October 19, 2009

Thomas Congdon
Deputy Secretary for Energy
Chair, NY State Energy Planning Board
SEP Comments
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

RE: Comments on Draft 2009 New York State Energy Plan

Dear Chair and Deputy Secretary Congdon and members of the State Energy Planning Board,

Please accept these comments from Clean Ocean Action (COA) and the American Littoral Society. Clean Ocean Action is a regional, broad-based coalition of 125 conservation, environmental, fishing, boating, diving, student, surfing, women's, business, service, and community groups with a mission to improve the degraded water quality of the marine waters off the New Jersey/New York coast. The American Littoral Society, with more than 5,000 members in 49 states, consists of scientists, naturalists, environmentalists, divers, fishing enthusiasts, and citizens from all walks of life and chapters serving the Northeast, Mid-Atlantic, and Southeast regions.

COA applauds New York State's efforts to re-instate an energy planning process and its release of a Draft State Energy Plan ("Draft Plan"). The Draft Plan has many strong elements, such as a strong focus on energy efficiency, that COA supports. There are also areas of concern. In particular, COA is alarmed at the favorable comments made toward liquefied natural gas (LNG) importation terminals. COA's comments focus on this issue in particular given its grave implications and timeliness based on three pending proposals.

Based on extensive research and evaluation, COA opposes any new LNG importation terminals in the region and calls on the Planning Board to reach this same conclusion in the Final State Energy Plan. COA is part of a coalition of over 70 New York and New Jersey groups who are fighting the newest LNG proposals in the Atlantic Ocean's shared coastal water: the Atlantic Sea Island Group's (ASIG) "Safe Harbor Energy," Excalibur Energy's "Liberty Natural Gas," and Exxon's "BlueOcean Energy." The coalition is diverse, ranging from surfers to fishermen, nuns to Pickens Plan groups, and labor to civic associations. COA has studied the issue of LNG for years and concluded that there is no public interest in allowing any LNG import terminals into this region.

Pro-LNG Statements in Draft Plan

The Draft Plan and its supporting Natural Gas Assessment document contain concerning language favorable toward new LNG terminals. However, at the September 10 Draft Plan hearing in Brooklyn, members of the Planning Board noted that the Draft Plan does not endorse

LNG terminals and instead just examines the status quo so that all issues are on the table for consideration.

While it is re-assuring to hear from some members that the state has not concluded in favor of LNG, it is difficult to argue that statements such as the following do not demonstrate support for LNG:

> "**The State should take specific steps to encourage investment in natural gas infrastructure, including LNG facilities**, that could supply future downstate requirements consistent with the State's planning objectives by: (i) providing project developers rigorous, pre-application, all-agency evaluations of state and local project siting, environmental and safety concerns, and (ii) maximizing agency coordination during permitting proceedings."[1] (Emphasis added.)

In addition to encouraging investments in LNG terminals, the Draft Plan seeks to help streamline the permitting process to help LNG terminals receive approval:

> "The State can reduce potential delays and facilitate investment in natural gas infrastructure, including LNG facilities for meeting future downstate requirements, by: (a) providing project developers rigorous, pre-application, all-agency evaluations of State and local project siting, environmental and safety concerns; and (b) maximizing agency coordination during permitting proceedings. By providing early indications of acceptable sites, projects that can help meet projected demand while satisfying environmental and safety concerns, can be encouraged."[2]

It is fair and appropriate for the Draft Plan to consider any perceived benefits and costs of LNG terminals, as the Draft Plan does elsewhere. However, it does not conduct a robust comparison and it appears the Draft Plan also reaches a conclusion on this issue without due diligence on costs, need, and impacts. Indeed, Ronald Lukas of the Atlantic Sea Island Group praised the Draft Plan's statements on LNG at the September 9th Draft Plan hearing in Farmingdale. Regardless of the intentions in the Draft Plan, COA asks that the Final Plan endorses a policy of New York State actively opposing any such efforts to import foreign natural gas in the dirtier method of LNG.

Executive Order 2 & Broadwater

The pro-LNG language is ironic and particularly disappointing because the Draft Plan was a direct result of Governor David Paterson's rejection of the Broadwater LNG proposal from the Long Island Sound. On April 10, 2008, Governor Paterson announced the denial of a permit for Broadwater. In his speech he also announced Executive Order 2 and the State Energy Planning Board as alternatives to address New York's energy issues with better solutions than the proposed LNG terminal:

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[1] Natural Gas Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 41 (emphasis added).
[2] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 61.

> "The fact is that now that Broadwater is behind us, and it is behind us, we still have an immense responsibility to develop energy policy for the public that at this point remains incomplete. But what I want all Long Island residents to know, is that in this administration we're going to find a workable, sensible, achievable way to decrease the consumption of energy and to find renewable energy sources to go into the future. We used to have in New York State an energy plan that coordinated the agencies and all of energy decision making capacity into one far functional organization and plan. But we don't have it. In 2003, it was discontinued. So think about it, with all that we learned about climate change, with all that we know about global warming, with all that we have experienced in new technology and new renewable sources we don't have a plan to fit that in. As of today, we do. I am issuing an Executive Order today that will have a state energy planning board."[3]

Thus, it is important for the Energy Planning Board to reflect on the reasons Governor Paterson gave for his opposition to Broadwater. Much of what he said equally applies to the LNG proposals in the Atlantic Ocean:

> "Frankly, Broadwater would scar Long Island Sound and it would have established a very dangerous precedent of industrializing a waterway that generations of people have spent millions of dollars trying to preserve. It would severely curtail commercial and recreational fishing and would damage the sea life that lives right in the Sound….Now if we didn't have any other alternative than to use liquefied gas, perhaps we would have made a different decision. But it would have been a false choice, because it would be shame on us, it would be our fault if we couldn't establish a responsible economic policy that would create a condition other than sacrificing one of our greatest and natural economic resources in order to achieve."[4]

Executive Order 2 also gave insight into the energy future that Governor Paterson seeks including reduced dependence on both fossil fuels and imported fuels. The proposed LNG terminals are designed solely to import foreign natural gas, a fossil fuel.

It is also apparent that Executive Order 2 was used to develop the Draft Plan's five Objectives, which COA applauds: reliability, greenhouse gases, energy costs and economic competitiveness, public health and environmental risks, and energy independence. COA now addresses each Objective and the relationship to new LNG terminals and LNG imports generally.

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[3] Speech by New York Governor David Paterson announcing denial of permit for the Broadwater LNG proposal, Sunken Meadow State Park, Apr. 10, 2008, "Paterson dumps Broadwater," YouTube, at http://www.youtube.com/watch?v=iHbtNE8sar8 (last visited Sept. 2, 2009).

[4] Speech by New York Governor David Paterson announcing denial of permit for the Broadwater LNG proposal, Sunken Meadow State Park, Apr. 10, 2008, "Paterson dumps Broadwater," YouTube, at http://www.youtube.com/watch?v=iHbtNE8sar8 (last visited Sept. 2, 2009).

Objective 1 – Maintain Reliability

The Draft Plan's first Objective is "Maintain Reliability: Assure that New York has reliable energy and transportation systems."[5] While there are real reliability concerns for natural gas in New York, particularly downstate, the newest LNG proposals provide no guaranteed reliability or relief. Indeed, LNG terminals could harm reliability as discussed below.

Natural Gas Supply

For natural gas, the first question for addressing reliability is whether or not adequate domestic supplies exist. No reasonable energy analyst would dispute that the answer is "Yes." As the Draft Plan's Natural Gas Assessment notes, "natural gas supplies are expected to remain adequate to meet projected demand, both nationally and for New York."[6] The U.S. Energy Information Administration's (EIA) Annual Energy Outlook 2009 shows that, due to abundant domestic supplies, the U.S. will become even more energy independent for natural gas despite increasing national demand. By 2030, Americans will receive 97% of their natural gas needs from the U.S., up from 84% currently.[7] Indeed the EIA estimates U.S. reserves at over 70 years of domestic consumption at 2007 levels.[8] Many analysts estimate over 100 years worth of supply.[9]

Natural Gas Delivery

Despite adequate supplies, there are concerns about delivery and capacity of existing infrastructure. As the Draft Plan notes, "adequate pipeline delivery capacity is critical to ensure that available gas supplies can be provided to the markets that require them."[10]

Governor Paterson also recognized this issue when denying the Broadwater LNG proposal:

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[5] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 2.
[6] Natural Gas Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 1.
[7] Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), March 2009, p. 42.
[8] Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), March 2009, p. 42.
[9] *See e.g.*, "The United States has more than a 100-year supply of natural gas, which could possibly double as the new shale plans continue to reveal more gas, John Pinkerton, CEO and chairman of Range Resources Corp., said." Katherine Ling, *Natural Gas Looks for Champions to Gain Incentives in Senate Climate Bill*, New York Times, Sept. 25, 2009, at http://www.nytimes.com/cwire/2009/09/25/25climatewire-natural-gas-looks-for-champions-to-gain-ince-24779.html?pagewanted=1 (last visited Sept. 29, 2009). "In just three years, the US has moved from gas shortage projection to indigenous supply for the next 100-years, [Robert] Riley[, chairman and chief executive officer of BP Trinidad and Tobago (BPTT)] said." Linda Hutchinson-Jafar, Rivalry sends Trinidad in search of new LNG markets, The Gleaner, July 4, 2009, at http://www.jamaica-gleaner.com/gleaner/20090704/business/business3.html (last visited July 4, 2009). "The report by the Potential Gas Committee, a nonprofit group that provides closely watched analyses of U.S. resources, shows a 35 percent jump in domestic gas estimates. The United States has a total resource base of 1,836 trillion cubic feet (tcf) worth of likely and potential resources, the report says, a sharp jump from the last estimate two years ago of 1,321 tcf, and the highest in the group's 44-year history. With the addition of Energy Department estimates of proved reserves, the total U.S. future supply is 2,074 tcf, a rise of more than 35 percent from the committee's last biennial estimate." Ben Geman and Katherine Ling, *Report of abundant U.S. supplies rattles energy debate*, Greenwire, E&E Publishing Service, June 18, 2009.
[10] Natural Gas Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 1.

> "We also want to increase the efficiency of natural gas by using some cutting edge procedures developed at some of our major institutions to accomplish that. But we also have to think of the supply side, we have to create the pipelines that would include down state New York and Long Island so that we can be further included in the grid until we can find more affordable and more renewable sources of energy."[11]

It is important the Energy Planning Board recognize that Governor Paterson cited new pipelines, not new LNG terminals, as one of the solutions. Further, he noted new pipelines as a temporary solution, while the state transitions to renewable energy. Allowing for LNG terminals would create a long term commitment to foreign natural gas, undermining the "bridge fuel" concept for natural gas.

New pipelines in the region are a reality. As a Draft Plan supporting document states, "[t]here are four planned pipeline projects with a total capacity of 1.1 Bcfd for the State. Over 600 MMcfd of additional capacity directed towards downstate New York."[12] Further, as forecasted, New Jersey's Energy Master Plan will result in New Jersey consuming less natural gas by 2020 than it currently does.[13] As a result, more supplies will be capable of flowing through New Jersey to New York.

A better alternative to increasing supply is to reduce demand. Efficiency and conservation measures are the greenest energy solutions and commonly the most cost effective. New York must make reduced demand for natural gas its primary measure for addressing issues of pipeline constraints and supply reliability.

Efficiency measures can also alleviate peak demand while increasing natural gas supplies for re-powering retired power plants and replacing the Indian Point nuclear reactors. As was demonstrated in the New Jersey Energy Master Plan, significant efficiency gains are easily found in the residential, commercial, and industrial sectors, where peak demand occurs in the winter.[14] These savings can be shifted toward electricity generation, which peaks in the summer. As a result, New York can reduce peak natural gas demand and increase natural gas generated electricity generation without increasing overall demand for natural gas. But again, the better solution is to reduce demand across all sectors when it comes to fossil fuels.

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[11] Speech by New York Governor David Paterson announcing denial of permit for the Broadwater LNG proposal, Sunken Meadow State Park, Apr. 10, 2008, "Paterson dumps Broadwater," YouTube, at http://www.youtube.com/watch?v=iHbtNE8sar8 (last visited Sept. 2, 2009).

[12] Kevin Petak and Frank Brock, *NYSERDA Case 1 Results* (supporting document for New York 2009 Draft State Energy Plan), IFC International, June 24, 2009, p. 14, at http://www.nysenergyplan.com/presentations/RIAMS%20Reference%20Case.pdf (last visited Sept. 1, 2009).

[13] Modeling Report for the New Jersey Energy Master Plan, Edward J. Bloustein School of Planning and Public Policy, Rutgers, Oct. 21, 2008, p. 23. *Compare to* Annual New Jersey Natural Gas Total Consumption (Million Cubic Feet), Natural Gas Navigator, Energy Information Administration, U.S. Department of Energy, at http://tonto.eia.doe.gov/dnav/ng/hist/na1490_snj_2a.htm (last visited July 28, 2009).

[14] Modeling Report for the New Jersey Energy Master Plan, Edward J. Bloustein School of Planning and Public Policy, Rutgers, Oct. 21, 2008, p. 22.

Natural Gas Demand

The extent of future pipeline constraints is dependent upon future natural gas demand. As the Draft Plan's Natural Gas Assessment finds, future projected constraints will be minimal and the state can easily meet the minimal electricity production needs with other excess capacity:

> "For the Reference Case, the peak day total unmet demand of 56 MMcfd for just New York would be considered relatively small when compared to the total demand of 7,160 MMcfd. If the total unmet demand was from the electric generation sector, this would be equivalent to approximately 326 MW of electric generation throughout the State. Again, this is relatively small amount of capacity when compared to the total excess capacity on the electric system during a peak winter day."[15]

To compare, the Liberty LNG proposal is 43 times larger than this unmet demand. ASIG's LNG proposal is 36 times larger and Exxon's 21 times larger. These LNG proposals are completely out of proportion to reality and indeed would replace domestic energy supplies instead of alleviating any relatively minimal constraints if successful.

The Draft Plan also discusses the additional supplies that would be necessary if natural gas were used to repower certain electricity plants or replace the generation from the Indian Point reactors. Repowering would result in an increase of 0.11 billion cubic feet per day (bcfd) in New York on a peak day.[16] Replacing Indian Point with a 2.5 GW natural gas fired combined cycle plant would require a base load consumption of 0.337 bcfd.[17] Again, the Liberty, ASIG, and Exxon LNG proposals are wholly out of character with proposed send out rates of 2.4, 2.0, and 1.2 bcfd, respectively.

The Draft Plan itself notes that any shortage for electric generation is more cost effectively met through efficiency measures:

> "In New York, electric efficiency can be improved enough to offset near-term projected increases in electric demand, reducing the need for additional generating capacity for reliability needs, and saving money for ratepayers. Postponing construction of new fossil-fuel fired generation would allow time to develop the low-carbon-intensity electric generation necessary to reduce GHG emissions for the long-term."[18]

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[15] Natural Gas Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 32.
[16] Kevin Petak and Frank Brock, *NYSERDA Repower Case Results* (supporting document for New York 2009 Draft State Energy Plan), IFC International, July 1, 2009, p. 2, at http://www.nysenergyplan.com/presentations/Repower%20Case%20Slides.pdf (last visited Oct. 6, 2009).
[17] Kevin Petak and Frank Brock, *NYSERDA No Indian Point Case Results* (supporting document for New York 2009 Draft State Energy Plan), IFC International, June 26, 2009, p. 2, at http://www.nysenergyplan.com/presentations/Indian%20Point%20Retirement%20Case%20Slides.pdf (last visited Oct. 6, 2009).
[18] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 7.

Finally, the newly appointed chairman of the Federal Energy Regulatory Commission (FERC), Jon Wellinghoff, also has found no need for new LNG terminals in the region. During the Bush Administration, Wellinghoff was already one of the five FERC Commissioners who reviewed applications for land-based LNG import terminals. He issued a dissenting opinion for a new LNG terminal in Maryland. He found it was not in the public interest, that a new LNG terminal was "not needed to serve the energy needs of the Mid-Atlantic [NY, NJ, PA] and South Atlantic regions," and that "future energy needs of these regions can be better met with alternative resources."[19] Chairman Wellinghoff's decision came about a year after the Broadwater decision and reflected the new state of knowledge and information for the natural gas industry. Chairman Wellinghoff noted that the other Commissioner's were still relying on "outdated" information and that "[m]ore recent data" informed his decision as to a lack of need for the region, including New York.[20]

Existing LNG Terminals Underutilized

Even if LNG is needed or desired, existing LNG terminals are drastically under-utilized. In 2008, the existing LNG terminals averaged below 10% utilization.[21] Further, all existing U.S. LNG import terminals are on the East and Gulf Coasts, connecting to the pipeline network that supplies New York. If there is concern that another set of hurricanes like Katrina and Rita will disrupt production in the Gulf of Mexico, there are now five LNG terminals in that region that add redundancy. Even closer, there are terminals in Georgia, Maryland, two in Massachusetts (with a third under construction), and one in New Brunswick, Canada, connected to pipelines supplying New England.

Given the recent and significant increase in LNG import capacity, there is now enough capacity in the Northeast to supply all of New England with foreign natural gas from LNG imports and still have capacity left over to meet a third of New York's demand.[22] To reiterate, New England could become 100% dependent on foreign LNG imports and the existing and under construction terminals would still not be fully utilized.

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[19] *AES Sparrows Point LNG, LLC*, 126 FERC ¶ 61,019, at p. 1 of dissent (2009) (Wellinghoff, J. dissenting).
[20] *AES Sparrows Point LNG, LLC*, 126 FERC ¶ 61,019, at p. 2 of dissent (2009) (Wellinghoff, J. dissenting).
[21] Table 116: Natural Gas Imports and Exports, Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), Mar. 2009; Table 117: Natural Gas Consumption by End-Use Sector and Census Division, Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), Mar. 2009.
[22] The capacity of the Everett LNG terminal is 1.035 billion cubic feet per day (bcfd), Northeast Gateway is 0.8 bcfd, and Canaport is 1.0 bcfd for a total of 2.835 bcfd. North American LNG Terminals – Approved, Office of Energy Projects, Federal Energy Regulatory Commission, Sept. 15, 2009, at http://www.ferc.gov/industries/lng/indus-act/terminals/lng-approved.pdf (last visited Oct. 5, 2009). In 2008, New England consumed 2.26 bcfd of natural gas (and imported only 0.47 bcfd of LNG). Table 117: Natural Gas Consumption by End-Use Sector and Census Division, Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), Mar. 2009. Further, the Neptune LNG terminal should soon be completed and add 0.4 bcfd for a total North East capacity of 3.235 bcfd. North American LNG Terminals – Existing, Office of Energy Projects, Federal Energy Regulatory Commission, Sept. 15, 2009, at http://www.ferc.gov/industries/lng/indus-act/terminals/lng-existing.pdf (last visited Oct. 5, 2009). This would leave New York with 0.975 bcfd of capacity available if New England filled all of its 2008 demand with foreign LNG. In 2007, New York consumed 3.26 bcfd. Annual New York Natural Gas Total Consumption (Million Cubic Feet), Natural Gas Navigator, Energy Information Administration, U.S. Department of Energy, at http://tonto.eia.doe.gov/dnav/ng/hist/na1490_sny_2a.htm (last visited Oct. 5, 2009).

To give credit, a Draft Plan supporting document does state that "[p]eak day curtailments in both New York and New England may be eliminated with increased LNG send-out from the Canaport and Everette [sic] import terminals."[23] However, it is important to note that other terminals in the region exist and even terminals in the Gulf add reliability by offering redundancy in case of supply disruptions. Not only do Canaport and Everett "eliminate" "peak day curtailments in both New York and New England," the additional terminals add excess, un-utilized capacity that are more than capable of handling any unforeseen surges in natural gas demand or disruptions in supply.

The Draft Plan's Natural Gas Assessment also demonstrates that industry has overbuilt for LNG terminals. "North American re-gasification capacity is expected to continue to exceed LNG deliveries. Utilization of North American re-gasification facilities averages about 20 percent of capacity throughout the projection period."[24] The U.S. Energy Information Administration actually finds that, through 2030, 20 percent will be the high point of utilization as opposed to the average. Capacity will reach 21% in 2018, the projected year for peak imports from 2008 to 2030, if construction is never begun on another LNG terminal.[25]

LNG is Unreliable

LNG import terminals also provide no guarantee of increased reliability, and indeed could hurt reliability for affordable natural gas supplies.

The business model for LNG terminals in the U.S. demonstrates that they do not provide reliability. Instead of bringing new supplies to host states, most LNG terminals in the U.S. serve as "dumping grounds" for excess LNG supplies that companies do not sell on the world market.[26] "LNG sellers will first fill up markets in Asia and Europe, which pay top prices. What's left over will likely head to underused terminals in North America. It's 'the market of last resort,' says Ira Joseph, an LNG analyst with PIRA Energy in New York."[27] The business model reflects not entering the U.S. market to add reliable supplies but rather gaining access to a market that can absorb excess supplies. This explains the drastic underutilization of existing terminals. It also explains why imports are more common in warmer summer months (when global demand is down), even though peak demand is in the winter months, where New York would want the greatest reliability.

Not only do LNG terminals provide no guarantee of reliability, they could actually decrease reliability. If these LNG terminals are built, that will serve as a disincentive to new domestic projects that are considering increasing supplies of energy into the region. Many companies will choose not to compete against energy giants like Exxon who can squeeze out competition. As a

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[23] Kevin Petak and Frank Brock, *NYSERDA Case 1 Results* (supporting document for New York 2009 Draft State Energy Plan), IFC International, June 24, 2009, p. 22, at http://www.nysenergyplan.com/presentations/RIAMS%20Reference%20Case.pdf (last visited Sept. 1, 2009).
[24] Natural Gas Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 23.
[25] Table 116: Natural Gas Imports and Exports, Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), Mar. 2009; Table 117: Natural Gas Consumption by End-Use Sector and Census Division, Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), Mar. 2009.
[26] Russell Gold, *Bad Call*, Wall Street Journal, Feb. 9, 2009, p. R7.
[27] Russell Gold, *Bad Call*, Wall Street Journal, Feb. 9, 2009, p. R7.

result, the region will become more dependent on foreign LNG and prices will rise to reflect the global natural gas market.

Massachusetts serves as a good example of this problem with increased dependency on foreign LNG. The Everett LNG terminal came online in 1971 and, unlike other terminals, actually became a reliable source for the region. As a result, all of New England is now 20-40% reliant on LNG for its natural gas needs.[28] When New England began further increasing consumption, domestic infrastructure could not provide more affordable domestic natural gas and the answer has been two new LNG terminals. New York must not head down this path of neglecting domestic energy, which provides a more affordable means of reliability.

Finally, if New York does become dependent upon LNG imports, its supplies are only as reliable as the countries that provide the LNG. Over two-thirds of the world's natural gas is in Russia and the Middle East.[29] These same regions are forming a cartel similar to OPEC that could lead to further increases in the costs of LNG.[30] Exxon specifically solicited Russian controlled Gazprom to supply the BlueOcean Energy terminal.[31] Gazprom, the world's largest gas company,[32] is the same entity that cut off natural gas supplies to the Ukraine last winter and impacted reliability for Europe.[33]

Objective 2 – Reduce Greenhouse Gas Emissions

The Draft Plan's second Objective is "Reduce GHG Emissions: Support energy and transportation systems that enable the State to significantly reduce GHG emissions, both to do the State's part in responding to the dangers posed by climate change and to position the State to compete in a national and global carbon-constrained economy."[34] This clearly stems from Executive Order 2, which states that "the burning of fossil fuels is a major contributor to global climate change, which poses a serious threat to the environment and the public health in New York State"[35] COA applauds this commitment. However, again, LNG cannot support this Objective.

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[28] Kris Olson, *Official vows LNG pipeline work will not interfere with Race Week*, The Marblehead Reporter, July 12, 2008, at http://www.wickedlocal.com/marblehead/sports/x1743993342/Official-vows-LNG-pipeline-work-will-not-interfere-with-Race-Week (last visited Oct. 5, 2009).

[29] 40.5% of the world's natural gas reserves are in the Middle East. 26.3% of the world's natural gas reserves are in the Russian Federation. BP Statistical Review of World Energy 2007, BP, p. 22.

[30] John-Laurent Tronche, *Natural gas troika could have impact on shale plays*, Fort Worth Business Press, Jan. 19, 2009, at http://www.fwbusinesspress.com/display.php?id=9341 (last visited Oct. 5, 2009).

[31] Roman Kupchinsky, *Russia, LNG, and the U.S. Natural Gas Market*, Eurasia Daily Monitor, Vol. 5, Issue 233, Dec. 8, 2008, at http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Bswords%5D=8fd5893941d69d0be3f378576261ae3e&tx_ttnews%5Bany_of_the_words%5D=lng&tx_ttnews%5Btt_news%5D=34241&tx_ttnews%5BbackPid%5D=7&cHash=453e911fa9 (last visited Oct. 5, 2009).

[32] John-Laurent Tronche, *Foreign LNG shipments bring competition to U.S. gas market*, Fort Worth Business Press, May 4, 2009, at http://www.fwbusinesspress.com/display.php?id=10143 (last visited May 4, 2009).

[33] John-Laurent Tronche, *Natural gas troika could have impact on shale plays*, Fort Worth Business Press, Jan. 19, 2009, at http://www.fwbusinesspress.com/display.php?id=9341 (last visited Oct. 5, 2009).

[34] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 2.

[35] Executive Order No. 2, Establishing a State Energy Planning Board and Authorizing the Creation and Implementation of a State Energy Plan, State of New York, Apr. 9, 2008.

Natural Gas and Greenhouse Gas Emissions

While natural gas is cleaner than coal and oil, it is not "clean." Natural gas is a significant source of greenhouse gas emissions in the United States and is thus not the answer to climate change. In New York, natural gas is the largest source of carbon dioxide (CO_2) emissions, ahead of gasoline and coal (including coal-based electricity imports).[36]

Certainly New York must focus strongly on ending its dependence on the dirtiest fuels, like coal. But natural gas is already too heavily relied upon to increase its use and meet long term climate change goals. Governor Paterson issued Executive Order 24, which sets a state goal to reduce greenhouse gas emissions in New York 80 percent below 1990 levels by the year 2050. With 1990 levels at 277 million tons CO_2 equivalent (CO_2e), New York must reduce emissions to 55 million tons CO_2e by 2050.[37] In 2007, natural gas consumption in New York emitted over 70 million tons CO_2. New York could stop burning every other fossil fuel and emit CO_2 from no other sources but it would still exceed its goal by 27% if it continued burning the same amount of natural gas.

Executive Order 2 states that "discrete State actions and decision-making regarding energy resources should be based on clearly identified policies and long-range energy planning objectives and strategies"[38] The final State Energy Plan must reflect long term energy goals. Investing in LNG infrastructure that will increase the long term reliance on natural gas will undermine this provision of Executive Order 2.

There is also no clear need for New York to significantly increase its natural gas consumption as a short-term strategy for fighting climate change. Governor Paterson's 15% efficiency by 2015 goal will result in saving about 25,000,000 MWh's by 2015.[39] This is enough to offset the 21,405,542 MWh's generated by coal in New York.[40] Meeting Governor Paterson's 30% renewable portfolio standard by 2015 goal will result in over 10,000,000 MWh's of new green generation,[41] enough to offset the 8,195,109 MWh's generated by petroleum in New York.[42]

As previously stated, the Draft Plan itself notes that electric efficiency gains can offset the need for new generating capacity, "reducing the need for additional generating capacity for reliability needs, and saving money for ratepayers."[43] An analysis by McKinsey & Co. supports this conclusion and shows that a coal to gas switch is one of the least cost effective measures for

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[36] *New York State Greenhouse Gas Emissions Inventory and Forecasts for the 2009 State Energy Plan*, New York State Energy Research and Development Authority, Aug. 6, 2009, p. 8.
[37] *New York State Greenhouse Gas Emissions Inventory and Forecasts for the 2009 State Energy Plan*, New York State Energy Research and Development Authority, Aug. 6, 2009, p. 10.
[38] Executive Order No. 2, Establishing a State Energy Planning Board and Authorizing the Creation and Implementation of a State Energy Plan, State of New York, Apr. 9, 2008.
[39] Energy Efficiency Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 22.
[40] State Electricity Profiles, Energy Information Administration, U.S. Department of Energy, p. 195 at http://www.eia.doe.gov/cneaf/electricity/st_profiles/new_york.pdf (last visited Oct. 5, 2009).
[41] Natural Gas Assessment, New York Draft 2009 State Energy Plan, Aug. 2009, p. 45.
[42] State Electricity Profiles, Energy Information Administration, U.S. Department of Energy, p. 195 at http://www.eia.doe.gov/cneaf/electricity/st_profiles/new_york.pdf (last visited Oct. 5, 2009).
[43] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 7.

abating CO_2, at over $60 per ton of CO_2, and it would have minimal effect.[44] McKinsey & Co. lists many CO_2 abatement methods that actually have a bigger impact and pay for themselves over time, with savings (as opposed to costs) of as much as nearly $120 per ton of CO_2. The most appropriate and needed public policy would direct investments to energy conservation, efficiency, and renewables, getting greater CO_2 reductions with less money.

Conservation, efficiency, and renewable technologies, not increased natural gas consumption, must be used to retire coal and petroleum power plants. Indeed, while coal and oil should receive strong focus, New York can and must begin looking into how it will reduce its natural gas consumption as well.

LNG and Greenhouse Gas Emissions

While natural gas is not "clean," LNG is even far dirtier and will undermine New York's goal of combating climate change. At times, LNG can be more polluting than coal. LNG significantly increases pollution as compared to domestic natural gas due to its energy intensive lifecycle. In addition to the same stages that get domestic natural gas from the ground to the consumer, LNG must be cooled to -259°F, shipped across the ocean, and then heated into a gaseous state. One evaluation of the effects of importing LNG to California demonstrated that "[t]he combined impact of venting CO_2 [carbon dioxide] during processing and the energy penalty of the LNG supply chain would increase CO_2 emissions by roughly 20 to 40 percent over California's current emissions from domestic sources of natural gas."[45]

A published study by Carnegie Mellon researchers showed that under existing circumstances, the lifecycle from natural gas plants fueled by LNG can actually result in more overall CO_2 emissions than the lifecycle from coal plants. When looking at the upper bound life-cycle emission factor for coal, the study found that "the range of life-cycle GHG emissions of electricity generated with LNG is significantly closer to the range of emissions from coal than the life-cycle emissions of natural gas produced in North America."[46] The process of liquefaction of natural gas into LNG alone produces more CO_2 emissions than the whole lifecycle of coal prior to combustion, including production, processing, and transport.[47]

A project specific study was conducted of the lifecycle emissions resulting from BHP Billiton's proposed Cabrillo LNG terminal off California. "Compared to the emissions from end-use combustion of the gas — which is a common measure of the global warming contribution of

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[44] Jon Creyts, *et al.*, *Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?*, U.S. Greenhouse Gas Abatement Mapping Initiative, Executive Report, McKinsey & Company, Dec. 2007, p. xiii, Exhibit B U.S. Mid-Range Abatement Curve – 2030, at http://www.mckinsey.com/clientservice/ccsi/greenhousegas.asp (last visited Aug. 6, 2008).

[45] John Coequyt, *et al.*, *Liquid Natural Gas: A Roadblock to a Clean Energy Future*, Greenpeace, p. 3.

[46] Paulina Jaramillo, W. Michael Griffin, and H. Scott Matthews, *Comparative Life-Cycle Air Emissions of Coal, Domestic Natural Gas, LNG, and SNG for Electricity Generation*, Environ. Sci. Technol. 2007, 41, p. 6293.

[47] Paulina Jaramillo, W. Michael Griffin, and H. Scott Matthews, *Comparative Life-Cycle Air Emissions of Coal, Domestic Natural Gas, LNG, and SNG for Electricity Generation*, Figure 3Midpoint Life-Cycle GHG Emissions Using Advanced Technologies with CCS, Environ. Sci. Technol. 2007, 41, p. 6295.

natural gas — the rest of the supply chain emits an additional 44 percent."[48] These "supply chain emissions from production through end-use of the delivered natural gas equal to 4.3 to 4.9 percent of California's total GHG emissions, and 5.3 to 5.9 percent of CO_2 emissions using Energy Information Administration state emissions data. Broadening the comparison — again accounting for emissions from production in Australia to combustion of the gas delivered to end-use customers in California — shows that emissions from BHP's proposed LNG project are equivalent to 0.30 to 0.34 percent of total U.S. emissions (using EIA data for 2004)."[49] All these numbers could be higher because the full range of increased emissions ran from 35 to 53 percent.[50]

The study of the Cabrillo port, which planned on receiving LNG supplies from Australia, was based on a trade route of 9,100 miles, or 7,908 nautical miles, one way.[51] An LNG shipment from Qatar to the East Coast would be roughly 14,200 miles, one way.[52] The longer journey would increase emissions even more.

In short, using LNG will not meet New York's second Objective.

Objective 3 – Stabilize Energy Costs and Improve Economic Competitiveness

The Draft Plan's third Objective is "Stabilize Energy Costs and Improve Economic Competitiveness: Address affordability concerns of residents and businesses caused by rising energy bills, and improve the State's economic competitiveness."[53]

As noted in the above discussion of Objective 1, LNG could not only have no effect on natural gas prices (by terminals receiving minimal utilization), LNG could actually lead to an increase in energy costs for New Yorkers. If LNG replaces domestic supplies of natural gas and New York becomes dependent on such imports, citizens will be subject to the higher average global prices for natural gas. Further, to use the Draft Plan's term, New Yorkers will "export" their dollars overseas, as well as their own jobs. This is most troubling if an LNG dependency slows investments in energy conservation, efficiency, and renewable technologies and jobs.

New York must consider two of the most plausible outcomes. First, the terminals could largely sit empty, serving as a "market of last resort" for multi-national oil corporations. The marine environment will be industrialized for the business models of companies who are not contributing to any public benefit for New Yorkers. Second, New Yorkers could see their energy prices rise to attract additional LNG cargoes. Two LNG terminals that commenced

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[48] Richard Heede, *LNG Supply Chain Greenhouse Gas Emissions for the Cabrillo Deepwater Port: Natural Gas from Australia to California*, Climate Mitigation Services, May 7, 2006, p. 7.
[49] Richard Heede, *LNG Supply Chain Greenhouse Gas Emissions for the Cabrillo Deepwater Port: Natural Gas from Australia to California*, Climate Mitigation Services, May 7, 2006, p. 19.
[50] Richard Heede, *LNG Supply Chain Greenhouse Gas Emissions for the Cabrillo Deepwater Port: Natural Gas from Australia to California*, Climate Mitigation Services, May 7, 2006, p. 20.
[51] Richard Heede, *LNG Supply Chain Greenhouse Gas Emissions for the Cabrillo Deepwater Port: Natural Gas from Australia to California*, Climate Mitigation Services, May 7, 2006, p. 14.
[52] *Starting On Empty*, World Gas Intelligence, Energy Intelligence Group, Inc., Mar. 26, 2008, at http://www.energyintel.com/DocumentDetail.asp?document_id=226738 (last visited Aug. 6, 2008).
[53] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 2.

operations last year, Sabine Pass and Freeport, demonstrate these outcomes. After finishing construction and opening their terminals, both immediately filed applications to export their LNG imports. The terminals would buy LNG in the summer months when it is cheaper and then sell that LNG to countries like China, Spain, Japan, and India[54] in the winter when prices are higher.[55] Thus, in these cases, the "market of last resort" is not even the end destination but rather a storing ground until higher prices prevail in other countries. The terminals also noted that they would continue this business model until "U.S. market prices…***rise*** to a point where domestic sale of the LNG held in storage was economic."[56] After receiving their permits and constructing their terminals, the LNG companies then admit that they will not lower U.S. citizens' natural gas prices, but rather will only sell if Americans are willing to pay more.

Economists have also noted that if the U.S. wants more LNG, it will come at a cost. "Two economists for the U.S. Federal Reserve Bank of Dallas predict that, as LNG imports to the United States increase, gas prices in the U.S. market will trend towards the higher prices seen in the global LNG market…. [T]he economists wrote that '[o]nce LNG imports become the marginal source of U.S. supply, much higher international natural gas prices should prevail.'"[57] As analysts with Barclays Capital reportedly found, "if the United States becomes dependent on LNG to meet natural gas demand increases, tightness in the global liquefaction market and strong demand in Japan, South Korea, and Spain could trigger 'substantial price spikes' for natural gas in the U.S. market."[58]

As also noted in the discussions of Objective 1, one must consider the inherent volatility in LNG pricing, since so much of it comes from unstable regions. "So those who fear damage to [the environment from LNG terminal siting], or adding another terrorist target near New York, should add to their worries the possibility that we are carving out an energy future even more reliant on imports, where power for our homes is just as volatile in price as the fuel for our cars."[59]

Then there are the hidden costs. Added to the going rate for global LNG, more costs will be incurred with new LNG terminals. First, there are potential expensive retrofit costs for existing natural gas electricity plants. Operators of gas-fired power plants in New England raised concerns that regasified LNG could harm their equipment, affect the reliability of their plants

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[54] Application for Blanket Authorization to Export Liquefied Natural Gas on a Short-Term Basis, In the Matter of Freeport LNG Development, Docket No. 08-70-LNG (Department of Energy, Office of Fossil Energy), p. 1.
[55] Edward McAllister, *Freeport LNG seeks partners for re-export plan*, May 14, 2009, Reuters, at http://www.reuters.com/article/rbssEnergyNews/idUSN1453570620090514 (last visited July 21, 2009).
[56] Application for Blanket Authorization to Export Imported Liquefied Natural Gas, In the Matter of Cheniere Marketing, Inc., Docket No. 08-77-LNG (Department of Energy, Office of Fossil Energy), p. 5 (emphasis added).
[57] *Economists Predict Higher Natural Gas Prices with Increased LNG Imports*, LNGlawblog.com, May 1, 2008, at http://www.lnglawblog.com/BlogEntry.aspx?_entry=32870640-35c8-4b2a-becc-640da38cbcf7 (last visited Aug. 19, 2008).
[58] Analysts: Tight Global Liquefaction Market Could Result in Price Spikes for U.S. Natural Gas, LNG Law Blog, July 10, 2008, at http://www.lnglawblog.com/BlogEntry.aspx?_entry=d14d0ed2-8ca3-42f7-b230-6060874ce014 (last visited Aug. 6, 2008).
[59] Marianne Lavelle, *Feds Weigh Long Island Sound LNG Terminal*, US News and World Report, Mar. 17, 2008, at http://www.usnews.com/blogs/beyond-the-barrel/2008/3/17/feds-weigh-long-island-sound-lng-terminal.html#Comments (last visited Aug. 6, 2008).

and customer reliability, and force them to make expensive modifications.[60] This is because "foreign gas introduced into the nation's transportation system is often different from domestic supply in its heat content and physical composition. Those variables, according to electric power generation companies, could potentially cause disruptions for equipment that is calibrated to precise specifications."[61] All of these costs paid by power plant operators will be passed onto the consumer.

Second, the costs of the LNG terminals themselves must also be passed on to consumers. These costs are skyrocketing with construction costs for regasification terminals increasing "by more than 50 percent over the past 5 years."[62] Tom Cordano, president of Exxon's LNG Market Development unit, went to an LNG summit and reportedly said that a "sharp surge in costs to develop liquefied natural gas projects risks halting a growth boom in the industry that has been driven by soaring demand."[63] "'There is a cloud hanging over this very optimistic picture for the LNG business and it's the cloud of project cost escalation,' Cordano told an LNG summit in Rome. 'This is a very significant concern. It has the potential to really derail the great growth that we see coming along in our business.'"[64] Whatever projects do move forward will pass on these escalating expenses.

Since many countries that import LNG are closer to exporting countries, the U.S. also has to cover increased shipping costs. Just this month, it was announced that "GDF Suez SA (GSZ.FR) is seeking to divert liquefied natural gas, or LNG, cargoes from its new Yemen LNG plant to India and away from the U.S., where demand has slowed."[65] In addition to lower U.S. natural gas prices, "[f]rom an economic perspective, to go from Yemen to India, there's probably about $1 per million BTU (British thermal unit) ballpark in savings on transport cost alone."[66]

Then there are the bills that all taxpayers have to pay, even if they do not ultimately consume the LNG. Coast Guard protection of LNG tankers can run in the tens of thousands of dollars per ship.[67] In a report for Congress, the Congressional Research Service projected security costs at

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[60] Rob Linke, *Natural gas worry triggers U.S. hearing*, Telegraph-Journal, June 17, 2008, at http://nbbusinessjournal.canadaeast.com/journal/article/328178 (last visited Aug. 6, 2008).
[61] Katie Teller, *LNG Lowdown: New York rejects Broadwater; British Columbia may hold advantage over Oregon*, Power & Natural Gas – Operations and Strategy, April 16, 2008, at http://www.snl.com:80/InteractiveX/article.aspx?CDID=A-7636216-11619&KPLT=2 (last visited Aug. 6, 2008)..
[62] Annual Energy Outlook 2008, Energy Information Administration, DOE/EIA-0383(2008), June 2008, p. 46.
[63] Deepa Babington, Exxon says rising costs risk derailing LNG boom, Reuters UK, Dec. 4, 2007, at http://uk.reuters.com/article/oilRpt/idUKL0414043020071204 (last visited Aug. 6, 2008).
[64] Deepa Babington, Exxon says rising costs risk derailing LNG boom, Reuters UK, Dec. 4, 2007, at http://uk.reuters.com/article/oilRpt/idUKL0414043020071204 (last visited Aug. 6, 2008).
[65] Oliver Klaus, *GDF Suez Seeks Yemen LNG Cargo Diversion Amid Slow US Demand*, Zawya Dow Jones, Wall Street Journal, Oct. 1, 2009, at http://online.wsj.com/article_email/BT-CO-20091001-702721-kIyVDAtMEM5TzAtMTIwMDEwWj.html (last visited Oct. 1, 2009).
[66] Oliver Klaus, *GDF Suez Seeks Yemen LNG Cargo Diversion Amid Slow US Demand*, Zawya Dow Jones, Wall Street Journal, Oct. 1, 2009, at http://online.wsj.com/article_email/BT-CO-20091001-702721-kIyVDAtMEM5TzAtMTIwMDEwWj.html (last visited Oct. 1, 2009).
[67] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-17.

$25,000 per shipment.[68] Security costs for a terminal in Everett, MA, near Boston, run at $80,000 per shipment, excluding costs covered by the terminal owner.[69] "Coast Guard staff acknowledge that resources dedicated to securing maritime LNG might be otherwise deployed for boating safety, search and rescue, drug interdiction, or other security missions."[70] Unfortunately, those resources currently dedicated to LNG do not even provide adequate security. In 2007, the Government Accountability Office found that "units of the Coast Guard…report insufficient resources to meet its own self imposed security standards, such as escorting ships carrying liquefied natural gas."[71] Thus, taxpayers are paying high security costs to under-enforce the necessary security measures at existing terminals.

Objective 4 – Reduce Public Health and Environmental Risks

The Draft Plan's fourth Objective is "Reduce Public Health and Environmental Risks: Reduce health and environmental risks associated with the production and use of energy across all sectors."[72] This is another Objective that directly reflects a provision from Executive Order 2: "the burning of fossil fuels is a major contributor to global climate change, which poses a serious threat to the environment and the public health in New York State"[73] As referred to above, reliance on LNG will significantly contribute to climate change, thus threatening the environment and public health in New York.

In addition to greenhouse gases, the proposed LNG terminals will have other adverse impacts on the environment and public health. One of the most immediate and direct harms comes from offshore LNG terminals and their destruction of seafloor habitats. On-site LNG terminal construction and pipeline installation smother seafloor (benthic) habitat, alter the seafloor substrate, and cause re-suspension of sediments. Impacts to benthic and planktonic (water column) habitats can interfere with animal migration patterns and destroy marine life that serves as the base of the food chain. During construction and operations, LNG terminals and tankers degrade water and air quality and emit noise, light, and thermal pollution, all of which affect marine life. Normal operations result in massive amounts of sealife entrained in water used for regasification processes, ballast water removal, and tanker engine cooling. Some of this water is discharged onsite along with added biocides and other contaminants. The elevated temperature of the discharged water creates thermal pollution, as do the hot pipelines and flexible pipe risers that connect to LNG tankers and terminals. Also, LNG facilities increase the risk and occurrence

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[68] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-17.
[69] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-17.
[70] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-17.
[71] Government Accountability Office, Report to Congressional Requesters, Maritime Security, *Federal Efforts Needed to Address Challenges in Preventing and Responding to Terrorist Attacks on Energy Commodity Tankers*, GAO-08-141, Dec. 2007, p. 2.
[72] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 2.
[73] Executive Order No. 2, Establishing a State Energy Planning Board and Authorizing the Creation and Implementation of a State Energy Plan, State of New York, Apr. 9, 2008.

of invasive species, harmful algal blooms, and low dissolved oxygen and anoxia conditions. Since all the LNG facilities are being proposed in prime fishing grounds, these harms will severely impact both commercial and recreational fisheries.[74] Increased traffic from LNG tankers also elevates the risk of vessel strikes to marine mammals and turtles, many of which are threatened or endangered species. Natural hazards and human fallibility also increase the environmental risks of LNG facilities and tankers.

Beyond the continuous harms that result from these LNG terminals, tankers, and operations, natural hazards increase the risks to people and the marine environment. Storms are common in the ocean waters off the South Shore of Long Island, resulting in high winds and waves and storm surges. In August of 1893, a hurricane completely wiped out and destroyed Hog Island, a built-up one-mile barrier beach that was just south of the Rockaways on the far western end of Long Island.[75] Nor'easters have caused many blizzards, freezing rains, and damaging hurricane-force winds and high waves and surf. Indeed, the Perfect Storm, also known as the Halloween Storm, in 1991 was a nor'easter.[76] These intense storms can occur anytime of the year, roughly 10 times a year in the waters off New York.[77]

LNG facilities and tankers also are at risk from human error. Submerged pipelines have been damaged or disrupted by anchoring and trawling despite safety zones and restrictions.[78] Human errors and equipment failures have resulted in multiple spills, collisions, and fires at existing offshore oil and gas facilities.[79] In February of 2008, an LNG tanker's power system shut down due to a computer glitch, leaving the tanker adrift 35 miles off Cape Cod, Massachusetts in stormy seas until rescue vessels arrived.[80]

Placing terminals in between traffic lanes to the busiest port on the East Coast of the U.S. only increases the potential for collisions, as LNG tankers weave in and out of traffic lanes to access terminals, disrupting existing traffic patterns. ASIG admits in their application that the LNG tankers frequenting their proposed port could "more than double (128 percent) the ship traffic on inbound route 3 and add 28 percent to outbound route 2."[81] Thousands of ships pass through the

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[74] Letter from James Lovgren, FV VIKING II, to Tom McCloy, New Jersey Department of Fish and Wildlife, Bureau of Marine Fisheries, Mar. 7, 2008, p. 2 (on file with author).
[75] A.. Naparstek, *Storm Tracker*, New York Magazine, Sept. 4, 2005, at http://nymag.com/nymetro/news/people/columns/intelligencer/12908/ (last visited July 30, 2008).
[76] Satellite Gallery the Perfect Storm Damage Summary October 1991, National Climatic Data Center, National Oceanic and Atmospheric Administration, Department of Commerce http://www.ncdc.noaa.gov/oa/satellite/satelliteseye/cyclones/pfctstorm91/pfctstdam.html (last visited August, 27, 2008).
[77] Nor'easters. Storm-E http://www3.cet.edu/weather2/h17.html (last visited August, 27, 2008).
[78] MMS Incident Statistics and Summaries 1996-2010, Minerals Management Services, US Department of Interior http://www.mms.gov/incidents/IncidentStatisticsSummaries.htm (last visited Aug. 2, 2008).
[79] MMS Incident Statistics and Summaries 1996-2010, Minerals Management Services, US Department of Interior http://www.mms.gov/incidents/IncidentStatisticsSummaries.htm (last visited Aug. 2, 2008).
[80] *Power Restored to Disabled LNG Tanker*, Boston Globe, Feb. 13, 2008, at http://www.boston.com/news/local/massachusetts/articles/2008/02/13/power_restored_to_disabled_lng_tanker/ (last visited August 4, 2008).
[81] Safe Harbor Energy Project Deepwater Port License Application Vol. Two, Exhibit N, Atlantic Sea Island Group, Aug. 2007, p. N-7.

shipping lanes to and from the NJ/NY port every year, including oil tankers, chemical tankers, container carriers, car carriers, general cargo carriers, and cruiselines.[82]

It must be noted that importing LNG does not prevent the inherent environmental harms that natural gas extraction creates. The local and global environmental consequences occur wherever the fossil fuel is produced. Canadian Superior Energy, one of the 50% partners in Excalibur who proposes Liberty Natural Gas, is actively drilling in offshore gas fields in the waters off Trinidad and Tobago.[83] If New York obtains LNG from Liberty, it would be indirectly subsidizing offshore drilling in Trinidad and Tobago, a country with weak environmental standards and polluted beaches from offshore drilling.[84] Gazprom, who Exxon is soliciting as a source for the BlueOcean Energy proposal, is looking to supply the U.S. with offshore drilling in the Arctic's Barents Sea and off Sakhalin Island,[85] home to the endangered Western Gray Whale.[86]

Further, LNG operations add additional harms and threats beyond those of the natural gas industry. There are impacts from the liquefaction, transport, and re-gasification, as already discussed. LNG also represents a significant concentration of energy, as natural gas is reduced 620 times its original size to fit large volumes of energy into a smaller space.[87] As one LNG company chief executive stated an LNG "pool fire is like a nuclear meltdown."[88]

Objective 5 – Improve Energy Independence

The final Objective is "Improve Energy Independence: Improve the State's energy independence and diversity by developing in-state supplies of clean energy."[89] Indeed, LNG by definition will not support or improve energy independence. The three proposed LNG terminals in the Atlantic Ocean serve no purpose other than to import foreign natural gas. With the U.S. essentially energy independent for natural gas, producing 84% of its demand, increasing foreign natural gas imports will actually decrease energy independence for this fuel.[90] The EIA estimates that this energy independence will increase from 84% to 97% by 2030.[91] Thus, the status quo will result

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[82] Safe Harbor Energy Project Deepwater Port License Application Vol. Two, Exhibit N, Atlantic Sea Island Group, Aug. 2007, p. N-66.
[83] Dan Healing, *Canadian Superior surges on Trinidad natural gas find*, Calgary Herald, Aug. 14, 2008, at http://www.canada.com/calgaryherald/news/calgarybusiness/story.html?id=f6c91223-1634-4c3b-87ad-8bc26b6c736f (last visited Aug. 14, 2008).
[84] Rajendra Ramlogan, *Meeting the Challenges of Environmental Imperatives: The Hydrocarbon Sector in Trinidad and Tobago*, 23 Energy L. J. 127, 130-32 (2002).
[85] *Gazprom Seeks Stronger Presence in North American LNG Market*, BBC Monitoring via Comtex, Sept. 30, 2009, at http://www.downstreamtoday.com/news/article.aspx?a_id=18438&AspxAutoDetectCookieSupport=1 (last visited Oct. 1, 2009).
[86] Press Release, *Oil and Gas Consortium Will Suspend Seismic Activities to Protect Gray Whales*, Pacific Environment, WWF-Russia, WWF-International, Apr. 24, 2009.
[87] Amory Lovins and L. Hunter Lovins, Brittle Power (Jack Howell ed., Brick House Publishing Co. 1982) (1982), p. 87.
[88] Ron Morris, *Lineup for LNG project adds a competitor*, The Oregonian, Oct. 13, 2008, at http://www.oregonlive.com/business/index.ssf/2008/10/lineup_for_lng_project_adds_a.html (last visited Oct. 6, 2009).
[89] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. 2.
[90] In 2007, the U.S. consumed 23.05 tcf of natural gas and produced 19.30 tcf. Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), Mar. 2009, p. 92. 19.30/23.05 x 100 = 84%.
[91] Annual Energy Outlook 2009, Energy Information Administration, DOE/EIA-0383(2009), March 2009, p. 42.

in greater natural gas energy independence for New York, yet if New York supported LNG it would undermine this important Objective.

The Draft Plan explains some of the reasons why energy independence is important. The Draft Plan specifically notes the concern that LNG could come "from unstable international sources."[92] The Middle East and Russia together have over two thirds of the world's proven reserves.[93] While the United States is in the top ten of proven natural gas reserves, the other nine are Russia, Iran, Qatar, Saudi Arabia, United Arab Emirates, Nigeria, Algeria, Venezuela, and Iraq.[94]

The Draft Plan also emphasizes the importance of working to "reduce the amount of dollars 'exported' out of the State to pay for energy resources."[95] Why would New York sacrifice its jobs and marine environment to help create jobs in places like Russia and Libya? Many New York officials were outraged when Libyan leader Muammar Gaddafi pitched a tent in Bedford, New York, while attending a United Nations General Assembly meeting in late September. Yet, Canadian Superior Energy, the parent company looking to supply the Liberty project, is working with the Libyan and Tunisian governments to drill for oil and gas off the African coast.[96] If Gaddafi's tent is not welcome in New York for a night, certainly exporting New Yorker's dollars and jobs to Libya should receive equal and stronger objection.

Conclusion

The Draft Plan sets out five clear and important Objectives that are to guide New York State. New LNG terminals in the region would violate every one of these Objectives. History demonstrates that nearly all LNG terminals in the U.S. provide no reliability in terms of supplies, instead allowing energy companies to gain access to a "market of last resort." In the limited situation where an LNG terminal does provide reliable supplies it does so at high prices and at the cost of investments in domestic infrastructure, reducing reliability over the long term to more affordable, domestic energy. LNG imports would also negate the limited benefits that domestic natural gas has over coal in terms of greenhouse gases, substantially contributing to climate change. As with reliability, history shows that LNG will not help New Yorkers with energy costs and could indeed raise prices over the long term. Exporting dollars and jobs overseas will also hurt New York's economic competitiveness. The proposed LNG terminals would create impacts to the public health and environmental risks, threatening the marine environment that so many have worked to improve. Finally, all of these problems will come at the cost of undermining energy independence for natural gas, creating a dependency on another foreign fossil fuel.

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[92] Electricity Assessment: Resources and Markets, New York Draft 2009 State Energy Plan, Aug. 2009, p. 15.
[93] 40.5% of the world's natural gas reserves are in the Middle East. 26.3% of the world's natural gas reserves are in the Russian Federation. BP Statistical Review of World Energy 2007, BP, p. 22.
[94] "Hard Truths," National Petroleum Council, p. 133, Figure 2-45 (July 2007).
[95] New York Draft 2009 State Energy Plan, State Energy Planning Board, State of New York, Aug. 2009, p. xii.
[96] Press Release, *Canadian Superior Kicks Off Its "Oasis" Project by Signing Oil & Gas Exploration and Production Agreements for Large Oil and Gas Concession, Offshore Tunisia and Libya*, news release transmitted by Marketwire, for Canadian Superior Energy, Sept. 3, 2008, at http://cnrp.ccnmatthews.com/client/canadian_superior_energy/release.jsp?actionFor=895519 (last visited Oct. 6, 2009).

When Governor Paterson rejected Broadwater and set out his vision for a State Energy Plan, he said: "Now if we didn't have any other alternative than to use liquefied gas, perhaps we would have made a different decision. But it would have been a false choice, because it would be shame on us."[97] LNG remains a false choice. There are better alternatives, including maximizing conservation, efficiency, and renewable goals. In Governor Paterson's own words it would be shame on Governor Paterson and shame on the State Energy Planning Board if the final State Energy Plan allows for LNG terminals in the New York region. The final State Energy Plan must set out a policy where New York will actively oppose any proposal for any LNG terminal in the region intending to import foreign natural gas into the New York market.

Sincerely,

Cindy Zipf	David Byer, Esq.	Tim Dillingham
Executive Director	Water Policy Attorney	Executive Director
Clean Ocean Action	Clean Ocean Action	American Littoral Society

[97] Speech by New York Governor David Paterson announcing denial of permit for the Broadwater LNG proposal, Sunken Meadow State Park, Apr. 10, 2008, "Paterson dumps Broadwater," YouTube, at http://www.youtube.com/watch?v=iHbtNE8sar8 (last visited Sept. 2, 2009).