



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

February 26, 2024

Bruce McDermott, Esq.
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New Haven, CT 06510-1220
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RE: **PETITION NO. 1606** - Endurant Energy petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 4.9-megawatt AC battery energy storage facility located at 65 and 105 Vine Street, Middletown, Connecticut, and associated electrical interconnection. **Council Interrogatories to Petitioner.**

Dear Attorney McDermott:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than March 15, 2024. Please submit an original and 15 copies to the Council's office and an electronic copy to siting.council@ct.gov. 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 requests 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 March 15, 2024 deadline.

Copies of your responses are required to be provided to all parties and intervenors listed in the service list, which can be found on the Council's website under the "Pending Matters" link.

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

MAB/IN

c: Service List dated January 3, 2024

**Petition No. 1606
Endurant Energy
65 and 105 Vine Street
Middletown, Connecticut**

**Interrogatories
February 26, 2024**

Project Development

1. Has Endurant Energy (Endurant) received any comments since the Petition was submitted to the Council? If yes, summarize the comments and how these were addressed.
2. Referencing Petition page 4, what Energy Storage Solutions Program (ESSP) incentives apply to the project?

Proposed Site

3. Submit a map clearly depicting the boundaries of the battery energy storage facility (BESF) site and the boundaries of the host parcel(s). Under Regulations of Connecticut State Agencies (RCSA) §16-50j-2a(29), “Site” means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located.
4. Has the property owner expressed any concerns or requested any specific requirements related to decommissioning or site restoration at the end of the project’s useful life? If so, please describe.
5. Referencing Petition p. 10, it states the existing defunct University utility infrastructure located at the southern end of the 105 Vine Street parcel will be demolished and removed.
 - a. Who would be responsible for its demolition and removal?
 - b. At what point in the BESF construction process would the defunct infrastructure be demolished and removed?
 - c. Could delay in demolition and removal of the defunct infrastructure adversely impact development of the BESF site? Explain.
6. Referencing Petition p. 25 and Appendix C -Zoning Map, what is the length and width of the existing access drive to the point where it would reach the BESF?
7. Referring to Figure 3, provide the distance and direction of the facility from the nearest publicly accessible area.
8. How would the BESF impact parking at the site both during and after construction? How would Endurant manage the parking impacts?
9. Referencing Petition p. 10, provide the distance of the facility from the Indian Hill Cemetery, the nearest dormitory, and the nearest academic building.
10. Provide the size of the fenced compound area.
11. Provide the distance, direction and address of the nearest off-campus residential property line to the proposed facility.

12. Provide the distance, direction and address of the nearest off-campus residential structure to the proposed facility.

Energy Output

13. What is the approximate percentage of Wesleyan University's annual electric load that would be served by the BESF?
14. How long will it take for the BESF to attain full output from when it is dispatched?
15. What is the cumulative efficiency of the discharge output (e.g.- the BESF can only discharge 90% of its stored capacity)?
16. What storage capacity losses are anticipated for ambient temperatures below freezing?
17. Would the BESF utilize power for cooling and heating of the battery packs? If yes, would this power source be from stored energy or from the local distribution system?
18. Referencing Petition p. 6, it states the BESF will be connected behind the customer's electric utility meter, which will allow the facility to run on battery power during peak demand time. It further states the BESF will operate in parallel with the grid and can also export power into the utility distribution system, during peak demand times. During peak demand times does the grid or the University utilize the BESF output?
19. Does the University operate at full capacity on weekends? If no, would the BESF be dispatched to export excess power to the grid?
20. Referencing Petition pp. 21-22, assuming favorable energy prices, what is the minimum time it would take the BESF to fully recharge after a full 9.8MWh AC discharge?

Interconnection

21. Referencing Petition p. 15, what is the status of the interconnection agreement with Eversource? Is it anticipated the battery manufacturer/model will change based on the interconnection agreement?
22. Referencing Petition p. 14, provide the distance from the facility to the utility interconnection point.
23. Referencing Petition p. 16, what is the length of the proposed underground electrical interconnection?

Public Safety

24. Referring to Petition Appendix G, provide the estimated sound levels from BESF operation at the nearest residential structure.
25. Referencing Petition Appendix G – Sound Assessment, will the system generate noise during charging of the facility, discharge of the facility, neutral conditions (i.e. neither charging nor discharging), or all three? Was the modeling performed for the worst-case scenario, and does such scenario also take into account any fans for the cooling system? Explain.

26. Provide the design specifications of the proposed fence. Did Endurant consider an anti-climb design?
27. Would bollards be used to protect the BESF from being accidentally struck by a vehicle?
28. Is a gap proposed between the bottom of the fence and grade? What animal deterrents are in place for small animals, such as nesting birds, chewing rodents, etc.?
29. Referencing Petition p. 19, a battery fire would be self-extinguishing. What is the typical duration of a battery fire before it self-extinguishes? If one battery caught fire, can it easily spread to adjacent batteries? Explain.
30. Referencing Petition p. 28, when and what type of testing would be conducted on the BESF exhaust fan/sensors, and smoke, thermal and gas detectors prior to installation at the site?
31. Referencing Petition Appendix A, a lithium-ion phosphate safety data sheet is provided. The sheet states the battery may burst and release hazardous decomposition products when exposed to a fire situation. If a battery burst,
 - a. would smoke from the fire be considered hazardous and require notification to local authorities?
 - b. would smoke require area residences to stay in place or evacuate? If yes, who would determine if these actions are necessary?
32. Would Endurant dispatch personnel to the BESF in the event of a fire? Where would Endurant personnel be located that can respond to site emergencies?
33. Petition pp. 25-26 states explosion risk would be minimized by exhaust fans/sensors. Are these features susceptible to fire and subject to failure? Are they within a fire enclosure?
34. What explosion mitigation system is more effective, vent panels or an exhaust system? Explain.
35. Referencing Petition Appendix E, the air-cooling refrigerant safety data sheet states refrigerant and the storage cylinders could be explosive under certain conditions. Would a battery fire or other fire at the site potentially cause the refrigerant or storage cylinders to explode?
36. Referencing Petition Exhibit E –a transformer oil safety data sheet is provided.
 - a. How much oil is contained within the transformer?
 - b. Are there alarms (such as low-level oil alarms) that can alert personnel of a leak? If not, how would a leak be detected?
 - c. Do the transformers have a leak containment system? If yes, describe.

Environmental Effects and Mitigation Measures

37. Provide the acreage of tree clearing, if any, required to develop the site.
38. Have drainage characteristics of the proposed site been evaluated to ensure water will not pool around the BESF? Where would stormwater be directed?
39. Referencing Petition p. 23, has Wesleyan expressed a preference for a fence design or other type of screening, including, but not limited to, use of privacy slats or installation of adjacent landscaping?

40. Submit photographic site documentation with notations linked to the site plans or a detailed aerial image that identify locations of site-specific and representative site features. The submission should include photographs of the site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features including, but not necessarily limited to, the following locations as applicable:

For each photo, please indicate the photo viewpoint direction and stake or flag the locations of site-specific and representative site features. Site-specific and representative site features include, but are not limited to, **as applicable**:

1. wetlands, watercourses and vernal pools;
2. forest/forest edge areas;
3. agricultural soil areas;
4. sloping terrain;
5. proposed stormwater control features;
6. nearest residences;
7. Site access and interior access road(s);
8. utility pads/electrical interconnection(s);
9. clearing limits/property lines;
10. mitigation areas; and
11. any other noteworthy features relative to the Project.

A photolog graphic must accompany the submission, using a site plan or a detailed aerial image, depicting each numbered photograph for reference. For each photo, indicate the photo location number and viewpoint direction, and clearly identify the locations of site-specific and representative site features show (e.g., physical staking/flagging or other means of marking the subject area).

The submission shall be delivered electronically in a legible portable document format (PDF) with a maximum file size of <20MB. If necessary, multiple files may be submitted and clearly marked in terms of sequence.

Facility Construction

41. Referring to Petition p. 17 would any excess cut and fill material be removed from the site or deposited on the site?
42. Provide detailed site plans with notes/plans for site construction and environmental mitigation.

Facility Maintenance/Decommissioning

43. When does Endurant anticipate an Operations and Maintenance Plan for the proposed facility will be available?
44. Referencing Petition pp. 15 and 28, please provide the following information:
- a. What is the anticipated annual degradation of battery storage capacity?
 - b. At what remaining battery capacity is replenishment recommended?
 - c. What is the estimated cost of replenishment?
45. What minimum snow depth would require removal within the BESF compound?