

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

PETITION OF VFS, LLC : PETITION NO.
FOR A DECLARATORY :
RULING FOR THE LOCATION AND :
CONSTRUCTION OF A 4 MEGAWATT :
FUEL CELL GRID-SIDE DISTRIBUTED :
ENERGY RESOURCE AT 1225 CENTRAL
AVENUE, BRIDGEPORT, CONNECTICUT

PETITION OF VFS, INC. AS AN OWNER/OPERATOR
FOR A DECLARATORY RULING

Pursuant to Conn. Gen. Stat. §§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 et seq., VFS, Inc. (“VFS”), as an Owner/Operator , requests that the Connecticut Siting Council (“Council”) approve by declaratory ruling the location and construction of a grid-side distributed resources project comprised of thirteen (13) Bloom Energy ES5 Energy servers and associated electrical equipment. (the “Facility”), providing 4 megawatts (“MW”) of power to the Grid at 1225 Central Ave. Bridgeport, CT (*See Exhibit 1*). The Facility will be installed, owned, maintained, and operated by VFS.

Conn. Gen. Stat. § 16-50k(a) provides that:

Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any fuel cell, unless the council finds a substantial adverse environmental effect or of any customer-side distributed resources project or facility . . . with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection.”

I. INTRODUCTION

The proposed Facility will be a grid-side distributed resource under 65 MW that complies with the air and water quality standards of the Department of Energy and Environmental Protection (“DEEP”). VFS submits that no Certificate of Environmental Compatibility and Public Need is required because the proposed installation will not have a substantial adverse environmental effect.

II. COMMUNICATIONS

All communications should please be directed to the following:

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III Discussion

A. The facility

The proposed Facility will be located in the Northeast corner of the site adjacent to Central Ave. (See Exhibit 1). The proposed installation will consist of thirteen (13) ES5 Fuel Cell Energy Servers manufactured by Bloom Energy of San Jose, CA. capable of producing 4 megawatts of power delivered directly to the local electric grid. The Fuel Cells are totally enclosed, factory-assembled and tested prior to shipment. The total installation including electrical switch gear,

protective relays and transformers will encompass an area 120' x 77'. Utility connections will extend to the East underground to central Ave.

VFS, LLC. was awarded the project under the Shared Clean Energy Facility program and the project was approved by PURA on 5-27-2022. All power produced by the facility will be traded directly to the grid as baseload energy utilizing a Class one renewable energy source for the full 20 year term of the contract with United Illuminating. Reference Exhibit 1.

Public Health and Safety

The facility will be designed and installed in full compliance with all state and local Building codes and in full compliance with NFPA 853. The fuel cells utilized are fully enclosed and tested prior to deployment to the field. The solid Oxide media has a maintenance life of approximately 5 years and will be exchanged at that interval. The energy servers are controlled by Bloom Energy Remote Monitoring Control Center "RMCC". System conditions are continuously monitored and the fuel cells can be shutdown if an unsafe condition is detected. VFS, LLC. will provide the City of Bridgeport Fire Dept. with an Emergency Response Plan. First responders will be given access to the facility through the use of Knox box access devices at all entry points. Prior to commissioning all fuel piping will be purged clean in full compliance with "The Thomas Act" utilizing inert gas or compressed air. No natural gas will be used to purge piping.

Site Conditions

The site is presently being utilized for miscellaneous soils storage with a commercial building in the Southeast corner some 100 feet from the proposed facility. The completed facility will be fully fenced with 8' chain link and privacy slats.

C. Existing and Proposed Conditions

i. The Site

The site is located in the Southeast area of the City in a Heavily developed Urban area with the Metro-North rail 400' to the North and I-95 some 3000' to the south. The property measuring .79 acres, is zoned I, Industrial Zone and the immediately to the South is zoned NX 2 Mixed Neighborhood and is a mix of multi-family residential and commercial properties. The site is bordered to the South by Wiliston St. with Bunnell St. to the West. The completed facility will be constructed on a concrete foundation, fully fenced with paved service access from the existing adjacent parking area. Reference Exhibit 2.

ii. Wildlife

After review of the Natural Diversity Database we found no evidence of any State or Federal listed species or critical habitats. Reference Exhibit 3. Therefore no consultation with DEEP is required. Due to extensive urban development in the area the addition of the facility will have no detrimental effect on the wildlife habitat.

iii. Wetlands and Watercourses

The nearest watercourse is Yellow Mill Pond located some 1100' to the West. Upon review of the "Connecticut Inland Wetlands Soils" map published by CT. DEP dated October 2009 the site does not appear to be in or near any wetlands. Appropriate erosion control measures to prevent storm water discharge from the site will be utilized during construction and until the site is stabilized. Reference Exhibit 4.

iv. Flood Zones and Aquifer Protection Areas

A review of flood mapping data from Federal Emergency Management Agency NFIB shows that the site is not in the 100 nor 500 year flood zone. The DEEP Aquifer Protection Mapping shows the nearest Protection Zone over 9 miles to the west of the proposed facility. Reference Exhibits 5 and 6.

v. Cultural Resources

The site has been heavily developed and disturbed. The construction and operation of the facility will have no adverse effect on cultural resources.

vi. Natural Gas Desulfurization Process

Sulfur compounds that are added to natural gas as an odorant are removed in the first step of electricity production in a Bloom Energy Server. Sulfur is separated from the natural gas by filtering in a specialized canister within the Energy Server (the "Desulf Unit") that uses a copper

catalyst to remove the sulfur. The Desulf Units are periodically removed and replaced. The spent units are transported to ShoreMet, L.L.C. (ShoreMet) in Indiana, where they are opened, the contents are removed and copper is used as an ingredient in various products. The Desulf Units are then cleaned, refilled, and sent back to the field for reuse. Handling and transportation are performed in accordance with hazardous waste restrictions.

vii. Water, Heat and Air Emissions

The construction and operation of the Facility will comply with DEEP's air and water quality standards and will not have a substantial adverse environmental effect. The Facility is designed to operate without water discharge under normal operating conditions. There are no connections or discharge points to the proposed Facility. The Facility uses no water after start-up.

Heat generated by the proposed Facility is used internally to increase the electrical efficiency of the fuel cell system. As a result, there is no useful waste heat generated by the fuel cell. The minimal amount of thermal load present at the Site would preclude the efficient deployment of a combined heat and power application.

Conn. Agencies Regs. § 22a-174-42 exempts fuel cells from air permitting requirements. Accordingly, no permits, registrations, or applications are required based on the actual emissions from the Facility. It should be noted, however, that Bloom Energy fuel cells do meet the emissions standards of Section 22a-174-42.

The Facility will also meet state criteria thresholds for all greenhouse gases defined in Section 22a-174-1(49). Table 1 lists thresholds set by the Low and Zero Emissions Renewable Energy

Credit (LREC/ZREC) program, and compares them to emissions generated from the proposed Facility. By virtue of the non-combustion process the Bloom Energy fuel cells virtually eliminate NOx, SOx, CO, VOCs and particulate matter emissions from the energy production process. Similarly, there are no CH4, SF6, HFC or PFC emissions.

Table 1: Connecticut Thresholds for Greenhouse Gases

| Emission Type | Bloom Output | LREC allowance |
|-----------------------------------|---------------------|-----------------------|
| Nitrous Oxides (NOx) | <0.01 lbs/MWh | 0.07 lbs/MWh |
| Carbon Monoxide (CO) | <0.05 lbs/MWh | 0.10 lbs/MWh |
| Sulfur Oxides (SOx) | Negligible | Not Listed |
| Volatile Organic Compounds (VOCs) | <0.02 lbs/MWh | 0.02 lbs/MWh |
| Carbon Dioxide (CO2) ⁵ | 679-833 lbs/MWh | Not Listed |

³ See Conn. Agencies Regs. §§ 22a-174-42(b) and (e).

⁴ Sec. 16-244t

⁵ Carbon dioxide is measured at Bloom’s stated lifetime efficiency level of 53-60%.

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The proposed Facility will ultimately displace less efficient fossil fueled marginal generation on the ISO New England system. Based upon US Environmental Protection Agency (EPA) “eGrid” data, the proposed Facility is expected to reduce carbon emissions by more than 25% while essentially eliminating local pollutants like NOx, SOx and particulate discharge.

viii. Acoustics

Acoustical Technologies, Inc. performed a positive onsite assessment to prove compliance with Local and State noise ordinances. In summary their testing proved full compliance with all applicable ordinances. A detailed report is attached as exhibit 7.

viii. Visual Effects

The facility will be located in a heavily developed IL zoned light Industrial area. The facility will be fenced and privacy screening will be utilized to diminish any visual effect on the surrounding area. Reference Exhibit 2.

D. Construction and Maintenance

Construction of the Facility is expected to begin in June of 2024 and will take Approximately 6 months. Although the construction will not disturb one acre of area strict compliance with erosion control best practices will be adhered to during construction activities and until the area is stabilized. Regular maintenance will be performed by Bloom Energy Technicians traveling to the site.

5. Public Notice

Notice was provided via certified mail to all property owners, abutters pursuant to Conn. Agencies Regs. §16-50j-40(a). VFS, LLC. copy of the notice letter, Abutters list and Abutters' Map are included in Exhibit 8, 9 and 10. Prior to filing this Petition, VFS, LLC also sent notices to all applicable Federal, State and Municipal officials of Bridgeport as listed in Exhibit 11. Exhibit 12 shows the certified mail receipts for State and Municipal officials and Abutters.

E. CONCLUSION

As set forth above, VFS, LLC requests that the Council issue a determination, in the form of a declaratory ruling, that the proposed installation above is not one that would have a substantial adverse effect, and, therefore, that a Certificate is not needed.

Respectfully submitted,

Steve Pearson

VFS, LLC

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Clarkston MI. 48346

List of Exhibits

- Exhibit 1: GA1, Site Plan and E1, Electrical One Line
- Exhibit 2: Zoning Map
- Exhibit 3: NDDB map
- Exhibit 4: Wetlands Soils Map
- Exhibit 5: FEMA Flood Map
- Exhibit 6: Aquifer Protection Zone Map
- Exhibit 7: Acoustics Report
- Exhibit 8: Notice Letter to Abutters and Officials
- Exhibit 9: Abutters List
- Exhibit 10: Abutters Map
- Exhibit 11: Officials Notice List
- Exhibit 12: Proof of Mailing