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
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

July 7, 2026

Donald Emanuel
Installation Project Manager
Doosan Fuel Cell America, Inc.
101 East River Drive
East Hartford, CT 06108
donald.emanuel@doosan.com

RE: **PETITION NO. 1393** – Doosan Fuel Cell America, Inc. Declaratory Ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the construction, maintenance and operation of a 440-kilowatt customer-side fuel cell facility and associated equipment to be located at Cherry Street Lofts, 375 Howard Avenue, Bridgeport, Connecticut. **Expired Declaratory Ruling.**

Dear Donald Emanuel:

Pursuant to Connecticut General Statutes §§ 4-176 and 16-50k, the Connecticut Siting Council (Council) approves Petitions for Declaratory Rulings for facilities or modifications to existing facilities that would not have a substantial adverse environmental effect. The Council routinely imposes standard conditions when issuing Declaratory Rulings. Furthermore, the Council may add site-specific conditions that require further effort by the petitioning entities to provide written confirmation to the Council that the conditions have been met.

To date, the Council is not in receipt of any communication that site-specific conditions applied to the above-referenced Declaratory Ruling have been met. The Council is also not in receipt of any notification that construction has been completed. Therefore, the Declaratory Ruling for this facility has expired. For your convenience, the Declaratory Ruling is attached.

Please note that any request for a facility at 375 Howard Avenue, Bridgeport must be submitted to the Council as a new petition for a declaratory ruling that must follow the applicable statutory and regulatory requirements.

Should you have any questions, please feel free to contact the Council's office.

Thank you for your attention to this important matter.

Sincerely,

Melanie A. Bachman, Esq.
Executive Director

MAB/IN/dll

Enc. Declaratory Ruling, dated May 26, 2020

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport (mayor@bridgeportct.gov)

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VIA ELECTRONIC MAIL

May 26, 2020

Donald Emanuel
Installation Project Manager
Doosan Fuel Cell America, Inc.
101 East River Drive
East Hartford, CT 06108

RE: **PETITION NO. 1393** – Doosan Fuel Cell America, Inc. petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 440-kilowatt customer-side fuel cell facility and associated equipment to be located at Cherry Street Lofts, 375 Howard Avenue, Bridgeport, Connecticut.

Dear Mr. Emanuel:

At a public meeting held on May 21, 2020, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal meets air and water quality standards of Department of Energy and Environmental Protection and 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. Approval of any minor project changes be delegated to Council staff;

2. Submit post-construction noise measurements to ensure compliance with state and local noise control standards with the recommendation to meet the predicted 58 dBA provided in the noise assessment and in response to Council Interrogatory No. 12;

3. The acoustic barrier shall be installed in accordance with the report prepared by Acoustical Technologies Inc., dated March 17, 2020, including the east side of the cooling module, to ensure compliance with the DEEP Noise Control Standards;

4. Provide a copy of the Fuel Cell Emergency Response Plan to local emergency responders prior to facility operation, and provide emergency response training, if requested;

5. Submit the following information to the Council 15 days prior to any fuel pipe cleaning operations related to fuel cell construction, installation, or modification:
    a. Identification of the cleaning media to be used;
    b. Identification of any known hazards through use of the selected cleaning media;
    c. Description of how known hazards will be mitigated, including identification of any applicable state or federal regulations concerning hazard mitigation measures for such media;
    d. Identification and description of accepted industry practices or relevant regulations concerning the proper use of such media;
    e. Provide detailed specifications (narratives/drawings) indicating the location and procedures to be used during the pipe cleaning process, including any necessary worker safety exclusion zones;

f. Identification of the contractor or personnel performing the work, including a description of past project experience and the level of training and qualifications necessary for performance of the work;
g. Contact information for a special inspector hired by the project developer who is a Connecticut Registered Engineer with specific knowledge and experience regarding electric generating facilities or a National Board of Boiler and Pressure Vessel Inspector and written approval of such special inspector by the local fire marshal and building inspector; and
h. Certification of notice regarding pipe cleaning operations to all state agencies listed in General Statutes § 16-50j(h) and to the Department of Consumer Protection, Department of Labor, Department of Public Safety, Department of Public Works, and the Department of Emergency Management and Homeland Security;

6. Compliance with the following codes and standards during fuel cell construction, installation or modification, as applicable:
    a. NFPA 54
    b. NFPA 853; and
    c. ASME B31;

7. Submit a copy of an Emergency Response/Safety Plan within 90 days of the date of this decision that includes, but is not limited to the following:
    a. A description of the results of any simulated emergency response activities with any state and/or local emergency response officials;
    b. Details of any facility site access system; and
    c. Establishment of an emergency responder/local community notification system for on-site emergencies and planned construction-related activities that could cause community alarm. The system shall include notification to the following: local emergency responders, city or town officials, state legislators, and local residents that wish to participate.

8. 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;

9. 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 City of Bridgeport;

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

11. 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;

12. 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

13. 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.

Additionally, the Council recommends that Doosan Fuel Cell America Inc. work with the property owner and/or the City of Bridgeport regarding screening.

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, received February 10, 2020, including additional information received on February 18, 2020, March 9 and 17, 2020, and April 8, and 14, 2020 and in compliance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.

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

Sincerely,

s/Melanie A. Bachman

Melanie A. Bachman
Executive Director

MAB/IN/lm

Enclosure: Staff Report dated May 21, 2020

c: The Honorable Joseph P. Ganim, First Selectman, City of Bridgeport
Thomas F. Gill, Director of Planning and Economic Development, City of Bridgeport
Richard E. Thode, Fire Chief, City of Bridgeport

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Petition No. 1393
Doosan Fuel Cell America
Cherry Street Lofts, 375 Howard Avenue
Bridgeport, Connecticut.
Staff Report

May 21, 2020

Introduction

On February 10, 2020, the Connecticut Siting Council (Council) received a petition from Doosan Fuel Cell America, Inc. (Doosan) for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the installation of a 440 kilowatt (kW) combined heat and power fuel cell facility at Cherry Street Lofts located at 375 Howard Avenue, Bridgeport, Connecticut.

The proposed Doosan fuel cell facility would be installed to provide power to five tenant buildings located adjacent to the proposed project. These five buildings include a school, an apartment building and offices (see Fig.1).

Doosan mailed notification of the project to abutting property owners, City of Bridgeport (City) officials, and required state agencies and officials on or about January 29, 2020.

On February 11, 2020, the Council sent correspondence to the City stating that the Council has received the Petition and invited the municipality to contact the Council with any questions or comments by March 11, 2020. The Council has not received any comments to date.

On February 11, 2020, pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, the Council notified all state agencies listed therein, requesting comments regarding the proposed project be submitted to the Council by March 11, 2020. The Council on Environmental Quality (CEQ) responded on February 26, 2020. CEQ's comment letter is attached to this staff report.[1]

On February 13, 2020, the Council deemed the petition incomplete and requested Doosan provide proof of service of a copy of the petition on Hancock Avenue Partners LLC (an abutting property owner), the Metropolitan Council of Governments and State Representative Antonio Felipe. On February 18, 2020, Doosan provided proof of service of a copy of the petition on the above referenced entities. By letter dated February 20, 2020, the Council deemed the petition complete for processing per RCSA §16-50j-40.

[1] While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies. (See *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007).

On February 26, 2020, a public field review of the proposed project site was conducted. The field review was attended by Council member Larry Levesque; Council staff members Ifeanyi Nwankwo and Fred Cunliffe; Scott Guilmartin Principal for Nupower, Donald Emanuel project Manager for Doosan and Tony Soter and Jerome White representing the local electric union.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take action on a petition within 60 days of receipt. April 10, 2020 was the deadline for this petition under CGS §4-176(e). However, in response to the Coronavirus pandemic, on March 25, 2020, Governor Lamont issued Executive Order No. 7M that provides for a 90-day extension of statutory and regulatory deadlines for administrative agencies.

The Council issued interrogatories to Doosan on February 27, 2020. Doosan responded to Council interrogatories on March 9, 2020 and March 18, 2020. The Council issued a second set of interrogatories to Doosan on April 13, 2020. Doosan responded to the second set of Council interrogatories on April 14, 2020.

Public Benefit

The project would be a "customer-side distributed resources" facility, as defined in CGS §16-1(a)(49). CGS §16a-35k establishes the State's energy policy, including the goal to "develop and utilize renewable energy resources…to the maximum practicable extent." The proposed facility is a distributed generation resource and will contribute to fulfilling the State's Renewable Portfolio Standard as a low emission Class I renewable energy source. The project was selected as part of the Low Emissions Renewable Energy Credit (LREC) program.

Project Site

The underlying property owned by 72 Cherry Street Associates is located in a mixed use industrially zoned area, abutting other industrial properties, and bordered by a railroad to the north and a highway to the south. The nearest residences are more than 300 feet northeast of the proposed site. The Doosan fuel cell facility would be located within a courtyard bordered on all sides by the five tenant buildings (See Fig. 2).

Proposed Project

The proposed fuel cell facility would consist of one Doosan PureCell Model 400 fuel cell power module that utilizes a non-combustion phosphoric acid technology that interacts with natural gas to generate electrical power. The amount of phosphoric acid complies with applicable state and federal regulations.

The facility would operate in parallel with the utility grid and would be able to provide 91.1% percent of the tenant's electrical needs under normal conditions. Any excess electricity generated by the facility would be transferred to the local electric grid in accordance with the interconnection agreement with the United Illuminating Company. The fuel cell facility would automatically disconnect from the electric grid during a utility outage and operate in idle mode, only providing power to its own internal processes. The fuel cell would produce waste heat at 250°F and would be transferred to the Great Oaks Charter School to support building heat and domestic hot water usage.

The proposed fuel cell is approximately 29 feet long by 8.3 feet wide by 10 feet high and would be installed on a proposed concrete pad. The concrete pad would be expanded to the east by 480 square feet to accommodate a cooling module and a gas interconnection point. The cooling module is approximately 7.8 feet wide by 16 feet long by 6 feet high. The fuel cell power module would be enclosed inside a 6-foot high chain link fence and the cooling module would be enclosed by a 12-foot high chain link fence. The fuel cell would connect to on-site electric, water, and natural gas services.

The fuel cell and related infrastructure would have an operational service life of 20 years; however, a component overhaul would be required after 10 years. Project decommissioning would include the disconnection and removal of all equipment from the concrete pad
Project construction was expected to begin on April of 2020 and continue for 15 weeks, followed by 4 weeks of testing. Construction hours are expected to be between 8:00 a.m. to 5:00 p.m. Monday through Friday.

Environmental Effects and Mitigation

The fuel cell facility would comply with all applicable Department of Energy and Environmental Protection (DEEP) water quality standards as no water would be consumed or discharged once the facility is operational. The site is not within an Aquifer Protection Area. The proposed fuel cell facility would have virtually no water usage or discharge. Water consumption would only occur at system fill and makeup water. Minimal discharge of de-ionized water would occur in rare instances.

Air emissions produced during fuel cell operation would be below DEEP applicable limits for a new distributed generator, as shown below, and thus, no DEEP air permit is required.

Comparison of the Fuel Cell Facility with RCSA Criteria *		
Compound	Fuel Cell Facility(lbs./MWh)	Emissions standards(lbs./MWh)
NOx	0.01	0.15
CO	0.02	1.0
CO_2	1,049	1,650

* Regulations of Connecticut State Agencies Section 22a-174-42(b)(3)(C); 22a-174-42(d)(2)(B)(ii) & Table 42-2

The proposed facility would emit no methane (CH_4), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs) or perfluorocarbons (PFCs), which are greenhouse gases defined in RCSA § 22a-174-1(49), and would emit negligible amounts of sulfur oxides, volatile organic compounds and particulate matter.

The fuel cell desulfurization system would remove sulfur that is used as an odorant in natural gas because it is a fuel cell system catalyst contaminant. Desulfurization creates zinc-sulfide, a non-hazardous waste that would be contained within the fuel cell unit until facility refurbishment is required, usually after 10 years of operation. The waste zinc sulfide would be removed by trained personnel and sent to a reclamation facility.

Visual impact from the proposed project would be minimal as it would be screened on all sides by the tenant buildings. Doosan intends to install colored slats in the chain link fence that will show on the outside of the fence. Doosan is also considering additional plantings within the courtyard around the fuel cell.

The Project area is not located within a DEEP Natural Diversity Database (NDDB) buffered area.

No core forest or prime farmland would be disturbed by construction of the facility. The proposed site is located in an active construction area for the renovation of the existing buildings. No known historic properties would be affected by the proposed facility.

The site is not within a Federal Emergency Management Agency-designated flood zone. There are no wetlands or watercourses near the site. The site is not within an Aquifer Protection Area.

Any noise associated with the construction of this project would be temporary in nature and exempt per DEEP Noise Control Regulations. The fuel cell facility is not expected to emit noise in excess of the City Noise Ordinance, which includes the same noise standards as the DEEP Noise Control Regulations. A noise study dated March 17, 2020 assessed the noise impact of the fuel cell and the associated cooling module. The results of the study indicated that the Tutor Housing Building, which is located 32 feet from the proposed facility, would experience noise levels up to 68.3 dBA. The report recommended the use of a 2-inch thick acoustic barrier (sound blankets) on the north, south and west sides of the cooling module attached to a 12-foot fence to bring the noise levels down to 58.3 dBA. This would be in compliance with the DEEP Noise Control Regulations and City of Bridgeport Noise Ordinance threshold of 61-dBA for daytime noise emissions from an industrial emitter to a residential receptor.

Section 22a-69-2.2. (**Multiple uses**) of the DEEP Noise Control Regulations states "Where multiple uses exist within a given Noise Zone, **the least restrictive land use category** for the Emitter and Receptor shall apply..." With the installation of the sound blankets, the operation of the proposed facility would comply with DEEP's Noise Control Regulations for a Class C (industrial) emitter to Class C and Class B (commercial and educational institutions) receptors (70dBA and 66 dBA respectively).

Public Safety

During construction, Doosan would use inert nitrogen gas or atmospheric air under pressure as pipe cleaning media, in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.

The facility would be remotely monitored by Doosan on a 24/7 basis to detect abnormalities in operation. The fuel cell facility is designed in accordance with American National Standards Institute and Canadian Standards Association (ANSI/CSA) America FC 1-2004 for stationary fuel cell power systems and includes extensive safety control systems, including both automatic and manual shutdown mechanisms that comply with pertinent engineering standards.

If operational abnormalities occur, the fuel cell can be remotely shut down and personnel dispatched to service the facility. Manual shut off switches are also available to emergency personnel and the onsite facility managers. A Fuel Cell Emergency Response Guide has been developed for inclusion with the overall Facility Emergency Response Plan.

Conclusion

The project is a distributed energy resource with a capacity of not more than sixty-five megawatts, meets air and water quality standards of the DEEP, and would not have a substantial adverse environmental effect. It would reduce the emission of air pollutants that contribute to smog and acid rain, and to a lesser extent, global climate change, and furthers the State's energy policy by developing and utilizing renewable energy resources and distributed energy resources.

Recommendation

If approved, staff recommends the following conditions:

1. Approval of any minor project changes be delegated to Council staff;
2. The acoustic barrier shall be installed in accordance with the report prepared by Acoustical Technologies Inc., dated March 17, 2020, to ensure compliance with the DEEP Noise Control Regulations; and
3. Doosan will Provide a copy of the Fuel Cell Emergency Response Plan to local emergency responders prior to facility operation, and provide emergency response training, if requested.

Pictures and Site Plan of the Project Area

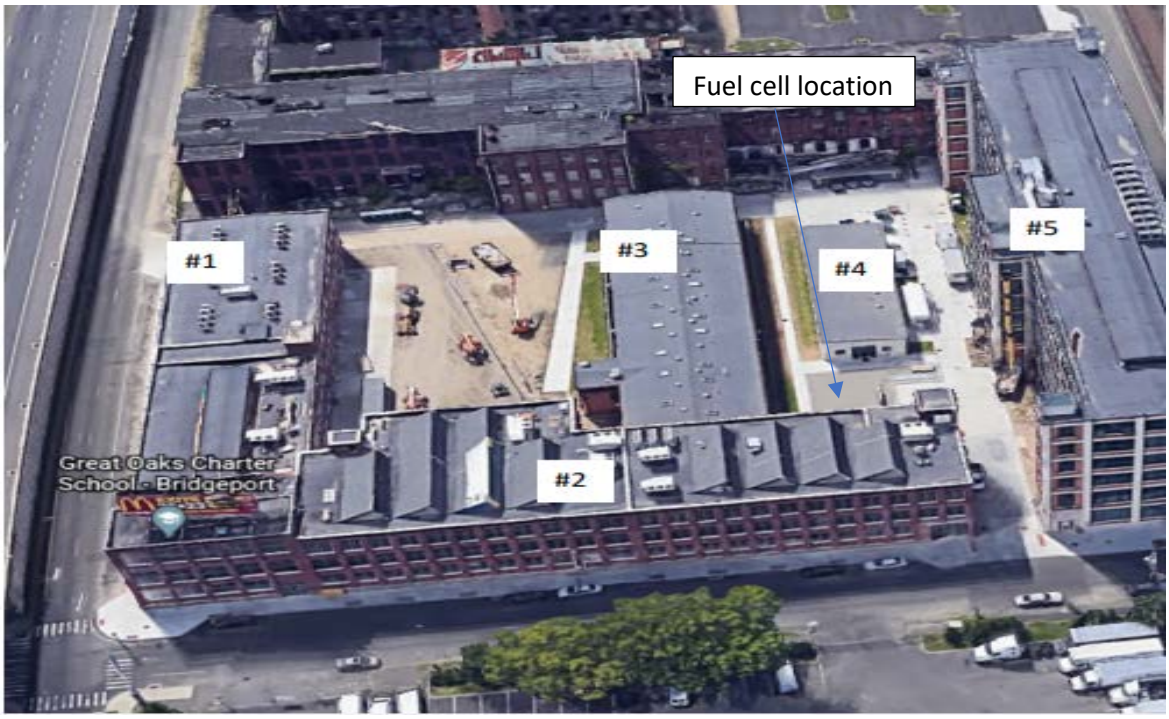

Fig. 1 Ariel View of the proposed site and buildings

1. Town House Building
2. Great Oaks Charter School
3. Tutor Housing
4. Community Building (Leasing Office)
5. Railroad Avenue Building

Fig. 2 Picture of the courtyard where the Fuel Cell is to be located

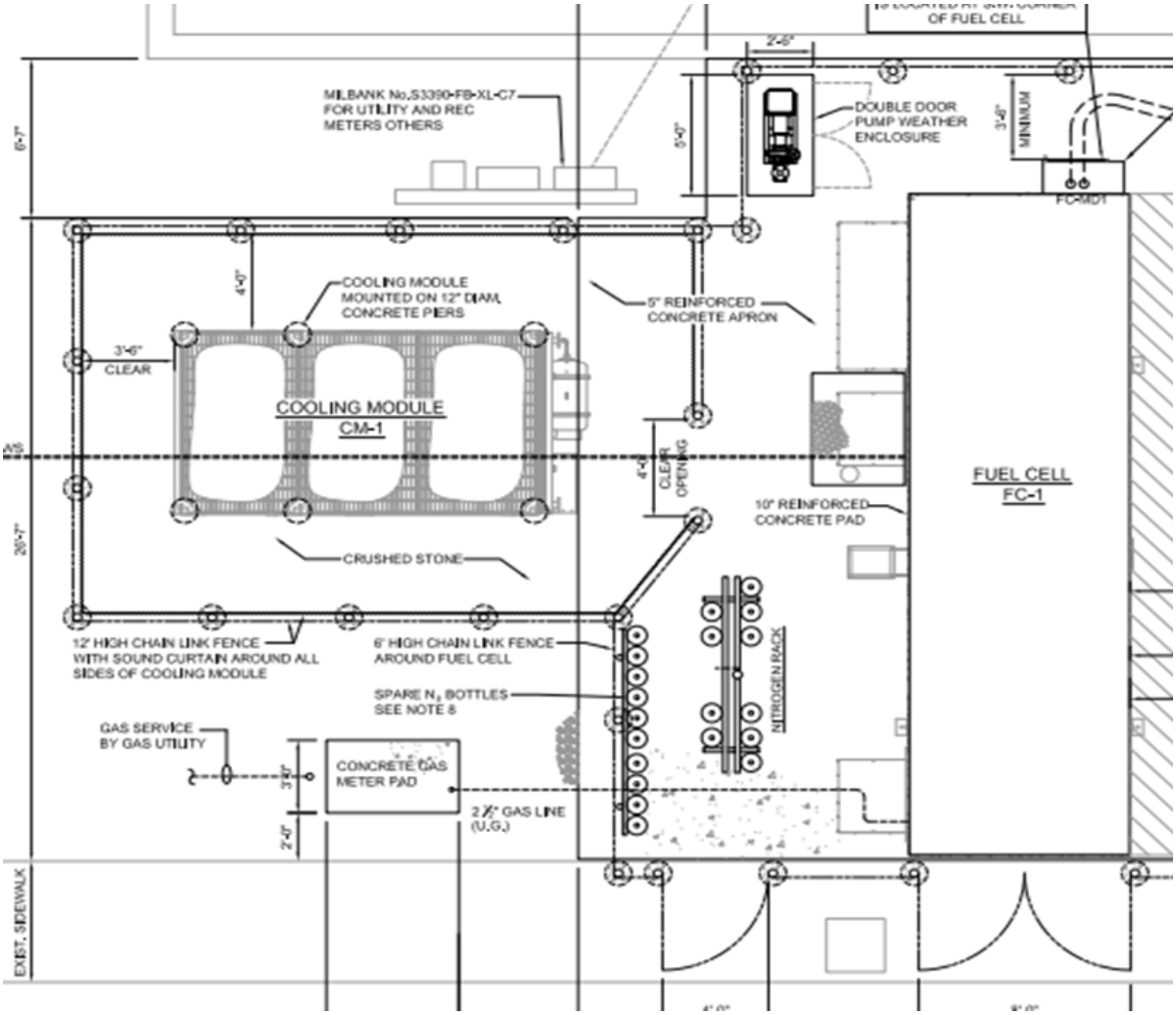

Fig. 3 Site Plan

Comments from the Council on Environmental Quality

STATE OF CONNECTICUT

COUNCIL ON ENVIRONMENTAL QUALITY

Susan D. Merrow
Chair

Keith Ainsworth

Alicea Charamut

David Kalafa

Lee E. Dunbar

Alison Hilding

Kip Kolesinskas

Matthew Reiser

Charles Vidich

Peter Hearn
Executive Director

RECEIVED
FEB 26 2020
Connecticut Siting Council

February 26, 2020

Melanie Bachman, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: PETITION NO. 1393 – Doosan Fuel Cell America, Inc. (Petitioner) petition for a declaratory ruling for the proposed construction, maintenance and operation of a 440-kilowatt customer-side fuel cell facility and associated equipment to be located at Cherry Street Lofts, 375 Howard Avenue, Bridgeport, Connecticut.

Dear Ms. Bachman:

The Council on Environmental Quality ("the Council") has reviewed the Petition for Declaratory Ruling noted above and offers the following comments for consideration by the Connecticut Siting Council. The Council supports the deployment of clean, distributed generation technologies at appropriate sites in Connecticut to reduce energy costs to consumers, increase energy reliability, and enhance environmental quality.

In the case of the proposed installation at the Cherry Street Lofts, the Petitioner has used the wrong standard in its noise analysis. The Petitioner states that the proposed fuel cell and cooling module are to be located in a courtyard "where the host property and adjoining properties within the courtyard are all zoned for mixed use industrial". The zoning for the property is not the standard that applies under State law. It is the use of the property, not its zoning that determines the noise standard. The website for Cherry Street Lofts in Bridgeport states that "Cherry Street Lofts will offer industrial style studio, one, two and three bedroom apartment homes". The use at the site, once renovated, will be residential. Consequently, the noise standard for a residential receptor is the correct standard to apply to this Petition.

The Regulations of Connecticut State Agencies Sec 22a-69-3.5 limits the noise from a Class C emitter (industrial) to a Class A receptor (residential) to 50 dBA during the day and 45 dBA at night. The Petition states "The City of Bridgeport noise level ordinance specifics a maximum of 70 dBA from an industrial emitter to an Industrial receptor." It further states that "The closest location zoned residential is 300 ft. from the proposed fuel cell location. Noise from the fuel cell area to this residential zoning will be significantly impeded by the buildings surrounding the courtyard", apparently overlooking the fact that the buildings which compose the courtyard will be residences too.

Based on the Petition's statement that "The fuel cell and associated cooling module is expected to operate at full power (440 kW), with a noise level in free field of below 65dBA at 40 feet", it does not appear that it meets the requirement for noise

79 Elm Street, Hartford, CT 06106
Phone: (860) 424-4000 Fax: (860) 424-4070
http://www.ct.gov/ceq

generation that is mandated by State regulation.

Noise diminishes with distance. The Petitioner should, at a minimum undertake a noise study to determine which of the units in the development will be effected by noise from the fuel cell and associated cooling unit and to assess the sound abatement measures that will be necessary for the combined fuel cell and cooling module to comply with the State Regulations.

Thank you for your consideration of these comments. Please do not hesitate to contact the Council if you have any questions.

Sincerely,

Peter Hearn,
Executive Director

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