

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

CERTIFIED MAIL RETURN RECEIPT REQUESTED

December 5, 2008

Andrew W. Lord, Esq.
Murtha Cullina LLP
CityPlace I, 185 Asylum Street
Hartford, CT 06103-3469

RE: **PETITION NO. 875** - GenConn Energy LLC petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation and operation of four 50 MW peaking units at the Middletown Station located at 1866 River Road, Middletown, Connecticut.

Dear Attorney Lord:

At a public meeting held on December 4, 2008, the Connecticut Siting Council (Council) considered and ruled that this proposal would not have a substantial adverse environmental effect, and pursuant to General Statutes § 16-50k would not require a Certificate of Environmental Compatibility and Public Need with the recommendations that GenConn take the following actions prior to construction:

- GenConn shall submit a final site plan for the proposed project to the Council.
- GenConn shall seek and submit Department of Environmental Protection comments and statement of compliance to the Council.
- GenConn shall submit modifications of its National Pollution Discharge Elimination System (NPDES) and Storm water Associated with Industrial Activities permits to the regulating agency.
- GenConn shall complete soil remediation in areas of the proposed project, if necessary, consistent with the Connecticut Transfer Act (Connecticut General Statute Section 22a-134).
- GenConn shall coordinate with the City of Middletown on resolution of the concerns specified in the traffic study.
- GenConn seek and submit Federal Aviation Administration recommendations for air navigation lighting and/or marking of the proposed stacks.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition, dated November 3, 2008, and additional correspondence dated November 21, 2008.

Enclosed for your information is a copy of the staff report on this project.

Very truly yours,

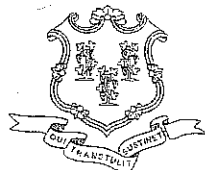
Daniel F. Caruso
Chairman

DFC/FOC/laf

Enclosure: Staff Report dated December 4, 2008

c: The Honorable Sebastian N. Giuliano, Mayor, City of Middletown
William Warner, AICP Director, City of Middletown





Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Petition No. 875
GenConn Energy LLC
Middletown Station, Middletown
Staff Report
December 4, 2008

Introduction

On November 3, 2008 GenConn Energy LLC (GenConn) submitted a petition to the Connecticut Siting Council (Council) for a Declaratory Ruling approving GenConn's proposal to install and operate four additional electric generating units of approximately 50 megawatts (MW) each at Middletown Station, Middletown, CT. On November 24, 2008, Council members Edward Wilensky, Dr. Barbara Bell and Daniel Lynch, Jr. with Fred Cunliffe of Council staff met GenConn representatives Ray Long, Jonathon Milley, Nick Galotti, David Carpenter and Anthony Marone to review the proposed project. Mayor Sebastian Guliano was in attendance.

Pursuant to Section 16-243u of the General Statutes and the Department of Public Utility Control (DPUC) Docket 08-01-01 Review of Peaking Generation Projects, the DPUC awarded GenConn the right to provide peaking capacity. On October 6, 2008 GenConn and Connecticut Light and Power Company (CL&P) entered into a 30 year contract that has been approved by the DPUC. Also, such peaking generation shall bid the unit into all regional markets run by the Independent System Operator (ISO), including the energy market, capacity market or forward reserve market, using cost-of-service principles. GenConn has submitted to ISO-New England necessary qualifications to qualify and participate in the Forward Capacity Auction scheduled for December 2008 for commitment period beginning 2011.

The proposed project is eligible for approval by a declaratory ruling pursuant to Connecticut General Statutes § 16-50k(a) because the proposed generating units would be located at a site that was used for electric generation prior to July 1, 2004.

GenConn is a 50/50 joint venture between NRG Energy, Inc. (NRG) and The United Illuminating Company (UI). NRG is a power generation company headquartered in Princeton, New Jersey. UI is an electric transmission and distribution company primarily serving customers in the Greater New Haven and Greater Bridgeport areas.

Consultations

GenConn has consulted with state and local officials regarding the proposed project, including

- Connecticut Department of Public Utility Control
- Connecticut Department of Environmental Protection (DEP)
- City of Middletown Mayor Sebastian Guliano
- City of Middletown Common Council
- City of Middletown Fire District leadership
- State legislators representing Middletown

Issues raised by the above parties and addressed by GenConn include environmental improvements to the emissions profile of the facility; preserving current staffing levels or increasing employment; and maintaining the current tax level or greater as additional equipment is added.



Mayor Guliano submitted a letter on December 2, 2008 in support of the project. Likewise the City of Middletown adopted a resolution authorizing the City to enter into a 30-year tax stabilization agreement with GenConn.

The Town of Portland was provided a copy of petition by Council staff with an expected comment date deadline of November 24, 2008. No comment was provided.

Existing Site

The existing Middletown Station is located at 1866 River Road, Middletown, CT. It consists of an approximate 68-acre parcel, owned by NRG Middletown Power LLC. The existing power plant is visible from the Connecticut River and from the Portland side overlooking the Connecticut River. Middletown Station is remotely located on the east side of Middletown and is located approximately one mile south of the Kleen Energy Plant, which is under construction.

Middletown Station was originally put into service in the 1950s. The power station is currently comprised of four units. Units 2 and 3 are dual-fuel steam generators with a capacity rating of 120 and 245 MW, respectively, and each unit has a 265-foot high stack. Unit 4 has a capacity rating of 402 MW and is fueled by No. 6 oil. It has a 475-foot high stack. Unit 10 is a 22 MW jet unit with a 26-foot high stack. NRG has been operating Middletown Station as a peaking resource since its purchase in 1999.

Proposed Project

GenConn proposes to install four 50 megawatt (MW) combustion turbines, a new 345-kV switchyard, and a new one million gallon fuel storage tank at the existing Middletown facility. The proposed units, referred to as Units 12-15, would be dual-fueled and used to increase the facility's power output, meet the state's demand for electrical energy and increase reliability. An Algonquin Gas Transmission Company pipeline serves the site and a fuel oil storage tank area exists at the site.

The proposed units would be installed in an area east of the 115-kV switchyard, currently occupied by a covered parking building. This building and an adjacent building would be removed prior to construction. Two 213-foot stacks would be associated with the four new units. Stack height was determined based on the minimum height required by Department of Environmental Protection (DEP) standards. Council staff recommends GenConn seek and submit Federal Aviation Administration recommendations for air navigation lighting and/or marking of the proposed stacks.

GenConn would construct a new 345-kV switchyard to accommodate both Unit 4 and Units 12-15. (Presently, Unit 4 is connected to the 345-kV system via the CL&P-owned Scovill Rock Switching Station.) The proposed switchyard location would be central to the parcel, south and east of the existing 115-kV switchyard and in proximity to the existing 345-kV terminal structure. Since space is limited, GenConn has decided to install a Gas-Insulated Switchyard (GIS), which requires less space than an open-air switchyard.

A new one million gallon fuel storage tank would be installed at the fuel storage tank yard located on the west end of Middletown Station. The new tank would be installed at the location of a former ten million gallon fuel storage tank, neighboring two existing large tanks. The new tank would be a steel double-walled vessel approximately 42 feet tall and 50 feet in diameter. It will be located in a "tank farm" area with two other large tanks, all surrounded by an earthen dike as one form of containment. A secondary system is the tank's double-walled construction, and a tertiary system involves monitoring to show any

leakage between the tank's two walls. The tank's one million gallons of low-sulfur fuel oil is adequate to run Units 12-15 at full output for approximately 72 continuous hours (or nine hot summer days if the units were dispatched for eight hours a day) without refueling the tank.

Fuel oil for the new tank would come in by barge along the Connecticut River, an existing, well-established procedure for the station's currently operating units. Off-loading facilities at the dock would not need to change, except that an additional fueling pipeline from the dock area to the new tank would be built a short distance above-ground.

Natural gas for the new turbines would be supplied from a new tap into the existing Algonquin gas line to the site. (Note that construction work on this gas line at the Middletown Station site would also include extending the line through and past this property to serve the nearby Kleen Energy project. The exact route of the extension has not yet been determined. It is the subject of Petition 869. The tap for units 12-15 could be constructed independent of Petition 869 and is not materially relevant to it.)

The proposed new generating turbines would be located approximately 200 feet south of the Connecticut River; however, this location is not within the 100-year flood zone nor in the flood area of Middletown Station. The proposed project would not consist of activities that occur in the water or alter the shorefront.

The proposed units would service the ISO-NE 10- or 30- minute non-spinning reserve market. Their "quick-start" capability would enable the system to recover from contingencies such as a sudden loss of generating capacity or transmission line outages. The units would have the ability to operate on both ultra-low sulfur distillate fuel and natural gas to assure economy and reliability.

Soil

The area where the proposed new switchyard would be built for connecting the new turbines to the 345kV system has been identified as possibly containing soil potentially needing remediation. NRG has already been working with a Licensed Environmental Professional and with DEP to effect closure of contamination issues at the Middletown Station property, and GenConn will deal with whatever contamination the soils at this location might present as part of a general soil remediation plan.

Air Emission

GenConn received a Permit to Construct and Operate Combustion Turbine Units 12-15 from the Connecticut DEP on August 27, 2008. The proposed project is subject to New Source Performance Standards (NSPS), Subpart K and the federal Acid Rain Program (40 CFR § 72) because each unit is greater than the 25 MW rating for applicability. An Acid Rain permit has been issued by the DEP for the existing units; therefore, a revised Acid Rain Permit would be needed. The existing site has a Title V Operating Permit (105-0063-TV) from the DEP, which expired on June 27, 2007. GenConn submitted a timely permit renewal application to the DEP so the existing permit is deemed to be in full effect. While the proposed units were not contemplated at time of permit renewal, GenConn would submit a request to revise the Operating Permit within 12 months of the commencement of operations of the proposed project, consistent with Environmental Protection Agency regulations.

The proposed project is designed to meet Lowest Available Control Technology standards for nitrous oxide (NO_x) and Best Available Control Technology for sulfur dioxide (SO₂), carbon monoxide (CO), volatile organic compounds and particulates. Units 15-18 would consist of General Electric LM6000 aero-derivative turbines equipped with Selective Catalytic Reduction (SCR) technology to reduce emissions of NO_x and an oxidation catalyst to reduce CO emissions. No offsets for NO_x are required, since the permit threshold to acquire offsets is 25 tons per year (TPY) per unit compared to the proposed 10.8 TPY per unit.

Natural Diversity Data Base

GenConn solicited information from the DEP Natural Diversity Data Base, which identified the following species in vicinity of the proposed project; the bald eagle (Federal Threatened and State Endangered), tidewater mucket (mussel-State Threatened), eastern box turtle (State Special Concern), shortnose sturgeon (Federal and State Endangered), and Atlantic sturgeon (State Threatened). No state-listed plant species occur in the area. Since no significant changes are proposed to water diversion or discharge, impacts to water-dependent species would be minimal. However, DEP typically sets construction restrictions in habitats supporting the bald eagle and eastern box turtle. GenConn has yet to receive specific comments from DEP. GenConn has stated it is willing to seek and submit DEP comments to the Council as soon as it receives them, and to comply.

Water Use

The proposed units would be air-cooled and, therefore, would not require water for cooling. To increase summer output, water-injected air chillers would be installed. GenConn currently holds a permit to divert 284.3 million gallons per day (mgd) of water from the Connecticut River for once-through cooling and other uses associated with the production of electricity. Presently, 229.8 mgd is used for Units 2-4 and the remaining unused portion, 54.5 mgd, formerly associated with Unit 1, which is no longer active, would be available to serve Units 12-15. Each unit would require 500 gallons per minute of water (2.9 mgd equivalent, or 11.6 mgd for all four units) for air chillers during high ambient temperature days to increase output and injection for NO_x control. These requirements fall well within the available 54.5 mgd.

No changes would need to be made to the existing water intake structures or pumps to accommodate the new units; thus, there would be no construction activities on the bank of the Connecticut River.

GenConn currently holds a National Pollution Discharge Elimination System (NPDES) water diversion and discharge permit. GenConn contends water use for the proposed turbines would be far less than former Unit 1. Consequently, GenConn is required to modify its permit identifying water use associated with proposed units 12-15. DEP would review and decide the permit modification.

GenConn currently has a General Permit for the Discharge of Storm water Associated with Industrial Activities. The proposed project would be located in an existing area with an impervious surface and GenConn expects minimal changes in storm water discharge. Notice of the minimal change to storm water discharge is not required; however, GenConn will provide data to DEP.

Sound

A sound level study was performed by Michael Theriault Associates dated October 2, 2008. The units are designed to include air intake silencing, sound attenuation houses, and upgrades to SCR exhaust silencing. As a result of installing such measures, the noise emissions would be in compliance with the most restrictive standards established by the State of Connecticut.

Traffic

A traffic study was performed for GenConn by Shaw Environmental, Inc. (October 18, 2008). The study concluded that traffic during construction would have a minimal and temporary impact on roadway operations along Silver Street and River Road. It noted certain long-term concerns, however, and recommended the following:

- Repair shoulder pavement along River Road east of Riverview Hospital and regrade and clean ditch.
- Restripe double yellow lines and white edge lines of River Road from Silver Street to Middletown Station, for better visibility.
- Cut back overgrown vegetation on north guardrail along River Road from Farm Road to Middletown Station.
- Install missing "Stop" sign at intersection of Middletown Station driveway and River Road.
- Install "Dead End" sign at a suitable location to inform drivers that River Road does not continue past Middletown Station.

Council Staff Recommendations

GenConn's proposal essentially details relevant environmental impacts. Council staff recommends that GenConn take the following actions prior to construction:

- GenConn shall submit a final site plan for the proposed project to the Council.
- GenConn shall seek and submit DEP comments and statement of compliance to the Council.
- GenConn shall submit modifications of its NPDES and Storm water Discharge permits to the regulating agency.
- GenConn shall complete soil remediation in areas of the proposed project, if necessary, consistent with the Connecticut Transfer Act (Connecticut General Statute Section 22a-134).
- GenConn shall coordinate with the City of Middletown on resolution of the concerns specified in the traffic study.
- GenConn seek and submit Federal Aviation Administration recommendations for air navigation lighting and/or marking of the proposed stacks