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September 10, 2021

Melanie A. Bachman, Esq. Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Petition 1458 - Responses to CSC Interrogatories (Set 1)

Dear Ms. Bachman:

Homestead Fuel Cell 1, LLC ("HFC1") hereby submits to the Connecticut Siting Council ("Council") its responses to the Council's August 27, 2021 interrogatories (Set 1). An original and 15 copies of HFC1's responses will be hand delivered to the Council.

Should you have any questions regarding this filing, please do not hesitate to contact me.

Very truly yours,

Bruce L. McDermott

**Enclosure** 

Murtha Cullina LLP 265 Church Street New Haven, CT 06510 T 203.772.7700 F 203.772.7723

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-1: Petition page 17 states that "The closest residential property and structure is more than 300 feet to the southwest" of the facility, Figure A9 of Exhibit A shows a distance of 319 feet to the residential area southeast of the facility. Please clarify and provide the address and distance to the nearest residential property line.

A-CSC-1: Petition page 17 should state that the closest residential property and structure is more than 300 feet to the <u>southeast</u> not the southwest. The address of this property is 29 Baltimore Street, Hartford, Connecticut. The distance from the closest unit pad is approximately 319 feet to this residential property line. The distance from the outermost edge of the Site to this residential property line is approximately 282 feet. The distance from the outermost edge of the Site to the closest structure (a garage) at this address is approximately 286 feet.

Homestead Fuel Cell 1, LLC Witness: Derek Phelps

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Q-CSC-2: Did HFC1 receive comments from the abutters notified as shown in

exhibit C-1 of the petition?

A-CSC-2: HFC1 has not received any comments from the abutters.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-3: Are there provisions for any extension of time in the Power Purchase Agreement (PPA)? Is there an option to renew at the end of the 20-year term?

A-CSC-3: There are no provisions in the PPA for extension of time. There is no option to renew at the end of the 20-year term.

Witness: Larry Hoffman Homestead Fuel Cell 1, LLC

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Q-CSC-4: What is the voltage of the Northwest Hartford substation?

While the Project's input to the Northwest Hartford substation is 23kV, the voltage of the Northwest Hartford substation itself is 115kV. A-CSC-4:

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-5: Does the underground interconnection plan involve going under the Amtrak railroad tracks? If so, what permits are required from state and federal agencies? If so, please describe the construction method to be employed.

A-CSC-5: No, at this time the proposed connection path will go above-ground and along the street as shown in the figure below:



Homestead Fuel Cell 1, LLC Witness: Mark Benedict

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Q-CSC-6: Please provide details of the calculation that resulted in the 19,169 tons of CO<sub>2</sub> per year referenced on page 22 of the Petition. Is there a more recent data available for the CO<sub>2</sub> footprint of utility grid power (1,501 lbs. of CO<sub>2</sub> per MWh) referenced on page 22 of the Petition?

A-CSC-6: The calculation is made by multiplying the difference between the non-baseload US grid and the SureSource 3000 CO2 emission factors (1,501 – 980 = 521 lb/MW-hr), times the nameplate generating capacity of the HFC1 facility (8.4 MW), times 8,760 hour/year and then dividing that number by 2,000 lb/ton: 521 x 8.4 x 8,760 / 2,000 = 19,169 tons CO2/year.

The 2019 (Feb. 2021) USEPA EGRID non-baseload CO2 emissions factor for the U.S. grid is 1,420.2 lb. CO2/MW-hr. The corresponding avoided CO2 emissions using this more recent 2019 data point is 16,196 tons CO2 per year.

Witness: Larry Hoffman Homestead Fuel Cell 1, LLC

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Does the PPA include the transfer of capacity to Eversource and UI or will HFC1 participate in the ISO-NE FCM market? Q-CSC-7:

It is the intension of HFC1 to sell capacity in the FCM. A-CSC-7:

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-8: Footnote 3 on page 9 of the Petition is missing. Please provide the

information that was intended for footnote 3.

A-CSC-8: No footnote was intended. The footnote marker should have been

deleted.

Homestead Fuel Cell 1, LLC Witnesses: Larry Hoffman

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Q-CSC-9: What is the distance of the closest facility associated equipment (e.g. Switch, switch gear and gas supply meter) to the Route 44 highway? How would the proposed facility associated equipment be protected from a

traffic accident?

A-CSC-9: The nitrogen storage tank is the closest facility associated equipment located approximately 290 feet from Route 44. This equipment is sufficiently set back from Route 44 to avoid any traffic accidents. As for accidents that may occur on Homestead Avenue, the gas supply metering equipment is closest facility associated equipment. This equipment will be set back sufficiently at approximately 40 feet from Homestead Avenue behind the security fencing, and surrounded by bollards for additional protection.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-10: Referencing the Exhibit A Site Plan, will bollards surround the switch, switch gear and gas supply metering pad on all sides? What appear to be bollards seem to have been cut off or eliminated due to the movement of the fence line (depicted as a bold red line). Please explain.

A-CSC-10: Bollards will surround the switch, switch gear and gas supply metering pad on all sides. Please see Exhibit CSC-10.

Homestead Fuel Cell 1, LLC Witness: Mark Benedict

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Q-CSC-11: Referencing the Egress Pathways Plan in Exhibit E – Emergency Response Plan, does this incorporate the City's request for greenspace? If not, please provide an updated plan.

A-CSC-11: Although the greenspace plan has not been finalized with the City, HFC1 does not anticipate that the Egress Pathways Plan presented in Exhibit E will be materially altered as a result of any subsequent discussions with the City in connection with finalizing the greenspace plan.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-12 What is the distance of the proposed facility fence line and fuel cell units to the railroad tracks? How would the proposed fuel cell facility be protected from a train derailment?

A-CSC-12 The distance of the proposed facility fence line and fuel cell units to the railroad tracks is approximately twelve (12) feet. It should be noted that these railroad tracks are not currently in use. Should the railroad track become operational, the fuel cell system will have redundant manual and automatic gas shut off features in the unlikely event of a derailment.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-13: Would moving the fence line for the greenspace move the facility closer to the railroad tracks? Could the facility be shifted further east to increase the distance from the railroad tracks?

A-CSC-13: No, moving the fence line back for the greenspace does not move the fuel cell systems closer to the railroad tracks. The fuel cell systems are placed in the location (more western) that takes into consideration safety concerns for truck and equipment ingress and egress during development and maintenance given the traffic flow of the surrounding area.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-14: What is the general slope/gradient of the project area?

A-CSC-14: The Site unit pads are all at the same elevation. Outside of these unit

pads, the rest of the site will have sloping at approximately 3 percent

gradient.

Homestead Fuel Cell 1, LLC Witness: Anthony Hood

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Q-CSC-15: Petition page 9 references minor upgrades to the substation, please describe the nature of these upgrades.

A-CSC-15: The upgrades to Eversource' Northwest Hartford substation will be:

- o Transfer trip
- o Primary cable installation and removal of old facilities
- o ISG Switchgear 2-way auto pair
- o Pad mounted primary metering cabinet
- o Enlargement of existing Eversource manhole on Homestead Avenue

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-16: Petition page 24 states the nearest wetlands are 300 feet southeast across the railroad corridor. Is the correct direction southwest across the railroad corridor? If so, is any portion of the electrical interconnection within or near the wetland?

A-CSC-16: The Petition should state "southwest" rather than "southeast". No portion of the proposed interconnection path will be within or near wetlands.

Homestead Fuel Cell 1, LLC Witness: Mark Benedict

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Q-CSC-17: Will the operation of the fuel cell facility produce any type of vapor plume or cloud? If so, is there a potential for icing in colder temperatures and/or a potential to interfere with air navigation? If so for both, are there any mitigation measures?

A-CSC-17: FuelCell Energy's experience is that the fuel cell plant exhaust stream does not produce any visible emissions, including vapor plumes from condensing water. Factors that contribute to the avoidance of any visible vapor plume include the relatively high temperature of the exhaust stream (in the absence of waste heat recovery to lower the exhaust temperature) and the properly sized and oriented exhaust stack that provides sufficient upward vertical velocity to the exiting exhaust stream and promotes proper atmospheric plume dispersion. Plume icing mitigation measures are not warranted.

Homestead Fuel Cell 1, LLC Witness: Anthony Hood

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Q-CSC-18: What is the quantity of oil in the transformers? Will the transformers have secondary containment?

A-CSC-18: Each of the three SureSource 3000 plants has a small transformer to power its own mechanical balance of plant. These transformers each hold approximately 125 gallons of Evirotemp FR3 less-flammable dielectric fluid. This soybean oil-based transformer fluid is 100% biodegradable and safer than traditional silicone type transformer fluids. These units will not be equipped with secondary containment.

Homestead Fuel Cell 1, LLC Witness: Mark Benedict

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Q-CSC-19: Page 12 of the Petition states nitrogen will be stored on-site. Are nitrogen tank leaks or ruptures addressed in the Emergency Response Plan? If not, how would HFC1 respond to any leaks or spills?

A-CSC-19: The liquid nitrogen storage tank is an ASME code stamped vessel and is leased from a nitrogen supplier. Contact information for the nitrogen supplier is included in the Emergency Response Plan. Should a nitrogen tank leak or rupture occur, the nitrogen supplier would be contacted immediately to address the situation and to repair the tank.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-20: Please provide a detailed site plan for the proposed facility including but

not limited to, the dimensions and location of the proposed fuel cell facility, gas-fired start-up burners, cooling module, concrete pads, fence designs

and bollards and utility connections.

A-CSC-20: Please see the updated site plan in CSC-10 above.

Homestead Fuel Cell 1, LLC Witness: Mark Benedict

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Q-CSC-21: Page 12 of Exhibit D – Facility Sound Assessment – states, "Mitigation measures are engineered into the equipment configuration to keep the fuel cell facility cumulative sound within applicable standards." What mitigation measures are engineered into the equipment configuration?

A-CSC-21: The primary sound emission mitigation measures engineered into the equipment are the design considerations associated with the plant layout (largest sound generating devices placed in the center of the plant and shielded by other large, quiet objects), vibration isolation of major rotating equipment pieces and partial sound enclosure of the main process air blower. The incorporation of these measures into the plant design results in an equipment configuration that lowers receiver sound levels below what would otherwise be experienced without the inclusion of such measures.

Homestead Fuel Cell 1, LLC Witness: Derek Phelps

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Q-CSC-22: On pages 7- 8 and 18 of the Petition, HFC1 indicates it is working with the City regarding aesthetic concerns, which may include installation of greenspace, fencing, tree cover or other landscaping. What is the status of coordination with the City and what are the details of the visual mitigation measures?

A-CSC-22: As indicated in the Petition, HFC1 has met with the City to discuss options for decorative fencing and aesthetic considerations, especially the street-facing portion of the project alongside Homestead Avenue, and those discussions have been ongoing. While no specific plan has been finalized between HFC1 and the City, pending the Siting Council review, HFC1 remains committed to working with the City in a respectful and collaborative manner.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-23: How would the fuel cell units be delivered to the site, by truck or rail?

A-CSC-23: The fuel cell units will be delivered by truck.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-24: Has HFC1 consulted with the natural gas utility regarding the adequacy of

the pipeline to serve the fuel cell facility or whether upgrades would be

required?

A-CSC-24: The existing pipeline is not adequate and HFC1 is working with CNG to

have a new upgraded pipeline installed for the Project.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

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Q-CSC-25: Page 7 of the Petition indicates the proposed facility would be enclosed on three sides by an approximately eight-foot high chain link fence and the front area would include a form of decorative fencing. Why is fencing proposed for only three sides? Does the proposed chain link fence comply with the NEC? Would the decorative fencing comply with the NEC?

A-CSC-25: Fencing is proposed for all four sides of the facility. The chain-link fence will be on the north, south and west sides of the Site and the east side of the Site (i.e., the Homestead Avenue abutting side) will use some form of decorative fencing to be mutually determined with the City. The proposed fencing will be properly grounded per National Electrical Code (NEC) standards.

Homestead Fuel Cell 1, LLC Witness: Larry Hoffman

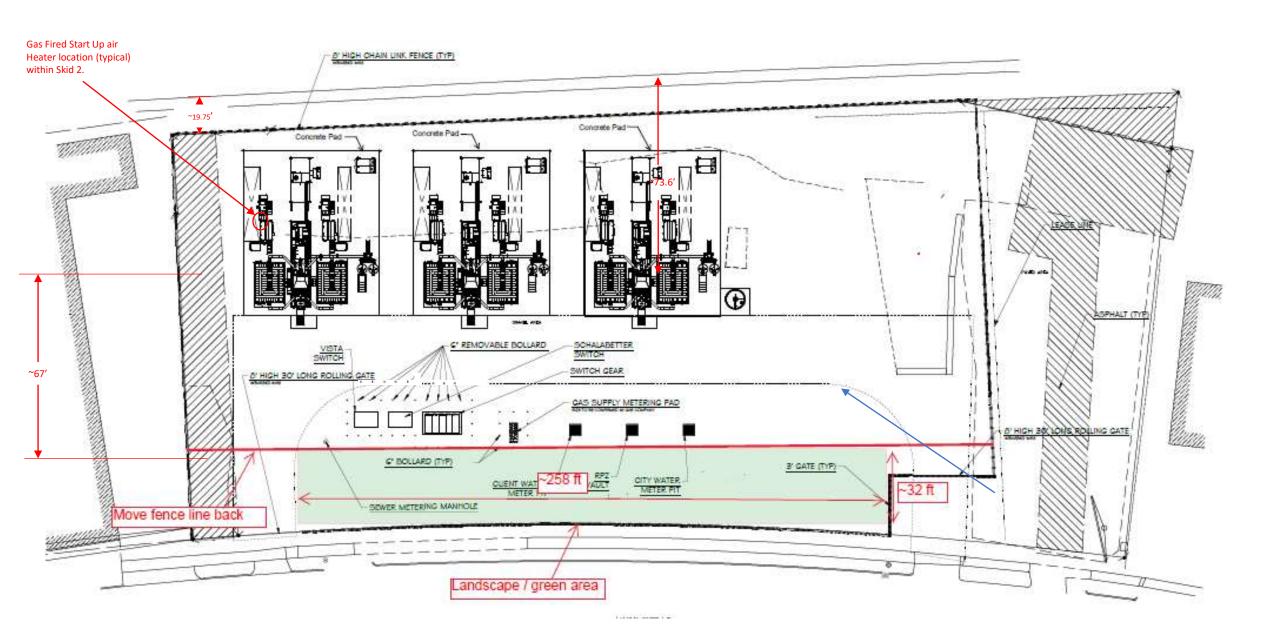
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Q-CSC-26: What safety/security measures are proposed to protect the fuel cell facility

from trespassing, theft, vandalism and/or sabotage?

A-CSC-26: The proposed perimeter fencing will be approximately 8' high with a curved section at the top providing the anti-climb feature. The Project fence will be consistent with the National Electric Safety Code and National Electric Code. Additionally, the Project will have a locked gate

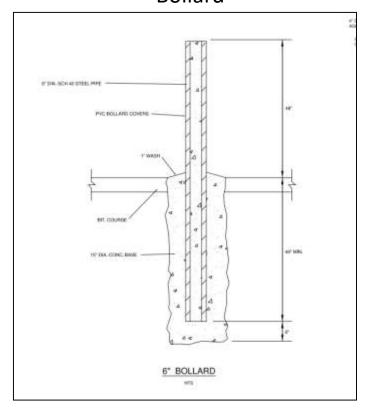
and limited access for authorized personnel only.

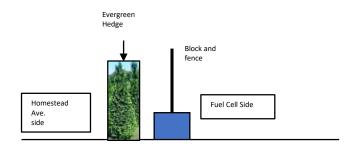


Rendering EXHIBIT CSC-10



Bollard





Fence Facing Homestead Ave.

