

A Briefing on Meeting Our Regional Energy Needs Without Broadwater



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Meeting our Energy Needs

The lack of a comprehensive regional energy plan has created a sense of insecurity concerning the ability to meet current and future energy needs in the New York City, New York City metropolitan area, Long Island and Connecticut. **However, the absence of a comprehensive regional energy plan should not pressure policymakers to support a ‘quick fix’, particularly a project that involves creating energy infrastructure, which will negatively impact one of our nation’s most important estuaries, the Long Island Sound.**

Broadwater energy, a joint venture between Shell Oil and TransCanada Pipeline, is proposing to build a floating storage and regasification unit (FSRU). The unit would receive, store, and regasify liquefied natural gas (LNG) from oversea gas fields. Proposed for the middle of Long Island Sound, the LNG barge would require a 22-mile pipeline dug into the bottom of the Sound to connect the facility to the existing Iroquois pipeline. Two to three tankers, carrying up to 2 to 5 billion cubic feet of natural gas, would deliver LNG to the facility every week. Each tanker would take up to 15 hours to offload into the FSRU. The FSRU would be able to store 8 billion cubic feet of natural gas and plans to deliver 1 billion cubic feet per day into the Iroquois pipeline.¹

A comprehensive energy plan should encompass a variety of energy initiatives and technologies including: renewable energy, energy conservation, pipelines, and re-powering antiquated power plants. An energy plan that relies almost exclusively on one source of power and centralizes our energy infrastructure has the greatest potential of putting the public at risk. Establishing a single source of energy for our region, such as Broadwater, puts our regional economy and the public in immense jeopardy of price vulnerability from the chronically unstable governments and anti-American views of several major LNG producing foreign nations.

The misguided assumption that increasing LNG in the US is necessary for the US to overcome its reliance on the Middle East is completely fictitious.² Many of the countries that supply the US with oil are the same countries that supply LNG, such as Qatar, Iran, Russia, Angola, Yemen and Algeria.³ Other LNG supplying nations include Trinidad, Tobago, Nigeria and Australia. The second assumption that LNG will supply the US with a “cheap” form of energy is a marketing strategy, rather than a reality for the American public. In April 2005, Qatar and 12 other gas-rich nations, including, Iran, Egypt, Nigeria, and Venezuela, met to discuss the "...ways to keep LNG prices satisfactorily high."⁴ Trinidad Energy Minister Eric Williams said agreeing on an ideal price was part of the group's effort to better understand the natural gas market. He also stated that the group had no immediate plans to coordinate production policy to influence

¹ Broadwater application to FERC, January 30, 2006, pg 6.

² "Bush raises hopes for LNG," The Australian, February 22, 2006.

<http://www.theaustralian.news.com.au/printpage/0,5942,18230265,00.html>

³ "Demand for Natural Gas Brings Big Import Plans, Objections," The New York Times, June 15, 2005.

⁴ "Ibid.

gas prices as OPEC does with oil prices, but he could not rule out such a possibility in the future.⁵

In addition, demand for LNG in Europe and the Far East has been strong, leading to higher prices. Some of the world's biggest producers of natural gas, such as Russia, Nigeria and Indonesia, are keeping more of their gas for their own markets, according to Bloomberg News. China and India show emerging trends that illustrate their consumption of natural gas is increasing at a greater rate than domestic gas production, making gas imports necessary for both countries. Although their governments still control LNG prices, these two countries will emerge as major buyers in the next decade because their willingness and ability to purchase large quantities of LNG will be enhanced by price pooling.

As with any fossil fuel, the increased demand for LNG will increase the price. Broadwater's promise that LNG resources entering the New York and Connecticut market will drive prices down is simply not substantiated. History has clearly illustrated that when dealing with energy costs the simple laws of supply and demand have been corrupted by corporate greed and manipulations as well as geopolitical circumstances beyond control.

The Broadwater LNG proposal is neither a quick fix nor a cure-all. A regional comprehensive energy plan is needed to help assess our region's energy needs. Several key projects are proposed or have already been approved that leave Broadwater unnecessary.

Natural Gas & Energy Infrastructure – Proposed and Permitted.

CCE believes that there are many current energy proposals that would be able to meet our region's energy needs. Some are in the proposal stage and others are already permitted and under construction.

1. Iroquois Expansion – Market Access Expansion Project

Iroquois Gas Transmission System, L.P. is the owner of an interstate pipeline extending 411 miles from the US-Canadian border at Waddington, NY, through the state of Connecticut to South Commack, Long Island in NY. The Iroquois pipeline also includes an approximate 36-mile mainline extension from Northport, New York through the Long Island Sound to Hunts Point, Bronx, New York and transports nearly one billion cubic feet of natural gas a day throughout the northeastern United States⁶.

⁵ "Gas Exporting Countries Explore Possibility of Target Price for Liquefied Natural Gas," The Associated Press, April 27, 2005.

⁶ http://www.iroquois.com/new-Internet/igts/MarketAccess/marketaccess_projdesc.asp

Starting in 2006, Iroquois Gas Transmission System has raised numerous questions regarding the Broadwater facility and its proposed 22-mile pipeline hook-up to the Iroquois Pipeline. In a letter addressed to the Federal Energy Regulatory Commission Iroquois listed several concerns, including:

- The lack of information regarding where Broadwater's anticipated daily one billion cubic feet of vaporized natural gas would be delivered;
- The impact on the pipeline flow should Broadwater deliveries be interrupted;
- The compatibility of Broadwater's planned lateral pipeline with the Iroquois system; and
- The placement of metering facilities in the Broadwater design.⁷

In addition, in March 2008 independent energy experts from Synapse Energy Economics testified before the members of the LIS LNG Task Force and discussed the important, yet rarely addressed, question of whether or not the existing Iroquois system has the capacity needed for the project magnitude Broadwater is proposing. Questions and uncertainties about LNG supplies and market competitiveness were also raised at this meeting.⁸

While Broadwater has struggled to answer these important concerns, Iroquois two new projects, the ***MarketAccess Expansion Project and the 8/09 Expansion Project are on track to transport an additional 300 million cubic feet of natural gas into the NY/CT/Metro region a day by November of 2009.***

This expanded capacity for this important pipeline will transport natural gas from storage facilities near Corning, New York and deliver natural gas to the new Millennium Pipeline, which will connect with the Algonquin pipeline in Ramapo, New York. From this point, Algonquin will transport the gas to the Iroquois interconnection in Brookfield, Connecticut. From Brookfield, the Iroquois pipeline will transport the gas to the existing interconnection facilities with Con Ed in the Bronx, New York. To provide this transportation service, Iroquois is proposing to add a new transfer compressor station with cooling facilities at the existing interconnection with Algonquin in Brookfield, Connecticut and new cooling facilities at its existing compressor station in Dover, New York.

Phase I- In- Service Date of November 1, 2008

- 5.8 miles of 36-inch pipeline loop in Boonville, NY
- 1.0 mile of 36-inch pipeline loop in Wright, NY
- 1.6 miles of 36-inch pipeline loop in Newtown, CT

Phase II- In-Service Date of January 1, 2009

⁷ "Pipeline Firm New Foe for Broadwater," Long Island Business News, December 5, 2005.

⁸ Hausman, Ezra D. Long Island Sound LNG Task Force Meeting. 4 March 2008.

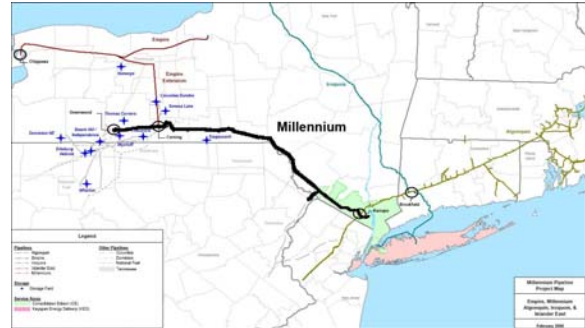
- Construction of two new 10,300 horsepower compressor units at an existing meter station facility in Milford, CT

Phase III- In-Service Date of November 1, 2009

Construction of a second 10,300 horsepower compressor unit (with cooling) at Brookfield Compressor Station in Brookfield, CT.⁹

2. Millennium Pipeline

The Millennium Pipeline is a 181.7-mile natural gas pipeline that will connect natural gas infrastructure from the Canadian border across the Southern Tier of New York State to infrastructure in Metro New York City and New England. This pipeline will provide a key component of the infrastructure to meet the Northeast's energy needs. The pipeline, running from Corning, NY to Ramapo, NY, ending at the Hudson River, replaces and upgrades an existing Columbia Gas Transmission natural gas pipeline. It will transport 525,400 cubic feet of natural gas per day. Upstream supply for the pipeline will be provided via an expansion of the Empire system that includes an 83-mile extension from near Rochester, N.Y., to Corning, N.Y. The Millennium Pipeline is under construction at the time of this report and is expected to reach completion in November 2008.



3. Blue Ocean Energy

Blue Ocean Energy would be located 20 miles east of Monmouth, NJ and 30 miles south of New York. This facility would be a floating storage and regasification facility (FSRU). It would be designed to supply 1.2 billion cubic feet of natural gas per day to the NY/NJ region. Blue Ocean Energy is currently reviewing and evaluating 3 potential already existing pipeline infrastructures as connection points for the natural gas. These options include: the Transcontinental Gas Pipeline Corp (Transco), Algonquin Gas Transmission, or the Tetco Pipeline. Contrary to Broadwater's assertions that Blue Ocean Energy will need to connect to the Iroquois pipeline, a spokesperson for Blue Ocean Energy stated emphatically that they are not looking at the Iroquois Pipeline as a connection route.¹⁰



⁹ http://www.iroquois.com/new-Internet/igts/WhatsNew/news0809_FERC.asp

¹⁰ <http://blueoceanenergy.com/>

4. The Northeast Gateway and Neptune Projects in Massachusetts

Shuttle and Regasification Vessels (SRVs) are pipelines that rise up from the ocean floor, connect to an LNG vessel and accept re-gasified LNG from tankers. After the tankers unload the LNG the SRVs then lower back down and lay on the ocean floor.

Massachusetts's Governor Mitt Romney recently approved The Bay State Plan, which are 2 offshore SRV's, the Northeast Gateway¹¹ and the Neptune Project. The two sites, 13 miles and 7 miles offshore will be on the ocean floor off Gloucester. This compromise plan came out AFTER an FSRU was proposed to the Massachusetts area. It was determined that the SRV, located in the open ocean would have less environmental impacts and require less security by the US Coast Guard, while still being able to supply 1 bcf/d to the region. These two SRV projects will boost New England's supply of natural gas by 20%. Also, such structures can be built quicker. Construction of the Northeast Gateway project is complete and is now awaiting final negotiations between the company and the US Coast Guard for approval of a security plan and operations manual.¹² This was a compromise plan created after massive opposition to an LNG barge called Weavers Cove. The company first submitted applications in 2005 – the 2008 completion demonstrates how quick SRV turnaround is compared with Broadwater's FSRU design.

An independent preliminary report was conducted to look into the possible and feasible alternatives of siting the Broadwater facility outside of Long Island Sound and explored feasible, less intrusive alternative technologies. **The report concluded that SRVs are a real option for the region and can be viable alternatives to Broadwater.** CCE believes these and other SRV case studies provide reasonable options for meeting our energy needs with less damaging infrastructure than Broadwater.

5. The Atlantic Sea LNG Island

Safe Harbor Energy, a project of the Atlantic Sea Island Group, LLC, has proposed an offshore LNG Island. This proposal is to construct an island that would be capable of storing and re-gasifying LNG. The Island would be 13.5 miles off of New York, in the Atlantic Ocean. Its storage capacity would be 15 bcf of natural gas and it is currently projected to be 60.5 square acres in size on the surface and 160 feet about the water line. The Island would serve the same markets as Broadwater and be capable of supplying 2 bcf/d, *twice the capacity of Broadwater*. Broadwater claims the pipeline connection for the Atlantic Sea Island is problematic because of the distance that would be needed for the pipeline to travel to shore. However, when CCE representatives met with Howard Bovers, Chairman of the Atlantic Sea Island Group, he conveyed that the necessary pipeline connection would be 14 miles from the proposed island to the existing Transco Pipeline. This is 8 miles **LESS** that what is needed for the Broadwater connection.

¹¹ <http://www.northeastgateway.com/overview/overview.php>

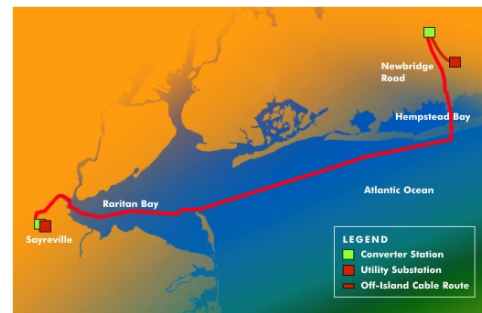
¹² Reuters, 9 January 2008. Boston Offshore LNG Port Nears Clearance to Open. Boston, MA USA
<http://www.reuters.com/article/companyNews/idUSN0959955620080109>

6. Crown Landing

Crown Landing would be located in Logan Township, NJ. FERC approved this facility in June 2006. This facility would be a land-based LNG facility that would be built on 175-acre lot. The facility would have the potential to send out 1.2 billion cubic feet of natural gas to the northeast region and the ability to store 9.5 billion cubic feet of natural gas. The terminal would connect to the Columbia Gas Transmission system, the Transcontinental Gas Pipeline Corp (Transco) system, and the Texas Eastern Transmission system. The facility is estimated to provide 15% of the mid-Atlantic region's current energy demand.¹³

7. Neptune Cable

The Neptune Cable is a 660-megawatt cable that connects Long Island to New Jersey, and the mid-Atlantic and southeastern states for the first time.¹⁴ The 67-mile-long cable in conjunction with the Cross-Sound Cable between New Haven, Connecticut, and Shoreham, will create a corridor for electric transmission from the Mid-Atlantic States through Long Island on into New England and Canada.¹⁵ This is enough power to provide electricity for 660,000 average-sized houses on Long Island. The Neptune Cable is operational. This is an important component to the Long Island Energy Plan and will provide new source of electricity for Long Island.



¹³ <http://www.bpcrownlanding.com/go/site/569/>

¹⁴ "Neptune Project Moving According to Plan," Hicksville Illustrated News, January 13, 2006.

¹⁵ <http://www.lipower.org/projects/neptune.html>

Alternative Energy Solutions

Proposed Project	Location	Amount of Gas to Region	Permitting Process
Atlantic Sea Island (land based LNG Facility)	13.5 miles off the south shore of Long Island, in the Atlantic Ocean	2 bcfd of Natural Gas	US Coast Guard is the lead agency. Submitted in 2007.
Gateway & Neptune Project (offshore SRV pipelines)	13 miles and 7 miles offshore on the ocean floor off Gloucester, MA	1 bcfd of Natural Gas	Approved and construction has begun.
Crown Landing (land based LNG facility)	Logan Township, NJ	1.2 bcfd of Natural Gas	Approved in June 2006 by FERC
Blue Ocean Energy (Offshore FSRU)	Offshore--20 miles east of Monmouth, NJ and 30 miles south of Long Island	1.2 bcfd of Natural Gas	Lead Agency- US Maritime Administration. Due to file permit by 2009
Millennium Pipeline (Pipeline infrastructure)	Canadian border across the Southern Tier of New York State	525,400 cubic feet of natural gas per day	All permits are complete.
Neptune Cable (Electric Cable)	Cable connecting New Jersey to Long Island	660-megawatt cable	Currently operating
Iroquois Expansion (pipeline expansion)	Expansion of capacity for transmission using existing infrastructure	300 mcf per day	Approved and scheduled to be in service 2009

Summary

The “energy crises” theory promoted by Broadwater is a marketing tool and not a reflection of the energy need in New York. We have a need not a crisis. It is up to the policy makers in New York, Connecticut and the Northeast region to set an energy policy that meets our energy demand but also protects our environment and our national security. Energy companies are aggressively and vehemently fighting to set our national energy policy for the next 30 years. Corporate energy policies will be carefully crafted to benefit their corporate bottom line rather than benefit neither the public nor our nation.

The projects outlined in this summary are either recent additions to the New York energy grid or need to be considered as potential energy sources for the future. Each will help New York meet our energy demand. This compilation of projects, in addition to the analysis prepared by Synapse Energy Economics, January 23, 2006, provides a more objective and comprehensive energy assessment of our region’s growing energy infrastructure and needs. In addition to the infrastructure in this summary, New York has been adding wind generation throughout the upstate region and has been aggressively seeking to address energy efficiency and conservation programs. Energy efficiency is the cleanest, easiest and most cost effective way to reduce energy consumption thereby reducing our energy needs.

The facts divulge a diverse energy infrastructure can be established that will serve the public need and protect our social and natural resources, such as the Long Island Sound.