STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

April 15, 2016

Phillip M. Small
Franca L. DeRosa
Brown Rudnick, LLP
185 Asylum Avenue, 38th Floor
Hartford, CT 06103

RE: **PETITION NO. 1219 –** Quantum Biopower Southington, LLC petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 1.1 megawatt anaerobic digestion and combined heat and power electric generating facility located at 49 DePaolo Drive, Southington, Connecticut.

Dear Attorney Small and Attorney DeRosa:

At a public meeting held on April 14, 2016, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

1. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;

2. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Southington;

3. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

4. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;

5. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and

6. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

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 March 9, 2016 and supplemental information submitted by email correspondence on April 8, 2016.

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

Very truly yours,

Robert Stein
Chairman

RS/RDM/lm

Enclosure: Staff Report dated April 14, 2016

c: The Honorable Michael Riccio, Chairman, Town of Southington
Garry Brumback, Town Manager, Town of Southington
Robert Phillips, Director of Planning and Community Development, Town of Southington
The Honorable Ken Cockayne, Mayor, City of Bristol
William J. Veits, Planner Commission Chairman, City of Bristol
Brian Paganini, Vice President & Managing Director, Quantum Biopower Southington, LLC

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Petition No. 1219
Quantum Biopower Southington LLC
Southington, Connecticut
Staff Report
April 14, 2016

Introduction

On March 9, 2016, the Connecticut Siting Council (Council) received a petition from Quantum Biopower Southington LLC (Quantum), for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of 1.1 megawatt (MW) anaerobic digestion system and combined heat and power electric generating facility to be located at 49 DePaolo Drive in the Town of Southington, Connecticut (Petition). A field review of the proposed project site was held on April 5, 2016 and attended by Council member Robert Hannon, Council Executive Director Melanie Bachman, Council staff member Robert Mercier, and Quantum representatives Philip Small Esq., Franca DeRosa, Esq., Brian Paganini, George Andrews Jr., and Mark Vigneault. The Town of Southington, the City of Bristol (within 2,500 feet) and all abutting property owners were notified of the Petition filing. No comments have been received to date.

Public Benefit

The project would be a "Class I renewable energy source" and "grid-side distributed resources" facility, as defined in Connecticut General Statutes (CGS) § 16-1(a) (20) and (37), respectively. CGS § 16a-35k establishes the State's energy policy, including the goal to "diversify the state's energy supply mix." Specifically, the proposed facility will contribute to fulfilling the State's Renewable Portfolio Standard as a Class I renewable energy source. Moreover, it furthers the State's initiative to develop infrastructure which provides a comprehensive and sustainable approach to organics management, as specified in CGS § 22a-226e.

Proposed Project

The proposed project site is located on a 37.2 acre parcel owned by B&R Corporation (B&R), an affiliate of Quantum. In addition, B&R leases an adjacent 19.3 acre parcel from the Town of Southington which includes the Town's closed landfill. The property, zoned industrial, is used by B&R as a clean wood volume reduction, leaf compost, and mulch manufacturing facility.

The proposed facility would occupy approximately two acres in the south central portion of the B&R property, near the main entrance off DePaolo Drive. The proposed project would consist of the following components:

- a 125-foot by 60-foot food waste receiving/processing building;
- a 18-foot by 30-foot water pump house;
- four digester process tanks of varying sizes, the largest being 60 feet tall with a diameter of 59 feet;
- two water tanks, both approximately 25 feet tall and with diameters of 18 feet and 41 feet, respectively;
- a biogas handling unit;
- a combined heat and power unit (CHP);
- odor control equipment;
- candlestick flare enclosure - 27 feet tall with a five foot diameter;
- electrical transformer and switchgear equipment; and
- gravel parking and driveway areas.

The project would use approximately 40,000 tons per year of organic food waste in an anaerobic digestion process to generate methane biogas. The gas would be used in a CHP unit to generate 1.1 MW of electricity. The electric power would be transmitted to the local 13.8-kV distribution network using on-site utility poles.

Quantum has obtained an agreement with Eversource for the utility interconnection and has secured a power purchase agreement with the Town of Southington to sell a portion of the electricity generated by the facility to the Town pursuant to Connecticut's Virtual Net Metering Rules.

Anaerobic Digestion Process

Food waste used at the facility would be obtained mostly from large food waste producers within a 20 mile radius of the site. Most of the food waste would be "clean waste" that requires no initial processing. Waste that has packaging - "contaminated waste"- would make up eight to fifteen percent of the incoming food waste stream. Contaminated waste would be mechanically processed to remove packaging prior to use in the bio-digestion process.

Food waste would be initially treated in a reception tank and then a reactor tank to create a homogenized waste that is transferred to the anaerobic digester tank. Methane is extracted from the digester tank and is used in the CHP to generate power and heat. Heat (hot water) would be used in facility operations and in a B&R building adjacent to the facility. An enclosed candlestick flare would be used to burn off methane if the CHP unit is not operational.

Solid waste resulting from the anaerobic digester process would be mechanically extracted from the digester tank, pressed, and packaged for use as a fertilizer/compost product for sale to other users. Wastewater from facility operations would be treated on-site before discharge to the Town's water pollution control facility using existing on-site sewer lines. Odor control would utilize negative pressure air units to filter process air through an activated carbon system.

Operation

The digester and CHP would continuously operate. Personnel would be on site from 7 AM to 5 PM Monday through Saturday. Truck deliveries, estimated at eight per day, and associated material processing, would occur during these times. The facility would be remotely monitored using a SCADA system on a 24/7 basis to detect abnormalities in operation.

Environmental

The property is located in an industrial area of Southington. Developed industrial properties are located to the southeast and large tracts of land owned by TILCON are located to the west. Sparse residential development and agricultural use is located to the north and east. The nearest residential structure is over 1,000 feet east of the proposed project.

The project development area is in a flat open area devoid of vegetation. The project would have no impact on State or Federal listed plant or animal species. The nearest wetland is 500 feet southeast of the site and would not be impacted by the project. Storm water would be controlled by direct infiltration and through sheet flow to a detention basin located south of the facility buildings. Erosion and sediment controls would be established in accordance with *2002 Connecticut Guidelines for Erosion and Sedimentation Control*, as amended.

Quantum submitted a project review request to the State Historic Preservation Office. Although SHPO did not respond, the State archeologist responded stating the project would have no effect on archeological resources.

A noise analysis indicates noise from the facility would not exceed applicable regulatory criteria at the nearest residential property line.

The property is surrounded by mature pine trees offering year-round screening from adjacent parcels except to industrial buildings to the southeast. Landscaping would be planted in this area. Other tall structures visible from the general area are the OTIS Elevator test tower and the exhaust stack from the Cavanta Resource Recovery facility.

Department of Energy and Environmental Protection

The proposed facility would comply with all applicable Department of Energy and Environmental Protection (DEEP) air and water quality standards and would also meet wastewater discharge requirements of the Town of Southington. Quantum would register the project under DEEP's Miscellaneous Discharges of Sewer Compatible Wastewater general permit. Quantum is in the process of obtaining a DEEP New Source Review Permit for Stationary Sources of Air Pollution for the facility. The proposed CHP unit will incorporate control technologies, including a selective catalytic reduction and oxidation catalyst system to reduce nitrogen oxide (NOx), carbon monoxide (CO), and volatile organic compound (VOC) emissions to levels that meet CT DEEP's best achievable control technology (BACT) requirement. Atmospheric dispersion modeling performed in support of permitting has demonstrated that the operation of the Facility would not cause or contribute significantly to a violation of any federal or state air quality standard or prevention of significant deterioration increment. The flare emissions would be regulated by limiting the operating hours to 1,500 hours per year.

Quantum is presently registered with DEEP for a General Permit for the Discharge of Stormwater and Dewatering of Wastewater for Construction Activities and a General Permit for the Discharge of Stormwater Associated with Industrial Activity.

On March 2, 2016, DEEP published a Notice of Tentative Determination to Approve a Permit to Construct and Operate a Solid Waste Facility related to the proposed project.

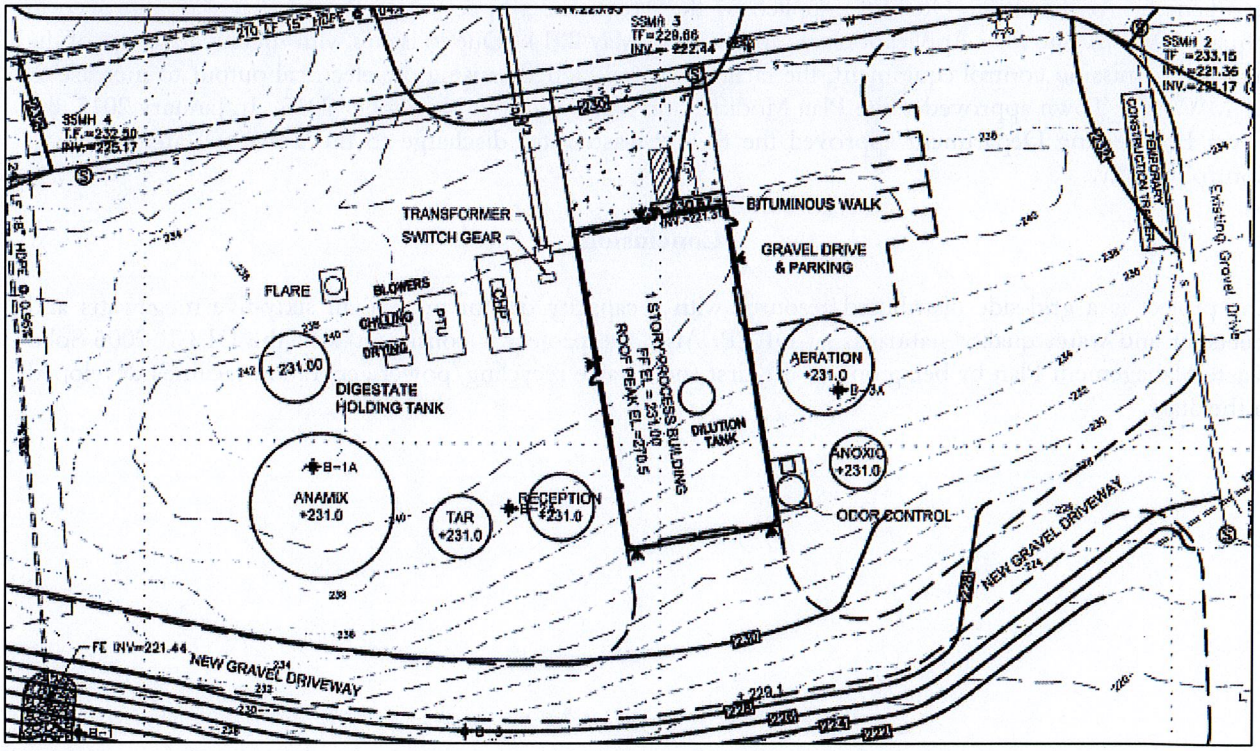
Municipal Approvals

The Project was initially designed as a 939 kilowatt project, below the 1 MW threshold for Council jurisdiction. At that time, Quantum applied to the Town for a Special Use Permit that was approved in January 2014. A Site Plan Application was approved in May 2014. Due to issues with the initial design of the facility air emission control equipment, the facility was redesigned causing the electrical output to increase to 1.1 MW. The Town approved a Site Plan Modification Application in November 2015. In January 2015, the Town Engineering Department approved the facility wastewater discharge to the Town's Water Pollution Control Facility.

Conclusion

The project is a grid-side distributed resource with a capacity of not more than sixty-five megawatts and meets air and water quality standards of DEEP. Also, the project is consistent with the DEEP 2006 Solid Waste Management Plan by being one of the first food waste recycling/power generation facilities developed in the State.

Aerial View of 49 DePaolo Drive and the Surrounding Area



Project layout