



*The Commonwealth of Massachusetts*  
*Executive Office of Energy and Environmental Affairs*  
*100 Cambridge Street, Suite 900*  
*Boston, MA 02114*

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

IAN A. BOWLES  
SECRETARY

Tel: (617) 626-1000  
Fax: (617) 626-1181  
<http://www.mass.gov/envir>

July 18, 2007

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Stony Brook Energy Center – Phase II  
PROJECT MUNICIPALITY : Ludlow  
PROJECT WATERSHED : Chicopee  
EOEA NUMBER : 13889  
PROJECT PROPONENT : Massachusetts Municipal Wholesale Electric Company  
(MMWEC)  
DATE NOTICED IN MONITOR : June 11, 2007

As Secretary of Energy and Environmental Affairs, I hereby determine that the Draft Environmental Impact Report (Draft EIR) submitted on this project **adequately and properly complies** with the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00).

Project Description

As described in the Draft EIR, the project involves the construction of a 280 megawatt (MW) (nominal) natural gas and #2 distillate-oil (ultra low sulfur) fired combined cycle energy facility that will supply electricity into the New England Power Pool (ISO) system. The Massachusetts Municipal Wholesale Electric Company (MMWEC) has identified a need among its 26 member municipal utilities for approximately 500 MW of new energy resources by 2012, including 300 MW of “baseload” capacity. The system will consist of a single General Electric Frame 7FB (or equivalent) Combustion Turbine/Generator with exhaust stack, a heat recovery stream generator as well as a separate steam turbine with an electric generator and the necessary ancillary equipment. The F-Class unit is the most recent gas turbine technology. The plant will be fueled with natural gas, obtained via an existing on site gas pipeline and compressed to approximately 500 psi. The MMWEC site consists of approximately 417 acres of industrially zoned property which is currently used for the MMWEC corporate offices and the existing Stony Brook Plant. Approximately 10 acres will be used for the footprint of the new facility and ancillary structures.



### Thresholds and Jurisdiction

The project is undergoing review and requires the preparation of a mandatory EIR pursuant to section 11.03 (7)(a)(2) of the MEPA regulations, because the project involves the expansion of an existing electric generating facility by 100 or more megawatts. This project is also subject to review pursuant to Sections 11.03 (1)(b)2 , 11.03 (2)(b)1 , 11.03 (4)(b)2 , and 11.03 (5)(b)4.a of the MEPA regulations, because the project will create 5 or more acres of impervious area, alter designated habitat, expansion in withdrawal of greater than 500,000 gallons per day (gpd) from a water supply system above the lesser of current system wide withdrawal volume, and expansion in discharge of industrial wastewater by more than 100,000 gpd. The project will also require numerous state permits and agency actions, including: Approval to Construct from the Energy Facilities Siting Board (EFSB); a Major Comprehensive Approval under 310 CMR 7:00 from the Department of Environmental Protection (MassDEP); a New Source Approval and a Sewer Connection/Extension Permit from MassDEP; a permit for tank of capacity greater than 10,000 gallons (527 CMR; 502 CMR 5) from the State Fire Marshall Office and an Order of Conditions from the Ludlow Conservation Commission (and hence a Superseding Order from MassDEP if the local Order were appealed). The project will also require several federal environmental permits including a Prevention of Significant Deterioration permit from the U.S. Environmental Protection Agency (US EPA) and Federal Aviation Administration (FAA) Approval for Stack and Construction Cranes.

Because the proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction is limited to those aspects of the project that are likely to directly or indirectly cause Damage to the Environment and that are within the subject matter of required or potentially required state permits or agency actions. Given the numerous permits and agency actions (and the broad scope of the EFSB and MassDEP permit reviews), MEPA subject matter jurisdiction exists over virtually all of the potential environmental impacts of the project.

### **Review of the DEIR**

The proposed project serves to provide a clean source of electrical generation in an area of Massachusetts where electric generating capacity is in short supply. The project, located adjacent to an existing 522-megawatt plant, will use many components of the existing site infrastructure to support the project, including existing pipelines for natural gas, fuel oil, water and wastewater discharge, as well as existing transmission facilities connected to the regional power grid. Since the initial review of the ENF, the proponent has incorporated an air-cooled condenser instead of a conventional evaporative cooling tower into the project design, which reduces the project's water use by approximately 90 percent.

The proponent proposes to minimize emissions by the use of natural gas as the project's primary fuel with ultra-low-sulfur distillate oil as a secondary fuel. The DEIR also describes that the proponent will further reduce emissions through the use of highly efficient combustion

technology and state-of-the-art emissions control technologies. I remind the proponent that the project must meet the standards for a Major Comprehensive Approval as required by MassDEP as well as demonstrate that the project will comply with a Prevention of Significant Deterioration permit from the US EPA. I also remind the proponent that because the project is adjacent to the Westover Metropolitan Airport that under provisions of Section 35B of MGL Chapter 90 "...no person shall erect or add to the height of any structure within a rectangular area lying fifteen hundred feet on either side of the extended center line of a runway...." Also, the actual height of the structures must not affect airspace under the same regulations.

## SCOPE

### General

The Final EIR should contain a copy of this Certificate and a copy of each comment received. The Final EIR may incorporate by reference those portions of the Draft EIR that do not require further analysis. At a minimum, the proponent should circulate the Final EIR to those parties submitting individual written comments on the Draft EIR, and to any state agency from which the proponent will seek permits. The proponent should also make a reasonable number of hard copies of the Final EIR available on a first come, first served basis.

### Response to Comments

The FEIR should respond to the comments received to the extent that the comments are within the subject matter of this scope. Each comment letter should be reprinted in the FEIR.

### Air Quality

As stated in the ENF Certificate, the project must meet the standards for a Major Comprehensive Approval as required by MassDEP as well as demonstrate that the project will comply with a Prevention of Significant Deterioration permit from the USEPA.

I also reiterate that since fossil fuel will be burned, the Electric Generating Unit will be subject to the Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule, 40 CFR 51, 72, 73, 74, 77, 78 and 96). The construction and any demolition activity must conform to current Air Pollution Control Regulations. The project must comply with the MassDEP's Bureau of Waste Prevention (BWP) Regulations 310 CMR 7.01, 7.09, and 7.10. In addition, the FEIR should include projections of annual carbon dioxide emissions. The Commonwealth of Massachusetts recently joined the Regional Greenhouse Gas Initiative (RGGI). Therefore, any power plants above nameplate capacity of 25 megawatts will be subject to RGGI carbon dioxide implementation mechanisms.

The DEIR states that natural gas will be the primary fuel of use for six months per year and that ultra low sulfur distillate fuel will be used for the balance of the year. I remind the proponent that during the plan application review, MassDEP will require a Best Available

Control Technology analysis to determine the allowable amounts for each fuel of use. The proponent should include the use of B20 at this time thereby avoiding the need to submit a modification to any MassDEP issued plan approval and a modification for any federally issued permit issued for this project.

The DEIR states that a 500 kW emergency diesel generator will be installed as part of the project. The proponent should include the air emissions from this emergency diesel generator in its air plan application annual emissions profile and ambient air quality impacts analysis. This emergency diesel generator is also subject to the provisions of 310 CMR 7.26 (42) that requires the submission of an environmental certification to the MassDEP. In addition, the DEIR states that only one small maintenance shop will be demolished. The proponent must submit Construction and Demolition notifications to MassDEP ten days prior to commencement of any construction or demolition.

### Aviation

The proposed project is adjacent to the Westover Metropolitan Airport near the centerline of Runway 5/23. Under provisions of Section 35B of MGL Chapter 90 "...no person shall erect or add to the height of any structure within a rectangular area lying fifteen hundred feet on either side of the extended center line of a runway...." Under these regulations the building of the structures cannot be within fifteen hundred feet of the runway. In addition, the height of the proposed building and structures may not reach the surfaces defined under Section 35B of MGL Chapter 90.

The proponent has consulted with Massachusetts Aeronautics Commission (MAC). In the Certificate for the DEIR the proponent was asked to submit a MAC Form E-10, Request for Airspace Review. The DEIR stated that MAC has determined there is no further action required under provisions of Section 35B of MGL Chapter 90. The FAA may have further comments after FAA's review. The FEIR should contain the results of the FAA review which may include obstruction lights and markings that must comply with FAA guidelines. The DEIR stated that the construction cranes will be lighted and marked per FAA requirements, and lowered to a height of 150 feet or less when not in use. The proponent has also committed to inform the Westover Metropolitan Airport of all relevant construction activities on a regular basis. The new stack will be the same height as 3 existing stacks. The proponent proposes to light and mark the new stack in the same manner as the existing stacks. Spacing from the Westover Metropolitan Airport runways complies with all statutory requirements

### Rare Species

I note that the project site is located within Priority Habitat and Estimated Habitat and therefore requires review through a direct filing with the Natural Heritage & Endangered Species Program (NHESP) for compliance with the Massachusetts Endangered Species Act (MESA, MGL c131A) and its implementing regulations (321 CMR 10.00). The Blue-spotted

Salamander (*Ambystoma laterale*) and the Climbing Fern (*Lygodium palmatum*), have been documented to occur on the project site or within close proximity. These species are state-listed and protected as "Special Concern" in accordance with MESA. I commend the proponent for working with the Natural Heritage & Endangered Species Program (NHESP) to minimize forest clearing. The proponent should attempt to avoid a "take" of the species. If a "take" cannot be avoided then the proponent must apply for a Conservation & Management Permit. I encourage the proponent to continue working closely with NHESP. The FEIR should discuss the status/results of this consultation and provide information about the specific measures by which impacts to this species will be avoided, minimized or mitigated.

### Wetlands

The proponent has submitted a Request for Determination of Applicability (RDA) with MassDEP with respect to the extent and boundaries of all jurisdictional resource areas at the site. The FEIR should provide results of discussions with MassDEP. The site appears to contain Bank (Inland) and Bordering Vegetated Wetlands. As part of the RDA the proponent has also asked whether the proposed work is subject to the Wetlands Protection Act. I note that the Ludlow Conservation Commission must issue a Determination of Applicability ruling on the above questions.

### Water

The proponent has modified the proposed project in the DEIR. The project now proposes to decrease water usage from 1.39 million gallons per day (gpd) to 122,000 gpd. In addition, the proponent also stated that the existing municipal water system main would be utilized without modification to accommodate this project. The on-site water main owned by the proponent will be extended 300 feet to the new facility. MassDEP has stated in their comment letter that no permit is required for this extension.

The proponent has modified the project by changing from a wet evaporative system to an air-cooled condenser system. In addition, the NOx emission controls were changed to a dry system. Use of water as the mechanism for heat exchange for the inlet air chiller evaporative cooling tower will require approximately 18,600 gallons per day. The estimated average daily water use over the year is projected to be 122,000 gpd. The DEIR stated that the Springfield Water & Sewer Commission has adequate capacity from its source and in its Water Management Act Registered Withdrawal Volume to meet the proposed increased use. However, no calculations or analysis were included in the DEIR. The FEIR should contain downstream capacity analysis from the Moody Street gravity system to the Indian Orchard Pumping. In addition, the FEIR should describe the stormwater generation impacts of the project. I note that the project will require a Town of Ludlow Stormwater Management Permit.

### Wastewater

Proposed wastewater volumes have changed from an estimated 103,200 gallons per day (gpd) of additional wastewater to be disposed in the municipal sewer system to 22,000 gpd. The FEIR should clarify this number as requested by the Town of Ludlow's comment letter. Wastewater will be pretreated as necessary prior to discharge to the Ludlow sewers/SWSC Bondi's Island Treatment plant. Demineralization wastewater, boiler blowdown, and wastewater passing through floor drains in chemical storage and treatment areas will be treated in a wastewater neutralization system. Wastewater passing through floor drains in other than chemical storage and treatment areas will pass through oil/water separators. I note that on January 12, 2007 the MassDEP adopted amendments to the sewer connection and extension regulations at 314 CMR 7.00 that include performance standards and general prohibitions for wastewater discharges. The proponent will need to obtain a BWP IW 38 permit for its industrial wastewater discharges. In addition, the Springfield Water & Sewer Commission may upgrade the Indian Orchard Pumping Station where the wastewater will be discharged. The proponent should confirm in the FEIR with the Springfield Water & Sewer Commission that the existing and future pump upgrades to the Indian Orchard Pump Station has adequate capacity to service the additional flow from the project.

### Mitigation

The FEIR should include a separate chapter on mitigation measures. It should develop additional transportation and parking demand management measures to reduce single passenger automobile trips to the project site and encourage ridesharing by employees to the site through incentives. I encourage the proponent to identify measures to increase transit usage to the project site when the retail project is constructed. This chapter on mitigation should include updated proposed Section 61 Findings for all state permits. The proposed Section 61 Findings should contain a clear commitment to mitigation, an estimate of the individual costs of the proposed mitigation, and the identification of the parties responsible for implementing the mitigation. A schedule for the implementation of mitigation should also be included.

In the DEIR, the proponent committed to the following mitigation measures:

#### *Air Quality*

- Use of clean-burning natural gas as primary fuel.
- Use of ultra low sulfur distillate (ULSD) oil as a secondary fuel.
- Use of advanced combustion and pollution control technologies including dry low-NO<sub>x</sub> combustor for gas firing, and SCR and oxidation catalysts that represent LAER and BACT.
- Acquisition of offsets at 1.26:1 for potential NO<sub>x</sub> and VOC emissions
- Acquisition of ozone season NO<sub>x</sub> allowances in compliance with Federal CAIR Program.
- Acquisition of SO<sub>2</sub> allowances in compliance with Federal Acid Rain program.
- Acquisition of CO<sub>2</sub> allowances in compliance with the RGGI program.
- Construction contractors will be required to: (1) wet or otherwise control dust resulting

from demolition activities; (2) wet and/or cover open soil areas as necessary to prevent generation of dust; (3) implement final grading, seeding and/or paving of exposed areas as quickly as practical; (4) cover all transported material with a potential to generate dust; and (5) in the event of spills, to remove any spilled material as quickly as possible.

- Construction contractors will be prohibited from using construction vehicles and other powered equipment that do not meet applicable regulatory emissions requirements, and from unnecessary idling of vehicles or other powered equipment. Contractors will be required to remove from service any malfunctioning vehicles or equipment and to implement a program to minimize the use and evaporation of volatile chemicals.

#### *Aviation*

- Construction cranes will be lighted and marked per FAA requirements, and lowered to a height of 150 feet or less when not in use. The proponent will inform the Westover Metropolitan Airport of all relevant construction activities on a regular basis.
- The new stack will be the same height as 3 existing stacks. The proponent proposes to light and mark the new stack in the same manner as the existing stacks. Spacing from the Westover Metropolitan Airport runways complies with all statutory requirements.

#### *Rare Species*

- During construction, impenetrable erosion control barriers will be installed and maintained around the perimeter of the construction site to insure that migrating salamanders do not cross onto the construction site.
- Approximately 2.5 acres of open land on the Stony Brook site will be converted to mixed deciduous forest. MMWEC will avoid impacts to wetlands habitat by construction of a large retention basin designed for the 100-year storm event (see also wetlands mitigation).

#### *Wetland*

- The limits of construction work do need to extend into buffer zones in some areas, but will not encroach on any actual wetland boundaries. Comprehensive erosion and sediment controls will be used and maintained along all boundaries of work.
- Drainage and storm water runoff from the northern portion of the site will be managed on-site by construction of a "wet" storm water retention basin designed to detain the runoff generated by a 24-hour, 100-year storm. Post-construction runoff will be limited to no more than the pre-construction rate. An oil-water separator will be provided at the outlets of the retention basin to control water quality. The retention basin outlet will be located to retain the "first flush" of sediment that may accumulate within the basin and this sediment will be removed periodically to maintain basin design depth. The existing Site Storm Water Pollution Prevention Plans will be updated for the Project to ensure adequate control and containment of operational activities with potential for causing stormwater impacts.

*Water Supply*

- Significant water conservation measures are incorporated in the Project design. Such measures include the use of an air-cooled steam condenser, dry low-NOx combustion as opposed to steam or water injection for the control of NOx emissions during gas-fired operation, implementation of increased cooling cycles, and the recycling of storm water from the oil storage tank containment dike and unloading areas.

*Wastewater*

- Process wastewater will be pretreated as necessary prior to discharge to the Ludlow sewers/SWSC Bondi's Island Treatment plant. Demineralization wastewater, boiler blowdown, and wastewater passing through floor drains in chemical storage and treatment areas will be treated in a wastewater neutralization system. Wastewater passing through floor drains in other than chemical storage and treatment areas will pass through oil/water separators.

*Hazardous Waste*

- The excavation contractor will be required to approximately monitor and respond to the unexpected discovery of any evidence of subsurface contamination. All waste material generated will be appropriately contained by the construction contractors and disposed off-site in accordance with all applicable regulations.
- All hazardous wastes generated will be stored and disposed of in accordance with applicable federal and state regulations. The proponent will recycle waste oil for heat recovery in two on-site waste oil furnaces under a DEP Class A recycling permit currently held. The proponent will recycle other wastes such as paper and cardboard to the maximum extent practicable.

*Noise*

- A low noise air-cooled condenser and a low-noise inlet air chiller cooling tower will be specified. The combustion turbine air intake will be equipped with duct silencers. Reduced noise transformers will be specified. The combustion turbines, steam turbines, and generators will be enclosed with vendor supplied equipment to reduce equipment noise within the power generation building. Duct silencers will be required to mitigate sound produced by compartment and enclosure ventilation fans. The combustion turbine, HRSG, steam turbine, generators, boiler feed pumps, cooling water pumps, and other auxiliary equipment will be housed within the power generation building. Building interior surfaces will be sound absorptive, and the average sound level in the building will be controlled to 85 dBA or less. In addition, all building ventilation equipment (louvers, and exhaust fans), and entryways will be carefully oriented, and/or acoustically treated to meet project acoustic design goals.
- Construction contractors will be required to comply with all regulatory requirements limiting noise from trucks and powered equipment. In addition, contractors will be required to maintain sound muffling devices in good repair through the construction period.



*Traffic*

- Construction shift schedules do not significantly overlap with peak traffic hours on local streets. MMWEC will monitor the construction traffic and potential impacts at Moody Street/Holyoke Street intersection and arrange for traffic control officers in coordination with the Ludlow Police Department if determined necessary.

*Visual*

- The facility stack will be the same height as 3 of the existing stacks (150'). The appearance of the Project structures will be consistent with structures in the surrounding area. Project structures will be painted a neutral color similar to the existing structures to minimize the visibility of the Project.

July 18, 2007

Date



Ian A. Bowles

Comments received:

- 06/27/07 Town of Hudson, Office of Light and Power Department
- 06/29/07 Peabody Municipal Light Plan
- 06/29/07 Templeton Municipal Light and Water Plant
- 07/02/07 Boylston Municipal Light
- 07/09/07 Division of Fisheries & Wildlife, Natural Heritage & Endangered Species Program
- 07/10/07 Westfield Gas & Electric
- 07/10/07 Connecticut River Watershed Council
- 07/11/07 Department of Environmental Protection, WERO
- 07/11/07 The Town of Ludlow, Department of Public Works
- 07/11/07 Town of Georgetown Municipal Light Department

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