



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

July 21, 2023

Lee D. Hoffman, Esq.  
Pullman & Comley LLC  
90 State House Square  
Hartford, CT 06103-3702  
[lhoffman@pullcom.com](mailto:lhoffman@pullcom.com)

RE: **PETITION NO. 1581** – KCE CT 8, 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 4.9-megawatt AC battery energy storage facility located at 44 Skinner Street, East Hampton, Connecticut, and associated electrical interconnection.

Dear Attorney Hoffman:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than August 11, 2023. Please submit an original and 15 copies to the Council's office and an electronic copy to [siting.council@ct.gov](mailto: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 August 11, 2023 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,

A handwritten signature in black ink, appearing to read "Melanie Bachman".

Melanie Bachman  
Executive Director

MB/MP

c: Service List dated June 29, 2023

**Petition No. 1581**  
**KCE CT 8, LLC**  
**44 Skinner Street, East Hampton, Connecticut**

**Interrogatories**  
**July 21, 2023**

**Project Development**

1. Has KCE CT 8, LLC (KCE) received any comments since the Petition was submitted to the Council? If yes, summarize the comments and how these were addressed.
2. If the project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s)?
3. What is the estimated cost of the project? How are costs recovered? Is the energy being purchased at market rates?
4. Referencing page 2 of the Petition, was the project selected for the state Energy Storage Solutions Program? If yes, when was the project selected?
5. What is the term of the agreement for KCE to provide energy storage, and with which entity? If the facility operates beyond the terms of such agreement, will KCE decommission the facility or seek other revenue mechanisms?
6. If KCE transfers the facility to another entity, would KCE provide the Council with a written agreement as to the entity responsible for any outstanding conditions of the Declaratory Ruling and quarterly assessment charges under CGS §16-50v(b)(2) that may be associated with this facility, including contact information for the individual acting on behalf of the transferee?

**Proposed Site**

7. Submit a map clearly depicting the boundaries of the battery energy storage facility 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.
8. 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.
9. What are the benefits of the proposed site location? For example, is the proposed site located within a “load pocket” area or on the “grid edge”?
10. Referencing Figure 3, ALTA/NSPS Land Title Survey and Sheet C-2.0, would KCE share the existing access drive for the solar facility site off Route 196/Skinner Street? What is the length and width of the existing access drive to the point where it would turn on the proposed access drive for the battery energy storage facility?

11. Referencing Figure 3, ALTA/NSPS Land Title Survey and Sheet C-20, what is the length of the proposed 24-foot wide access drive for the battery energy storage facility? Is the turning radius and vehicle passage area from the existing access drive to the proposed access drive sufficient for construction vehicles?

### **Energy Output**

12. How will the facility be dispatched and by whom?
13. When would the facility be dispatched (actively and passively) and for what duration?
14. What distribution system benefits (ex. resiliency of critical infrastructure, reliability of the electric system, etc.) would be provided by the facility? How does the facility meet the objectives of the state Energy Storage Solutions program?
15. Is the facility required to reserve any battery storage capability for backup power? Where would the backup power be used and by whom?
16. Can the facility operate between 0 and 4.9 MW, or would each module be dispatched based on need?
17. How long will it take for the facility to obtain full output from when it is dispatched?
18. How long would the facility typically take to fully recharge after a full 19.6 MWh AC discharge? Would the facility recharge during off-peak hours? Explain.
19. Would the proposed battery energy storage facility be electrically independent from the approved solar facility on the host parcel? In other words, would the battery energy storage facility recharge using grid power from the distribution line irrespective of the solar facility output? Explain.
20. Is the 4.9 MW AC output based on the point of electrical interconnection?
21. Referencing Petition p. 4, the facility would have a maximum export capacity of 4.9 MW with a four-hour duration allowing a maximum delivery of 19.6 MWh. The 12 proposed battery containers have an energy storage capability of 2.752 MWh each or approximately 33.024 MWh in total. Is the remaining balance of approximately 13.424 MWh a reserve storage, due to electrical losses, to prevent a full depletion of the batteries or other reason(s)? Explain.
22. Referencing Petition pp. 2, 3 and 10, KCE would participate in the ISO-NE Forward Capacity Market, and the facility would have an in-service date in March 2026. In which auction(s) and capacity commitment period(s) would KCE seek to participate in?
23. Would KCE participate in any other ISO-NE markets (ex. ancillary services)?
24. How is the proposed facility consistent with the objectives of the state Conservation & Load Management Plan?

### **Proposed Facility and Associated Equipment**

25. Referencing Petition p. 4, provide the dimensions (e.g. length, width and height) of the control house.

26. Referencing Petition Exhibit A – Sheet C-2.0, identify where within the compound that the control house would be located.
27. Referencing Petition Exhibit A – Sheet C-2.0, list the equipment that would be installed on each equipment pad.

### **Interconnection**

28. Referencing Petition p. 3, KCE notes that “The Project inverters will export energy at 23 kV, so there will be no need for an additional main step-up transformer or substation.” Referencing Petition Exhibit B, Inverter Specifications Sheet, the SG3150U inverter has a nominal output voltage of 630 Volts AC. Additionally, each ST2752UX battery storage unit each contain a 5,000 kVA, 0.9 kV to 34.5-kV step-up transformer. Explain how the 23-kV output is obtained from this proposed facility.
29. Which equipment would step-down the 23-kV AC grid voltage and then convert it to DC to recharge the batteries? Explain.
30. Referencing Petition p. 10, an auxiliary power transformer would be procured on or about January 15, 2026. What would the auxiliary power transformer be used for, and where would it be installed?
31. Referencing Petition p. 4, approximately three new poles would be installed along the access road. What is the height of the utility poles above ground level after installation? Is the number of poles due to the span (i.e. distance) and/or to support attached equipment? Could the number of poles be reduced?
32. Is the facility interconnection required to be reviewed by ISO-NE?
33. Referencing Petition p. 4, subject to the final impact study and related design, would the facility be able to automatically disconnect from the grid in the event of a fault or other electrical disturbance? Explain.

### **Public Safety**

34. Would the project comply with the current National Electrical Code (NEC) and the National Electrical Safety Code (NESC)? What codes and standards apply to battery storage facilities?
35. Referencing Petition Exhibit B - ST2752UX specifications sheet, page 2, the battery units would have fused sprinkler heads for fire safety. Where will the connection for the water supply be located? Under what conditions might the sprinkler heads be activated, and how long would they continue to jettison water? In the event that such sprinkler heads are activated, would the ground surrounding the proposed facility be graded such that any sprinkler water flow would be directed away from the wetlands?
36. What layers of protection will be included to prevent “Thermal Runaway?” For example, please respond to the following:
  - a) Would explosion vent panels be installed on the top of battery energy storage system?
  - b) Would a fast-acting gaseous agent system be installed to potentially put any Class C fire out before it can turn into a Class B fire that involves the battery cells?
  - c) Would thermal imaging be employed?
37. Referencing Petition Exhibit B - ST2752UX specifications sheet, page 2, the 5,000 kVA transformers would have either mineral oil or “degradable oil upon request.” How much oil will each transformer hold, and will there be alarms (such as low-level oil alarms) that can alert monitors of a leak?

38. Referencing Petition Exhibit H – Acoustic Analysis, 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.
39. Referencing Petition p. 9, Sheet C-2.0 and Exhibit H – Acoustic Analysis:
- Of what material are the proposed sound walls composed (i.e. concrete block, turf, etc.)?
  - Provide construction detail of the proposed sound walls.
  - There is a gap in the proposed sound walls at the southwest corner of the facility site and a sound wall gate at the southeast corner of the facility site. How will the gap and gate affect the sound dampening characteristics of the sound walls?
  - Would a facility orientation in a north-south configuration instead of an east-west configuration reduce operational facility noise, potentially requiring no sound walls or a barrier of reduced height?
  - What are the dimensions of the sound walls?
  - What is the estimated cost of the sound walls?
40. How would first responders access the site? Would a secondary access point be necessary for first responders?
41. Are there municipal fire water sources located in the immediate vicinity of the proposed project for response tie-in in the event of a fire? Explain.
42. What type of media and/or specialized equipment would be necessary to extinguish a battery storage/electrical component fire? Specifically, based on any history of fires at installed battery systems, is there specialized firefighting equipment necessary to extinguish a Lithium-ion battery fire? Is there a concern with runoff and cleanup caused by fire extinguishment?
43. Referencing Petition Exhibit K – Operations and Maintenance Plan, will KCE provide training to the local first responders in proper firefighting protocols for Lithium-ion battery fires?
44. What are the industry Best Management Practices for Electric and Magnetic Fields at battery storage facilities?
45. What is the dominant source of EMF? Would the facility, including its interconnection, be expected to materially affect AC (i.e. 60 Hz) magnetic field levels at the host parcel boundaries? Explain.
46. Please describe how the proposed facility would comply with the Council’s White Paper on the Security of Siting Energy Facilities, *available at: [https://portal.ct.gov/-/media/CSC/1\\_Dockets-medialibrary/Docket\\_346/whiteprFINAL20091009114810pdf.pdf](https://portal.ct.gov/-/media/CSC/1_Dockets-medialibrary/Docket_346/whiteprFINAL20091009114810pdf.pdf)*

### **Environmental Effects and Mitigation Measures**

47. What is the distance from the limit of disturbance to the wetland boundaries?
48. Are there any wells on the site or in the vicinity of the site? If so, how would KCE protect the wells and/or water quality from potential construction and operational impacts?

49. Referencing Petition p. 8, KCE notes that up to 1.9 acres of tree clearing would be required. Of that acreage of tree clearing, indicate how many acres would be cleared and grubbed versus cleared only (i.e. not grubbed).
50. Would any tree clearing occur within core forest? If so, how many acres? How would tree clearing affect the acreage of core forest and core forest edge? Provide an aerial photograph that depicts pre- and post-construction acreage of core and edge forest.
51. Referencing Petition p. 7, provide a copy of the vernal pool survey, if available.
52. Referencing Petition p. 8 and Exhibit F, would development of the project protect important areas for the eastern box turtle (EBT) in the forest block by retaining available connectivity between habitat features? Explain.
53. Referencing Petition, p. 7 and Exhibit F, land disturbance would be minimized during April through October to protect the EBT. Page 9 of the Petition notes that construction would commence during the summer of 2025. Explain how construction land disturbance would be minimized during the construction time period.
54. Please 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.

55. Provide a photo-simulation of the proposed facility.

56. Where is the nearest recreational area from the proposed site? Describe the visibility of the proposed facility from this recreational area, if any.
57. Referencing Petition p. 8, has KCE received a response from the State Historic Preservation Office regarding the Phase 1A and Phase 1B reports? Why was a study area of 1 mile used for the review?
58. Referencing Exhibit G, Cultural Resources Survey Report and the Cultural Resources Survey for Council Petition 1396, available at the following link: [https://portal.ct.gov/-/media/CSC/3\\_Petitions-medialibrary/Petitions\\_MediaLibrary/MediaPetitionNos1301-1400/PE1396/filing/Citrine.PDF](https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1301-1400/PE1396/filing/Citrine.PDF) A Phase IA was completed for the host parcel of both the solar facility and the proposed battery energy storage facility in January 2020 that identifies the same archaeological and historic resources within 1 mile of the host parcel. Why was an entirely new assessment conducted?
59. Where is the nearest national, state and/or locally-designated scenic road from the proposed site? Describe the visibility of the proposed facility from these areas, if any.

### **Facility Construction**

60. Referencing Petition p. 10, facility construction would occur within an area that exceeds one acre. Estimate the total disturbance area in acres.
61. Has KCE submitted an application for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from the Department of Energy and Environmental Protection? If yes, when?
62. Has KCE met with the DEEP Stormwater Division? If yes, when? Please describe any recommendations, comments or concerns about the project provided by the Stormwater Division.
63. Has KCE consulted with the DEEP Dam Safety Division regarding permitting requirements, if any, for the proposed stormwater basin? Is the proposed stormwater basin an excavation-type basin or berm-type basin?
64. Referencing Petition p. 4, would the proposed 24-foot wide access route segment (that runs in a roughly northeast-southwest direction) be upgraded with gravel per Section 5.7 of the Geotechnical Report (Tab E)? Explain.
65. Would the existing access road segment from Skinner Street to where it turns onto the proposed 24-foot wide segment need to be upgraded? If yes, to what extent? Explain.
66. Would the proposed concrete pads be poured on site or delivered to the site? Explain.
67. Quantify the amounts of cut and fill that would be required to develop the proposed facility. If there is excess cut, will this material be removed from the site or deposited on the site?
68. Would any blasting be required to develop the site or stormwater features?
69. Referencing Petition Exhibit E – Geotechnical Report, has KCE determined the final design and construction methods for site development (i.e. foundations, subgrade preparation, etc.?)
70. Provide the estimated typical construction hours and days of the week (e.g. Monday through Friday 8 AM to 5 PM)?

### **Facility Maintenance/Decommissioning**

71. Referencing Petition p. 10, KCE notes that “Occasional vegetative control, mowing and snow plowing will be required to maintain the site...” Describe the type and frequency of anticipated maintenance of the stormwater basin.