STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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VIA ELECTRONIC MAIL

May 11, 2023

Kristen Grillo
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
Kristen.Grillo@bloomenergy.com

RE: **PETITION NO. 1503** - Bloom Energy Corporation declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a customer-side 750-kilowatt fuel cell facility and associated equipment to be located at Milford Hospital, 300 Seaside Avenue, Milford, Connecticut.

Dear Kristen Grillo:

The Connecticut Siting Council (Council) is in receipt of your correspondence of May 10, 2023, regarding compliance with Condition No. 4 of the Council's Declaratory Ruling issued on May 27, 2022 for the above-referenced facility. The correspondence includes a post-construction letter of compliance indicating that operation of the fuel cell complies with DEEP Noise Control Regulations, in accordance with Condition No. 4.

Therefore, the Council acknowledges that Condition No. 4 has been satisfied. This acknowledgment applies only to the condition satisfied by the May 10, 2023 correspondence.

Please be advised that deviations from the standards established by the Council in the Declaratory Ruling are enforceable under the provisions of Connecticut General Statutes §16-50u.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MB/RDM/laf

From: Kristen Grillo <Kristen.Grillo@bloomenergy.com>
Sent: Wednesday, May 10, 2023 11:18 AM
To: Fontaine, Lisa <Lisa.Fontaine@ct.gov>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>
Subject: PE1503 - Bloom Energy Fuel Cell Installation, Milford Hospital - Post Construction Letter of Compliance for Noise Control Regulations.

Good morning,

Per condition #4 cited in the Siting Council Declaratory Ruling Letter for Petition #PE1503, please find the attached Post-Construction acoustical sound study report confirming that current operation of the fuel cells comply
with DEEP Noise Control Regulations.

If you should have any questions or require further information, please don't hesitate to contact me.

Thank you for your time.

Kristen Grillo
Senior Permitting Specialist | East Coast Field Office
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Veneklasen Associates
Consultants in Acoustics | Noise | Vibration | AV | IT

May 8, 2023

Bloom Energy
4353 North 1st Street
San Jose, California 95134

Attention: **Brandon Leaverton | Supply Chain Specialist – Construction**

Subject: **Milford Hospital, 300 Seaside Ave, Milford, Connecticut**
Property Line Noise Measurement Summary
Veneklasen Project No. 4631-029

Dear Brandon:

Veneklasen Associates, Inc. (Veneklasen) was contracted to evaluate noise impact of proposed fuel cells for the subject project in Milford, Connecticut. This report includes the results of property line noise measurements to determine compliance with local municipal codes. This post-construction noise survey was conducted as a direct requirement from the Connecticut Sitting Council (CSC) for approval of this project. This report documents our findings.

Noise Criteria

The City of Milford, Connecticut does not have a defined noise ordinance. The State of Connecticut provides property line noise limits for various zoning types. Statutes Chapter 442 "NOISE POLUTION CONTROL", Section 22a-69-3.5 provides the following noise limits per zone type summarized below in Table 1. Specific zoning definitions are provided in Sections 22a-69-2.3, 22a-69-2.4, and 22a-69-2.5. In general, Class A is defined as residential land, Class B is defined as commercial land, and Class C is defined as industrial land.

Table 1. State of Connecticut Noise Limits

Emitter Class	Receptor			
	C	B	A (Day)	A (Night)
Class C Emitter	70 dB(A)	66 dB(A)	61 dB(A)	51 dB(A)
Class B Emitter	62 dB(A)	62 dB(A)	55 dB(A)	45 dB(A)
Class A Emitter	62 dB(A)	55 dB(A)	55 dB(A)	45 dB(A)

Additionally, Section 22a-69-3.6 states the following:

> *In those individual cases where the background noise levels caused by sources not subject to these Regulations exceed the standards contained herein, a source shall be considered to cause excessive noise if the noise emitted by such source exceeds the background noise level by 5 dBA, provided that no source subject to the provisions of Section 3 shall emit noise in excess of 80 dBA at any time, and provided that this Section does not decrease the permissible levels of the other Sections of this Regulation.*

Veneklasen assumes proposed fuel cells will run 24-hours per day; therefore, measurements were conducted during nighttime hours. There are both residential and commercial properties nearby the proposed fuel cells.

Measurement Results

Measurements at the site were conducted between the hours of 12AM and 3AM on Wednesday, April 26, 2023. Measurement locations compared to fuel cell locations and property lines are shown in Figure 1 below.

Veneklasen was unable to complete existing ambient (no fuel cell) noise levels at property lines because fuel cells were already operational and Veneklasen was informed that turning them off would be impossible. Fuel cell noise was audible at each adjacent property line; however, the dominant noise sources at each property line included both

traffic noise and, in some instances, noise from a mechanical room on the hospital property. Measurement results are summarized in Table 2 below.

Table 2. Property Line Measurement Results

Measurement Location	Property Line	Measured Total Noise Level, dBA	Applicable Noise Limit, dBA*
S1	27 Cricklewood Rd	48	45
S2	4 Lakeside Rd	47	45
	18 Cricklewood Rd		45
S3	262 Seaside Ave	51	55
S4	267 Seaside Ave	52	63
	271 Seaside Ave		63
	281 Seaside Ave		71
S5	N/A	63	N/A

*: Per VA Report1b, April 27, 2022.

As can be seen above, measured values at the S1 and S2 positions were above the allowable property line noise level limits; however, below Veneklasen will show that noise sources other than fuel cell noise dominate the noise measurements and that fuel cell contributions are compliant with noise ordinance allowances. Note that additional measurements were completed nearer the mechanical room (Location S5) to understand how loud this equipment was and to calculate how much this noise contributed to the values measured at positions S1 and S2.

Figure 1. Measurement Locations

As noted above, a combination of traffic noise, noise from nearby mechanical room, and fuel cell noise resulted in measurements at S1 and S2 exceeding allowable limits. Since it is impossible to measure fuel cell noise without existing ambient noise, the final fuel cell noise level results were calculated by subtracting the existing ambient noise

levels (traffic and mechanical equipment) from the total noise level. Nighttime traffic noise levels were taken from Veneklasen Report1b, dated April 27, 2022, and mechanical room noise levels were calculated based on the measured levels at position S5. Note that sound decibel levels are not arithmetically subtracted but are logarithmically subtracted. These results are also included in Table 3 below.

Table 3. Calculated Fuel Cell Property Line Noise Levels

Measurement Location	Calculated Nighttime Traffic Level, dBA	Calculated Mechanical Room Level, dBA	Total Measured Noise Level, dBA	Calculated Fuel Cell Level, dBA	Code Compliant?
S1	39	44	48	44	Yes
S2	41	38	47	45	Yes

As shown in the table above, fuel cell noise levels do not exceed municipal code thresholds and are therefore compliant as installed.

Summary

Veneklasen visited the project site to complete property line fuel cell noise level measurements to show compliance with State of Connecticut noise limits. At positions S1 and S2, total measured values exceeded State requirements; however, Veneklasen calculated fuel cell noise contributions at these positions by subtracting existing ambient noise levels from total measured noise (fuel noise plus existing ambient).

Calculated fuel cell noise levels are shown to comply with State requirements as installed. No further mitigation is required.

If you have any questions, please do not hesitate to call.

Sincerely,
Veneklasen Associates, Inc.

Kevin Patterson
Senior Associate

John LoVerde, *FASA*
Principal