



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

October 25, 2023

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

RE: **PETITION NO. 1591** – KCE CT 5, 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 Village Hill Road, Stafford (Parcel No. 71-6) and Willington (Parcel No. 52-001-00), Connecticut, and associated electrical interconnection. **Council Interrogatories to Petitioner.**

Dear Attorney Hoffman:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than November 15, 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 November 15, 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

MAB/RDM

c: Service List dated September 12, 2023

Petition No. 1591
KCE CT 5, LLC
Village Hill Road, Stafford (Parcel No. 71-6) and Willington (Parcel No. 52-001-00)

Interrogatories
October 25, 2023

Project Development

1. Has KCE CT 5, LLC (KCE) received any comments since the Petition was submitted to the Council? If yes, summarize the comments and how they were addressed.
2. Referencing Petition Exhibit M, Town of Stafford outreach, a potential public information meeting is mentioned. Did the Town of Stafford or Town of Willington request a public information meeting? If yes, where and when was it held?
3. If the project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s)?
4. What is the estimated cost of the project? How are costs recovered? Is the energy being purchased at market rates?
5. Referencing Petition p. 2, 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?
6. 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?
7. 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

8. 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.
9. Referencing Petition p. 4, what are the benefits of the proposed site location given that it is in a rural area? For example, is the proposed site located within a “load pocket” or on the “grid edge”?
10. Is the site, or any portion of the host parcel, part of the Public Act 490 Program? If so, how does the municipal land use code classify the parcel(s)? How would the project affect the use classification?
11. Is it possible to construct the Battery Energy Storage Facility (BESF) in the eastern portion of the host parcel or adjacent to Blair Road?

12. Referencing Petition Exhibit C and Exhibit G of the Petition, if the facility is approved, would notice of the property leases and associated abutting property owner noise waiver be recorded on the respective municipal land records? Is the noise waiver coextensive with the lease term or useful life of the facility?

Energy Output

13. Referencing Petition p. 4, once the BESF is dispatched, for what minimum duration would energy be supplied? Is the minimum duration based on operational or market characteristics?
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 5 MW? Would each module be dispatched based on need?
17. Would the facility recharge during off-peak hours? Explain.
18. Is the 5 MW AC output based on the point of electrical interconnection?
19. Referencing Petition p. 5, approximately how much of the battery export capacity will be held in reserve to prolong the battery life?
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. 3 and Tab A – Sheet C-2.0, provide the dimensions (e.g. length, width and height) of the equipment (excluding the control house) that would be installed on each equipment pad.

Interconnection

23. Why does the point of interconnection occur on Blair Road rather than Village Hill Road? If there is not enough capacity on the existing distribution line on Village Hill Road, what measures would be necessary to increase capacity?
24. Referencing Petition pp. 3-5, estimate the number of poles required to extend the interconnection line to Blair Road. What is the expected approximate height of the utility poles above ground level after installation? Besides the interconnection line, would any of the proposed poles support attached equipment?
25. Is the existing electrical distribution on Blair Road three-phase, or would it have to be upgraded from single-phase to three-phase?

26. Referencing Petition p. 4, what is the status of the system impact study with Eversource? Is it anticipated the battery manufacturer/model will change based on the interconnection agreement?
27. Referencing Petition p. 3, 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

28. What specific codes and standards apply to battery storage facilities? Which version of the National Electrical Code would the Project be designed for?
29. Identify the code/standard and section that addresses the minimum fence height for the BESF.
30. 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.?
31. Referencing Petition p. 14, KCE recommends a fire containment strategy until the fire is exhausted. 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.
32. Referencing Petition p. 14, the battery units would have fused sprinkler heads for fire safety but the use of the sprinkler system is not recommended. Identify the guidance that recommends that the sprinkler system should not be used. What specific issues arose from use of this system? Will KCE permanently disable the system to prevent accidental use by first responders?
33. 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 wetlands?
34. Referencing Petition p. 14, if a battery canister is on fire, water is recommended to cool adjacent battery containers. What would be the result of water suppression overspray on the burning battery container?
35. Would firewater or other runoff from a battery fire be considered hazardous and require cleanup by a hazardous materials response contractor?
36. Referencing Petition p. 14, 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 the 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. 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?
38. Is the proposed access road designed to accommodate fire response vehicles?
39. Referring to Petition Exhibit J, Emergency Response Plan (ERP) p. 6, what type of training will the Emergency Response Coordinator have regarding fire response? What entity conducts the training and to what standard?

40. Would KCE dispatch personnel to the BESF in the event of a fire? Where would KCE personnel be located that can respond to site emergencies? Do first responders have to wait on-site for KCE personnel to arrive before beginning emergency response measures?
41. Would placards be installed at the facility to alert emergency responders as to how to extinguish a fire, the fire media to be used, and contact numbers to operators of the BESF? If yes, provide detail. If no, explain why such measures are not necessary.
42. Referring to Petition Exhibit J, ERP p. 16 it states “a copy of this plan [ERP] shall be located at each facility”. Where would the ERP be located? How would first responders identify its location?
43. Referring to Petition Exhibit J, ERP p. 29 and Petition Exhibit A, Project Site Plans, identify the location of the fire department staging area.
44. Referring to Petition Exhibit J, ERP p. 29, what role does the battery supplier have in fire emergency response? What procedures would be followed if the battery supplier is not available?
45. Referring to Petition Exhibit J, ERP p. 32,
 - a. would smoke from the fire be considered hazardous and require notification to local and/or state authorities besides fire personnel? If yes, list the authorities / and local and state entities.
 - b. Would smoke require area residences to stay in place or evacuate? If yes, who would determine if these actions are necessary?
46. Referring to Petition Exhibit J, ERP p. 49, the NOTICE box states
“If the battery container is equipped with a fire engine and a combustible gas engine, check the state of the ship type switch in the engine. If any ship type switch is in the off position, move it to the off position”.
Define the terms “fire engine”, “combustible gas engine” and “ship type switch”. Clarify the required action in the last sentence.
47. What are the industry Best Management Practices for Electric and Magnetic Fields at battery storage facilities?
48. Referencing Petition Exhibit B - Liquid Cooling Energy Storage System, the transformers would have either mineral oil or “degradable oil upon request.” What type of oil will be specified? 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?
49. Referencing Petition Exhibit G – Acoustic Analysis,
 - a. 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?
 - b. Was the modeling performed for the worst-case scenario, and does such scenario also take into account any fans for the cooling system? Explain.
 - c. What mitigation methods can be employed to reduce the sound level at the north property boundary to meet applicable Department of Energy and Environmental Protection (DEEP) Noise Standards?

Environmental Effects and Mitigation Measures

50. 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?
51. Referencing Petition Exhibit E, Geotechnical Report, Figure 1 (test location plan) is not legible. Provide a legible copy.
52. Referencing Petition p. 8, four acres of trees would be removed to develop the BESF. Would core forest be impacted from the proposed tree clearing? What methodology/resources were used to determine core forest impact?
53. Referencing Petition Exhibit M, the March 23, 2023 pre-application meeting with DEEP described 1 to 1.5 acres of tree clearing for the site. What project site changes occurred since the meeting that increased the amount of clearing to 4 acres?
54. Revise Site Plan C-3 to show contours and grading along the proposed access drive, grading within the compound, tree clearing limits for the compound, access drive and utility line, location of vernal pools, and complete boundaries of the wetland delineation.
55. Referencing Petition p. 9, which DEEP Division was consulted regarding the stream crossing? Are bottomless culverts proposed for the intermittent stream crossings? Does the proposed culvert crossing conform to DEEP's Stream Crossing Guidelines?
56. Referring to Petition Figure 5 and Petition Exhibit D, was the southwestern portion of the host parcel surveyed for vernal pools/wetlands?
57. Referring to Petition Exhibit D, the Wetland and Watercourse Report.
 - a. Blue-spotted salamander egg masses were identified within Vernal Pool 1. Are blue-spotted salamanders a State-listed species? If yes, what is their classification?
 - b. What salamander mitigation measures could be implemented at the site?
 - c. Provide a vernal pool habitat assessment (pre and post construction) in accordance with methodology provided in the U.S. Army Corps of Engineers Vernal Pool Best Management Practices.
 - d. What is the average dispersal range from a vernal pool to an upland area for the blue spotted salamander?
 - e. What is the distance of the proposed BESF and access drive to the two identified vernal pools?
58. The Petition Geotechnical Report indicated the proposed stormwater basin is in an area containing soils with low permeability. Could the basin intercept and retain groundwater during times of a highwater table such as spring? What methods could be deployed to reduce the possibility of the stormwater basin from acting as a decoy pool for vernal pool obligate species?

59. 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

60. Would the proposed concrete pads be poured on site or delivered to the site? Explain.
61. 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?
62. Provide a site construction phasing plan.
63. What methods would be employed to control erosion during construction of the interconnection route? Is a permanent road proposed along the interconnection route? If yes, provide detail.
64. Would 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.)?

Facility Maintenance/Decommissioning

65. Referring Petition p. 5, it states the battery cells may be replaced after 5 years,
 - a. what is the anticipated life of a battery before replacement/replenishment is required?
 - b. what is anticipated annual degradation of battery storage capacity?
 - c. at what remaining battery capacity is replacement/replenishment recommended?
 - d. what is the estimated cost of replacement/replenishment?

66. At what time intervals would the transformers, inverters and switchgear need replacement?

67. How frequently would site visits be required for maintenance purposes?

68. At what intervals would vegetation management occur within the interconnection corridor?