

COMMONWEALTH OF MASSACHUSETTS  
Energy Facilities Siting Board

\_\_\_\_\_) )  
The University of Massachusetts ) )  
at Amherst ) )  
Advisory Ruling ) )  
\_\_\_\_\_)

August 20, 2012

ADVISORY RULING  
ADOPTED BY ACTION BY CONSENT

The Energy Facilities Siting Board (“Siting Board”) issues this Advisory Ruling using the “Action by Consent” process described and authorized by 980 CMR § 2.07, because the Siting Board finds that expeditious action is necessary. See 980 CMR § 2.07(1).

By letter dated April 26, 2012, the consulting firm of Woodard & Curran, Inc. (“Woodard”), acting on behalf of its client the University of Massachusetts at Amherst (“UMASS”), petitioned the Energy Facilities Siting Board (“Siting Board” or “Board”) for an advisory ruling pursuant to the provisions of 980 CMR 2.08 and G.L. c. 30A, § 8 (the “Request”), concerning the Board’s jurisdiction over the siting and construction of a temporary liquefied natural gas (LNG) storage facility (the “Project”) to be located at UMASS’s Campus Heating Plant (“CHP”).<sup>1</sup> UMASS personnel, a Woodard representative (UMASS and Woodard are jointly referred to as the “Petitioners”) and other consultants met with Siting Board staff on May 18, 2012, to answer questions and to more fully explain the Project. On June 25, 2012, the Siting Board, through an Action by Consent, voted unanimously to issue an advisory ruling as requested.

I. DESCRIPTION OF THE PROPOSED PROJECT

A. Need for the Project

The CHP facility is a cogeneration system designed to produce steam for central heating and 16.5 MW of electricity for campus use. The CHP facility is a flexible dual-fuel unit that can burn either natural gas, ultra-low-sulfur distillate (“ULSD”), or combinations of both at the same

<sup>1</sup> UMASS uses the term Campus Heating Plant (“CHP”) to refer to what is a combined heat and power plant.

time. The plant receives interruptible natural gas from Berkshire Gas Company via its distribution system. Given the limited capacity of the Berkshire Gas system, gas deliveries to the CHP unit begin to be curtailed when temperatures go below 34°F and are completely cut off when temperatures drop to 14°F. During gas curtailments, UMASS must switch to ULSD, which is much more costly and requires operators to shut off the exclusively gas-fired duct-firing unit attached to the main turbine. This action reduces both the electrical output and the supply of steam for campus heating. The frequent winter gas supply interruptions reduce the efficiency of the CHP facility and increase its operating costs. For these reasons, UMASS proposes to test the viability and economics of using LNG as a backup fuel for its CHP unit over the next two winters (2012-13 and 2013-14). UMASS estimates that LNG use would save \$1.5 million to \$2 million per year in fuel costs. UMASS indicates that some use of ULSD would still be necessary during the winter, although it hopes to reduce the volume of ULSD as much as possible.

B. Project Alternatives

UMASS is currently considering two alternatives for providing backup LNG supplies at its CHP plant. One alternative would involve placing two skid-mounted 15,000-gallon LNG storage tanks with a skid-mounted vaporization unit next to the plant (which would result in a total storage capacity of up to 30,000 gallons). The other alternative would involve dedicating parking spaces for two LNG tankers with average capacities ranging from 10,000 to 13,000 gallons (which would result in a total storage capacity of up to 26,000 gallons).<sup>2</sup> UMASS indicated that LNG would be trucked to the campus from the Distringas facility in Everett (or other possible suppliers), with deliveries of one to three tankers daily during the winter when natural gas service is interrupted. UMASS personnel indicated that they would make their selection between the two options based on cost.

Furthermore, UMASS stated that it would ideally like to request bids from contractors during July 2012. This short timetable creates the need for expeditious action that requires the Board to use the action by consent procedure.

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<sup>2</sup> UMASS represented that during the swap out of an empty LNG tank, an LNG delivery truck holding a third tank would also be on site for a brief period of time. The Board believes that, given the brief presence of the third tanker truck during tank swap outs, its transient capacity would not be regarded as "storage."

## II. LEGAL ISSUES: SITING BOARD JURISDICTION

The Board has jurisdiction over all “facilities” as that word is defined in G.L. c. 164, § 69G. Pursuant to this jurisdiction, the Board must approve a petition for construction of any facility, pursuant to G.L. c. 164, § 69J, before it may be built. For purposes of the present matter, the relevant type of facility is: “a unit, including associated buildings and structures, designed for or capable of the manufacture or storage of gas<sup>3</sup>, **except such units below a minimum threshold size as established by regulation.**” G.L. c. 164, § 69G (emphasis and footnote added). Pursuant to this express statutory authority, the Siting Board has adopted a regulation providing for exemptions of certain gas storage facilities from Board jurisdiction. 980 CMR 1.01(4)(e).

The regulation at 980 CMR 1.01(4)(e) establishes three exemptions from EFSB jurisdiction: subsection (e)(1) exempts gas storage facilities with a capacity of less than of 25,000 gallons; subsection (e)(2) exempts units that store gas “whose primary purpose is research, development, or demonstration of technology”; and subsection (e)(3) exempts landfills and sewage treatment plants. Prior to promulgation of these exemptions, the regulatory definition of “facilities” did not establish a minimum size exception as authorized by the Siting Board statute and, therefore, all natural gas storage facilities were subject to review without regard to size.

At the meeting with Board staff, UMASS personnel asserted that the exemption for units with less than 25,000 gallons in storage capacity, 980 CMR 1.01(4)(e)(1), might apply even if UMASS pursues the option of installing two 15,000 gallon tanks on skids. Specifically, UMASS offered to limit its total storage of LNG to less than 25,000 gallons, even though the capacity of the storage units would be greater than 25,000 gallons.

UMASS personnel also asked that the Board consider a second possible exemption: the one for research, development, or demonstration of technology set forth at 980 CMR 1.01(4)(e)(2). The UMASS representatives indicated that the CHP unit would be the first such combined heat and power unit in Massachusetts to use LNG to supplement natural gas obtained by pipeline. Also, the project would be in place for only two years, which is consistent with the

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<sup>3</sup> In this statute, “gas” is defined to include “natural gas, propane air, synthetic natural gas, and liquefied natural gas.” G.L. c. 164, § 69G.

idea of testing or demonstrating a new technology. If the new technology is successful and offers cost savings, then UMASS intends to consider constructing permanent LNG tanks.

### III. ANALYSIS

#### A. Advantages of Using Natural Gas

LNG applications appear to be of increasing market interest given that natural gas currently offers cost savings (relative to distillate fuel oil, diesel, gasoline, and propane), reduced emissions of greenhouse gases and other pollutants, and greater operational flexibility – all of which are illustrated in the UMASS proposal. Furthermore, greater use of LNG as a substitute for oil-based products would help support a number of energy and environmental policies of the Commonwealth, including reduced greenhouse gas emissions (Global Warming Solutions Act), increased use of combined heat and power (Green Communities Act’s adoption of an Alternative Portfolio Standard), and the Siting Board’s statutory objective of ensuring a reliable supply of energy, at least possible cost, with a minimum impact to the environment.

Currently, the CHP unit has two sources of fuel: natural gas provided by Berkshire Gas Company and ULSD, stored on site. With the addition of the proposed LNG storage facility, the CHP unit will have a third source of fuel, while fully retaining the existing ULSD storage capacity— its current backup fuel. Consequently, construction of the LNG storage facility will increase both the fuel diversity and reliability of the CHP unit.

Despite these benefits, however, the Board cannot advise the Petitioners that the Project would be non-jurisdictional unless it has a reason for doing so that meets its statutory and regulatory requirements. Consequently, we first examine the grounds asserted by UMASS.

#### B. The Regulatory Exemptions from EFSB Jurisdiction

##### 1. The Grounds for Exemptions Asserted by UMASS

The storage capacity of the Project would be either 26,000 gallons, if UMASS dedicates two parking spaces to LNG tanks hauled and stored on trailers,<sup>4</sup> or 30,000 gallons, if a skid-mounted LNG storage facility is constructed. In either case, the storage capacity would exceed

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<sup>4</sup> While LNG tanks hauled and stored on trailers vary in size, the Board has been informed that the storage capacity of these tanks do not to exceed 13,000 gallons each. Therefore, if two of the largest-sized tanks were parked together, they would have a combined storage capacity of 26,000 gallons.

25,000 gallons. Therefore, the Project would not qualify for the exemption for natural gas storage facilities that have fewer than 25,000 gallons in storage capacity. UMASS's willingness to limit its actual storage of LNG to 25,000 gallons does not affect the capacity of the Project with respect to the applicability of 980 CMR 1.01(4)(e).

Furthermore, the information provided to the Board by Woodard and UMASS does not convince the Board that the Project would qualify for the exemption for research, development, or demonstration of technology as its primary purpose. To the contrary, Woodard indicated that the use of LNG at end-use installations is not unusual in New England and that LNG technology is proven and safe. The key rationale for the Project is that it would reduce operating costs and produce environmental benefits.

2. 980 CMR 1.02(1) Exemption

Another option available to the Board that would preclude the need for jurisdictional review of the Project, pursuant to 980 CMR 1.02(1), was not identified by the Petitioners. 980 CMR 1.02(1) provides that: "Where good cause appears, not contrary to statute, the Board and any Presiding Officer may permit deviation from any rules contained in 980 CMR." Consequently, the Board may issue a ruling in which it allows UMASS to deviate from the 25,000-gallon threshold so long as it makes two findings. The first finding is that there is "good cause" to permit the deviation. The second finding is that granting the deviation would not be contrary to the relevant statute, which, in this case, would be G.L. c. 164, § 69G.

a. Petitioners Have Shown Good Cause to Permit Deviation.

The "good cause shown" that would allow a deviation from the 25,000-gallon jurisdictional threshold for a gas storage facility includes the following:

- Regulatory intent as expressed by the Board when it established the minimum size exemption was to retain jurisdiction over utility-scale natural gas facilities but to exempt non-utility storage facilities. Rulemaking to Amend 980 CMR 1.01(4)(e), at 3 (EFSB 2011).

- The Project's gas storage capacity would be close to the jurisdictional threshold, as established by EFSB regulation, and would be a non-utility facility.
- The Project would be temporary in nature.
- The Project would further recently established environmental and energy efficiency policies of the Commonwealth.
- The Project would comply with all federal, state and local safety requirements and obtain all necessary permits and licenses.

The Project would be beneficial to UMASS, its students and faculty, and the taxpayers of the Commonwealth. The Board finds that all of these factors, taken together, constitute "good cause" to permit UMASS to deviate from the requirement that proposed facilities with a storage capacity in excess of 25,000 gallons and not otherwise exempted be submitted to the Board for approval pursuant to G.L. c. 164, § 69J.

b. Granting The Deviation Would Not Be Contrary to Statute

As noted above, the Siting Board has statutory authority to exempt from Board approval facilities "below a minimum size threshold as established by regulation." G.L. c. 164, §69 G. The Board has done so, setting that threshold at 25,000 gallons, in pertinent part. 980 CMR 1.01(4)(e)(1).

Several considerations cause us to conclude that waiving the 25,000 gallon threshold in this case would not be contrary to statute:

- The legislature delegated to the Board the authority to set a minimum size exemption.
- As noted, the Board's intent when it established the minimum size exemption was to exempt non-utility-scale storage facilities.
- The proposed facility is neither utility scale nor significantly larger than the 25,000 gallon threshold.
- The Board has explicit authority to waive its regulations.

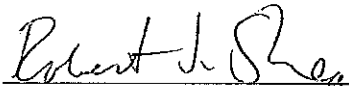
IV. ADVISORY RULING

Accordingly, after due consideration of the facts and arguments presented by UMASS, as well as our own analysis, the Siting Board hereby advises that, pursuant to 980 CMR 1.02(1), there is good cause to deviate from the 25,000-gallon threshold in 980 CMR 1.01(4)(e) in this

matter and that such a deviation would not be contrary to statute. Therefore, the Siting Board further advises UMASS that it may construct a temporary (through the end of the 2013/2014 heating season) LNG storage facility at its CHP location, of a size not to exceed 30,000 gallons in total storage capacity without seeking approval from the Siting Board.

Two caveats are in order. First, we note that, as set forth in 980 CMR 2.08, “[n]o advisory ruling shall bind or otherwise estop the Board in any pending or future matter.” If an entity seeks a binding decision of the jurisdictional issue raised by this proceeding, the entity may either file a petition to construct and raise the issue in the context of that proceeding or may seek a determination of Siting Board jurisdiction pursuant to 980 CMR 2.09.

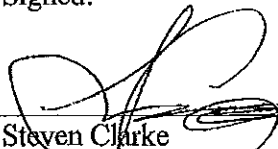
Second, in rendering the requested Advisory Ruling, the Siting Board assumes, but does not expressly find, that all material facts have been stated and that the facts are as represented by Woodard and UMASS in the Request and in the meeting with Siting Board staff on May 18, 2012. Should the material facts presented by Woodard or UMASS change or be inaccurate, this Advisory Ruling may not be applicable.



Robert J. Shea  
Presiding Officer

This Advisory Ruling adopted by Action by Consent may be executed in any number of counterparts, each of which shall be an original, but all of which constitute one agreement, and shall be dated and become effective when the copies bearing all of the signatures of the Siting Board members are received by the Acting Chair. 980 CMR § 2.06(2).

Signed:



Steven Clarke  
Acting Energy Facilities Siting Board Chair  
For Secretary, Executive Office of  
Energy and Environmental Affairs

8/11/12  
Date

Ann G. Berwick  
Chair  
Department of Public Utilities

Date

Jolette A. Westbrook  
Commissioner  
Department of Public Utilities

Date

Mark Sylvia  
Commissioner, Department of Energy Resources

Date

Victoria Maguire, Designee  
For Secretary, Executive Office of Housing  
and Economic Development

Date

Nancy Kaplan, Designee  
For Commissioner, Department of Environmental Protection

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Penn Loh, Public Member

Date

Kevin Galligan, Public Member

Date



Signed:

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*8/20/12*

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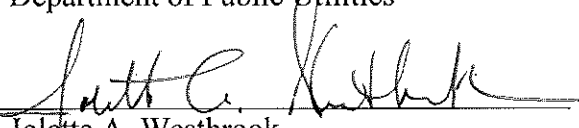
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Ann G. Berwick  
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Jolette A. Westbrook  
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Date

*August 10, 2012*

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Mark Sylvia  
Commissioner, Department of Energy Resources

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Advisory Ruling  
The University of Massachusetts at Amherst

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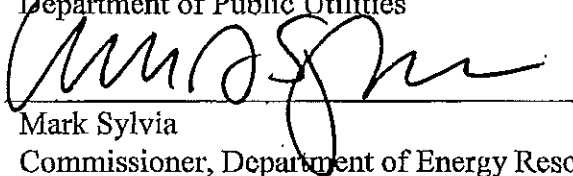
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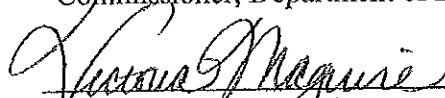
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Advisory Ruling  
The University of Massachusetts at Amherst

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Signed:

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Steven Clarke  
Acting Energy Facilities Siting Board Chair  
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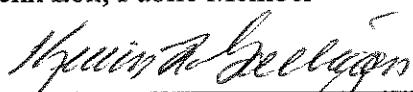
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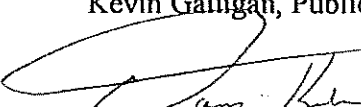
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Kevin Galligan, Public Member

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Dan Kuhs, Public Member

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Date

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