



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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### VIA ELECTRONIC MAIL

June 11, 2019

Henry Sire, Esq.  
FuelCell Energy, Inc.  
3 Great Pasture Road  
Danbury, CT 06810

RE: **PETITION NO. 1372** – Derby Fuel Cell, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 14.0-megawatt fuel cell facility, associated equipment and related site improvements to be located at 200 Roosevelt Drive, Derby, Connecticut.

Dear Attorney Sire:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than July 1, 2019. To help expedite the Council's review, please file individual responses as soon as they are available.

Please forward an original and 15 copies to this office, as well as send a copy via electronic mail. In accordance with the State Solid Waste Management Plan and in accordance with Section 16-50j-12 of the Regulations of Connecticut State Agencies the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

**Please be advised that the original and 15 copies are required to be submitted to the Council's office on or before the July 1, 2019 deadline.**

Any request for an extension of time to submit responses to interrogatories shall be submitted to the Council in writing pursuant to §16-50j-22a of the Regulations of Connecticut State Agencies.

Sincerely,

Melanie Bachman  
Executive Director

MB/MP

c: Council Members  
Dmitriy Kamenetskiy, Project Manager, FuelCell Energy, Inc.  
Jennifer D. Arasimowicz, Esq., FuelCell Energy, Inc.

**Petition No. 1372**  
**Derby Fuel Cell, LLC**  
**200 Roosevelt Drive**  
**Derby, CT**  
**Interrogatories**

**General Questions**

1. Would the proposed facility be a “customer-side distributed resources” facility or a “grid-site distributed resources” facility pursuant to Connecticut General Statutes §16-1?
2. Referencing page 2 of the Petition, provide the date on which FuelCell Energy, Inc. (FCE) submitted its proposal in response to a Connecticut Department of Energy and Environmental Protection (DEEP) Request for Proposals (RFP). On what date did DEEP select this fuel cell project in its RFP? What percentage of the electrical energy and/or renewable energy credits (RECs) would be sold to The Connecticut Light and Power Company d/b/a Eversource Energy and The United Illuminating Company (UI) per the power purchase agreements?
3. Was the project selected for the LREC/ZREC Program?

**Construction Specifications Questions**

4. Provide a clear copy of Figure 1 and Drawing Nos. C-001 through C-004 from the Petition, and depict the wastewater connection on Drawing No. C-004. Either 8.5” x 11” or 11” x 17” could be used for the drawing sizes.
5. Referencing Drawing No. C-004, has the Petitioner determined how the natural gas connection would cross the existing bridge to reach the existing natural gas main on Route 34?
6. Please provide a specifications sheet for the FCE SureSource 3000 fuel cell, or as applicable.
7. Please respond to the following regarding the fuel cell exhaust stacks:
  - a) How tall would the exhaust stack of the SureSource 3000 fuel cell be in feet above the top of concrete (TOC) pad?
  - b) Would there be a total of five stacks, i.e. one per fuel cell unit?
  - c) Would the exhaust stack be the tallest feature on each fuel cell unit?
  - d) If the exhaust stack is not the tallest feature for the proposed project, identify the tallest feature and provide its height in feet above the TOC.
  - e) Figure 4 of the Facility Sound Assessment depicts the SureSource 3000 fuel cell unit as having a vertical exhaust stack. Figure 5 appears to show a horizontal (side) stack exit/outlet. Which is correct? Does that materially affect the noise study?
8. Referencing Figure 1 of the Petition, the fuel cells would be located on concrete pads, and the center of the rectangular project footprint (between the fuel cell pads) would be paved. For the remaining areas of the fenced project footprint, would it also be paved, or would it have a different finish, e.g. gravel, traprock, concrete, etc.?

9. Page 4 of the Petition notes that, “The Project will be elevated approximately six feet above grade to account for the 100-year floodplain and zone elevation.”
- Please provide a FEMA flood map showing the proposed facility location and flood zone designation.
  - Please estimate the existing ground elevation at the site.
  - Please provide the 100-year flood elevation.
  - Please provide the 500-year flood elevation.
  - Please estimate the proposed elevation of the top of the concrete pads (i.e. TOC elevation).
  - How many feet above the 100-year flood elevation would the TOC be?
  - How many feet above the 500-year flood elevation would the TOC be (if any)?
  - Could the proposed facility be installed to one-foot above the 500-foot flood elevation? If so, explain how this can be accomplished. If not, please indicate why not.
  - What is the additional cost to install the facility one foot above the 500 year flood elevation?
10. Page 11 of the Petition note that, “Limited excavation of soils will be required for the installation of the project.” Approximately how many cubic yards of cut (and fill if applicable) would be required to construct the project? Would any net cut material be reused on-site or removed from the site and hauled away?

### **Water Consumption/Wastewater Discharge Questions**

11. Referencing page 2 of the Emergency Response/Safety Plan, the water treatment system includes a 35-gallons per minute (gpm) reverse osmosis/electro-deionization system. However, page 11 of the Petition notes that the proposed project would have a water consumption rate of about 65,000 gallons per day (or roughly 45 gpm). Please reconcile these two numbers.
12. Referencing page 11 of the Petition, the total water consumption and discharge for the proposed project would be approximately 65,000 gallons per day (gpd) and 32,500 gpd, respectively. Would this increase during water treatment skid (WTS) backflush? By how much would it increase the consumption and discharge rates, and how often would WTS backflush typically occur?

### **Electrical Interconnection Questions**

13. How would the proposed facility interconnect to UI’s Indian Well Substation? For example, would it be an all-underground connection to the substation? Would it be a distribution-level connection, e.g. 13.8-kilovolt?
14. Was a system impact study or interconnection study (as applicable) performed to see if substation could accommodate the proposed 14 MW? Would any modifications need to be performed by UI at the substation to accommodate this interconnection?

### **Facility Operation and Maintenance Questions**

15. Page 4 of the Petition notes that the facility “...will generate a nominal 14.0 MW of Connecticut Class I renewable energy that will be exported to the utility grid.” Would any of the power be used to provide baseload or backup power (or both) for IDA Properties, Inc. (or another nearby customer), or would all 14.0 MW be exported to the grid? If used to serve a customer’s building load, what percentage of the building’s load would the proposed fuel cell facility provide?
16. Would the proposed facility be part of a microgrid, or could it potentially be upgraded to be part of a microgrid in the future?

17. Would the proposed fuel cell shut down in the event of a power outage, and would it automatically restart when power is restored?
18. Would any waste heat from the fuel cell be used for internal building use (e.g. for IDA Properties, Inc. or another customer) such as to provide or supplement domestic heating and/or hot water?
19. Explain how nitrogen would be used at the proposed facility. For example, would it be used for cooling purposes in a closed-loop system, or would it be used as an inert gas for emergency shutdown (ESD) purposes? If used for ESD purposes, how would the nitrogen be used? For example, would the nitrogen mix with the natural gas inside the fuel cell as a safety measure during ESD?
20. What is the operational life of the facility? Does the fuel cell media have to be changed? If so, at what intervals?
21. If the proposed facility is approved, approximately when would construction commence, and when would it be expected to be completed and operational? What are the expected typical work hours and days of the week that construction would occur?
22. Provide a decommissioning plan for the proposed facility.

#### **Facility Safety Questions**

23. Please identify media to be used for pipe cleaning procedures at the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.
24. In addition to National Fire Protection Association (NFPA) 853, are there any other NFPA or other codes and standards apply to fuel cell construction, installation and/or modifications?
25. What is the distance and direction of the proposed facility to the nearest airport? Did the petitioner provide notification to the Federal Aviation Administration regarding the proposed fuel cell facility?

#### **Environmental Questions**

26. Provide the number of trees six inches in diameter or greater that would be removed for installation of the proposed facility, if applicable.
27. Provide the distance and direction to the nearest wetland. Provide the distance and direction to the nearest watercourse. Would erosion and sedimentation controls be installed per the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*, as necessary to protect such resources?
28. Is the proposed facility within a Department of Energy and Environmental Protection-designated Aquifer Protection Area?
29. Referencing page 11 of the Petition, has the Petitioner submitted an application for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (General Permit) to the DEEP? If no, approximately when would such General Permit application be filed with DEEP? And would a Stormwater Pollution Control Plan be part of the General Permit application filing? Explain.

30. Figure 1 of the Petition depicts on-site lighting, e.g. single-pole light and double-pole light. Would such lighting be on at night and during inclement weather, or only when work is being performed? Would such lighting affect nearby properties?
31. Provide a table showing state criteria thresholds and projected emissions from the proposed facility for all greenhouse gases listed in the Regulations of Connecticut State Agencies Section 22a-174-1(49) with and without the use of waste heat (as applicable), taking into account cumulative emissions associated with the five units.
32. Provide information regarding available technologies and/or mitigation techniques to reduce greenhouse gas emissions from the proposed facility.
33. Is methane (CH<sub>4</sub>) broken down to zero in the reforming process? Is there some small amount of CH<sub>4</sub> emissions that would still occur?
34. Natural gas contains an odorant. Please submit a desulfurization plan narrative for the proposed fuel cell facility containing the following information:
  - a) Chemical reaction overview concerning what substances are produced from the desulfurization process, as well as plans for their containment and transport;
  - b) How much solid sulfur oxide would result from the desulfurization process, and methods and locations for containment, transport, and disposal;
  - c) Whether any of these desulfurization substances are considered hazardous, and if so, plans for the containment, transport, and disposal of hazardous substances;
  - d) Anticipated method of disposal for any other desulfurization substances; and
  - e) Whether any gaseous substances resulting from desulfurization can be expected to vent from the fuel cells, as well as the applicable DEEP limits regarding discharge of these gases.

#### **Agricultural Questions**

35. Is any portion of the project on prime farmland soils? If so, what is the area of prime farmland soils that would be impacted by the proposed project?

#### **Cost Questions**

36. Estimate the total cost of the proposed project. Break down the total cost into categories that the Petitioner deems appropriate.