantic Ocean offshore of Long Island would require a pipeline that would be longer than the proposed subsea pipeline and would extend through sensitive nearshore and onshore areas. In all cases, construction of an FSRU and pipeline in the Atlantic Ocean would result in greater impacts than those of the proposed Project."

What We've Heard: *"There are other new supplies of natural gas coming online in the near future making it unnecessary to build Broadwater. LNG facilities in Canada, Maine, and Massachusetts will provide us with the energy."*

The Facts

It appears the only real feature that makes these other proposed facilities more attractive to opponents is that they are not located near Connecticut or Long Island.

Most of the energy being consumed is not in Maine and Canada, but rather in New York and Connecticut. In fact, since the release of the STS-sponsored Synapse Energy Economics study, one of the Canadian projects has been terminated. Furthermore, transferring LNG from a new facility in Canada, Maine, or Massachusetts would require additional onshore and offshore pipelines, all of which have significant environmental impact. And, facilities located far away from the end user will not help lower the price of energy for consumers because they will still have to pay the costs of transporting the



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energy through the pipelines. Delivering the natural gas directly to the market that will use it reduce the transmission costs that help make energy so expensive in New York and Connecticut.

What We've Heard: *“Save the Sound’s paid consultants, Synapse Energy Economics, claim that Broadwater will have little or no impact on natural gas and energy prices.”*

The Facts

Long Island, New York City, and southern Connecticut currently depend on pipeline gas from the Gulf of Mexico and Western Canada for 85% of natural gas supplies.

Broadwater will supply natural gas directly to the region - providing approximately 30% of daily natural gas requirements. This equates to 5800 Megawatts, or enough energy to power 4 million homes.

Because the region is located at the end of the natural gas pipeline system, the regional price of gas reflects the cost to transport gas a great distance over multiple pipeline systems. Having a substantial local supply of natural gas will contribute to lower, more stable energy prices.

There are also a number of public studies that provide estimates that are similar to Broadwater’s. For example, in July 2004 the INGAA Foundation released a study where estimates were made of the increased consumer costs associated with delays in the development of new natural gas facilities. Increased consumer costs for New York State for the period of 2005 to 2020 were estimated to be \$11.4 billion, or \$760 million per year. Increased consumer costs for Connecticut were estimated to be \$1.9 billion over the same period, or \$125 million per year. The average increased costs for New York and Connecticut combined were \$885 million per year, greater than Broadwater’s estimate of \$680 million per year. This public study is available at <http://www.ingaa.org/foundation/recent.htm>

What We've Heard: *“The Broadwater technology is untested.”*

The Facts

All the technology on the Broadwater project has been tested and proven through many years of use in the natural gas and petroleum industry. The mooring system has been in operation for over 25 years. In 2005, the Energy Bridge Deepwater Port, ‘Gulf Gateway,’ which is an offshore regasification terminal with the ability to re-gasify LNG on board a floating facility, commenced operation and delivered the natural gas into existing pipelines in the Gulf of Mexico. Floating LNG terminal technology is a reality.

Learn more by visiting our website at www.broadwaterenergy.com.

