STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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VIA ELECTRONIC MAIL

July 18, 2023

Lee D. Hoffman, Esq.
Pullman & Comley LLC
90 State House Square
Hartford, CT 06103-3702
lhoffman@pullcom.com

RE: **PETITION NO. 1579** – KCE CT 9, 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 5.0-megawatt AC battery energy storage facility located at 2 Ella T. Grasso Turnpike, Windsor Locks, Connecticut and associated electrical interconnection.

Dear Attorney Hoffman:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than August 8, 2023. 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 August 8, 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,

Melanie Bachman
Executive Director

MB/MP

c: Service List dated June 14, 2023

Petition No. 1579
KCE CT 9, LLC
2 Ella Grasso Turnpike, Windsor Locks, Connecticut

Interrogatories
July 18, 2023

Project Development

1. Has KCE CT 9, 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 and what program incentives apply to the project?

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. 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"?

9. Referencing Figure 3, ALTA/NSPS Land Title Survey:

    a. Would KCE use the existing easement for access across the Camrac, Inc. property at 8 Ella Grasso Turnpike (Access Easement A) in order to reach the host parcel from Ella Grasso Turnpike?
    b. Would KCE use the existing 20' right to grade and fill on the Camrac, Inc. property at 8 Ella Grasso Turnpike to develop the facility site?

Energy Output

10. How will the facility be dispatched and by whom?

11. When would the facility be dispatched (actively and passively) and for what duration?

12. 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?

13. Is the facility required to reserve any battery storage capability for backup power? Where would the backup power be used and by whom?

14. Can the facility operate between 0 and 5 MW, or would each module be dispatched based on need?

15. How long will it take for the facility to obtain full output from when it is dispatched?

16. How long would the facility typically take to fully recharge after a full 20 MWh AC discharge? Would the facility recharge during off-peak hours? Explain.

17. Is the 5 MW AC output based on the point of electrical interconnection?

18. Referencing Petition p. 4, the facility would have a maximum export capacity of 5 MW with a four-hour duration allowing a maximum delivery of 20 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 13.024 MWh a reserve storage, due to electrical losses, to prevent a full depletion of the batteries or other reason(s)? Explain.

19. Referencing Petition pp. 2, 3 and 9, KCE would participate in the ISO-NE Forward Capacity Market, and the facility would have an in-service date in January 2026. In which auction(s) and capacity commitment period(s) would KCE participate?

20. Would KCE participate in any other ISO-NE markets (ex. ancillary services)?

21. How is the proposed facility consistent with the objectives of the state Conservation & Load Management Plan?

Proposed Facility and Associated Equipment

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

23. Referencing Petition Tab A – Sheet C-2.0, identify where within the compound the control house would be located.

24. Referencing Petition Tab A – Sheet C-2.0, list the equipment that would be installed on each equipment pad.

Interconnection

25. 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.

26. Which equipment would step-down the 23-kV AC grid voltage and then convert it to DC to recharge the batteries? Explain.

27. Referencing Petition p. 9, an auxiliary power transformer would be procured on or about November 28, 2025. What would the auxiliary power transformer be used for, and where would it be installed (e.g. the AUX pad)?

28. Are there existing electrical distribution line(s) directly south of the host parcel and running east-west along the Route 20 corridor? Explain. Has KCE considered interconnecting to such existing distribution in lieu of a new interconnection route from the facility to Ella T. Grasso Turnpike? Explain.

29. 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?

30. Is the existing electrical distribution on Ella T. Grasso Turnpike three-phase, or would it have to be upgraded from single-phase to three-phase?

31. Is the facility interconnection required to be reviewed by ISO-NE?

32. 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

33. 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?

34. Referencing Petition p. 10, has KCE received the results of the Federal Aviation Administration (FAA) 7460 review for temporary crane use? If yes, please provide a copy.

35. Referencing Petition Tab 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 Tab 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 Tab G – 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. How would first responders access the site? Would a secondary access point be necessary for first responders?

40. Are there municipal fire hydrants located in the immediate vicinity of the proposed site for response tie-in in the event of a fire?

41. 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?

42. Referencing Petition Exhibit J – Operations and Maintenance Plan, will KCE provide training to the local first responders in proper firefighting protocols for Lithium-ion battery fires?

43. What are the industry Best Management Practices for Electric and Magnetic Fields at battery storage facilities?

44. 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.

45. 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/whitepprFINAL20091009114810pdf.pdf

Environmental Effects and Mitigation Measures

46. What is the distance from the limit of disturbance to the nearest wetland boundary?

47. 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?

48. Referencing Petition p. 8, KCE notes that the project would require minimal tree clearing. Tab A, Sheet C-2.0 of the Petition notes that no tree clearing is proposed. Would any trees six inches in diameter or greater be removed to accommodate the installation of the proposed facility? If yes, how many?

49. Referencing pages 6-7 of the Petition, provide a copy of the vernal pool survey, if available.

50. 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.

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

52. Where is the nearest publicly-accessible recreational area from the proposed site? Describe the visibility of the proposed project from this recreational area, if any.

53. Referencing Petition p. 8, has KCE received a response from the State Historic Preservation Office regarding the Phase 1A review? Why was a study area of 1 mile used for the review?

54. Where is the nearest national, state and/or locally-designated scenic road or area from the proposed site? Describe the visibility of the proposed facility from these areas, if any.

Facility Construction

55. Referencing Petition p. 9, facility construction would occur within an area of less than one acre. Estimate the total disturbance area in square feet.

56. Would the proposed concrete pads be poured on site or delivered to the site? Explain.

57. 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?

58. Referencing Petition Exhibit E – Geotechnical Report, would any blasting be required to develop the site? Has KCE determined the final design and construction methods for site development (e.g. foundations, subgrade preparation, etc.)?

59. Provide the estimated typical construction hours and days of the week (e.g. Monday through Friday 8 AM to 5 PM)?