

STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

April 2, 2024

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

RE: **PETITION NO. 1608** – Greenskies Clean Energy, 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 3.035-megawatt AC solar photovoltaic electric generating facility located at 141 Middlefield Road, Durham, 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 April 23, 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 April 23, 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

Matria Steel

c: Service List dated January 18, 2024

Petition No. 1608 Greenskies Clean Energy, LLC 141 Middlefield Road, Durham, Connecticut

Interrogatories April 2, 2024

Notice

1. Referencing Petition pp. 17-18, has Greenskies Clean Energy LLC (GCE) received any comments since the petition was submitted to the Council? If yes, summarize the comments and how these comments were addressed.

Project Development

- 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?
- 4. Is the project, or any portion of the project, proposed to be undertaken by state departments, institutions or agencies, or to be funded in whole or in part by the state through any contract or grant?
- 5. If the facility operates beyond the terms of the Shared Clean Energy Facilities (SCEF) Agreement, will GCE decommission the facility or seek other revenue mechanisms for the power produced by the facility?
- 6. If GCE transfers the facility to another entity, would GCE 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?
- 7. Referencing Petition p. 13, GCE notes that, "A draft construction schedule timeline is provided as Figure 8 Construction Schedule." Figure 8 appears to be the Wetland Delineation Map. Provide a projected construction schedule.

Proposed Site

- 8. Submit a map clearly depicting the boundaries of the solar project site, the boundaries of the host parcel(s) and the locations of the proposed agricultural co-uses referenced in GCE's November 14, 2023 letter to the Department of Agriculture (DoAg), Under Regulations of Connecticut State Agencies §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. What is the length of the lease agreement with the property owner? Describe options for lease extension(s), if any.
- 10. Does the lease agreement(s) with the property owner contain provisions for agricultural co-uses at the site? If yes, describe these co-uses.

- 11. In the lease agreement with the property owner, are there any provisions related to decommissioning or site restoration at the end of the project's useful life? If so, please describe and/or provide any such provisions.
- 12. If agricultural co-uses are implemented at the site, who would be responsible for responding to concerns and/or complaints related to these agricultural co-uses? How would contact information be provided for complaints?
- 13. Is the site parcel, or any portion thereof, 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?
- 14. Has DOAg purchased any development rights for the facility site or any portion of the facility site as part of the State Program for the Preservation of Agricultural Land?
- 15. Referring to Petition pp. 24-26 and November 14, 2024 letter from GCE to DOAg, are the proposed beekeeping area, herb and botanical planting areas, perennial cold season grass areas, pollinator-friendly flower planting areas and sheep grazing areas all located within the facility "site?" If yes, provide the following information for these agricultural co-use areas.
 - a. What entity would manage these areas?
 - b. If the project is sold and/or transferred to another entity, would the sale and/or transfer include management and maintenance of these agricultural co-use areas?
 - c. Would parking and access for emergency vehicles be available?
 - d. Would the hours of accessibility be limited or unlimited? Explain.
 - e. Will signs be posted related to the hours of accessibility, permitted and prohibited uses, etc.?
 - f. Who would be liable for any personal injury?
 - g. Who would be responsible for maintenance of the agricultural co-uses described above? What type of maintenance is necessary and how frequently would maintenance activities occur?
 - h. Identify the water source for these agricultural co-use areas.
 - i. Could the lease agreement with the host property owner be amended to remove these agricultural co-use areas from the solar facility "site," as defined under RCSA §16-50j-2a(29)?

Energy Output

- 16. Referencing Petition p. 4, GCE notes that energy produced by the facility would be sold to Eversource. Has GCE executed a Tariff Terms Agreement (TTA) with Eversource? Would GCE also sell the renewable energy certificates (RECs) to Eversource? Would the TTA include the transfer of capacity to Eversource?
- 17. Is the project being designed to accommodate a potential future battery storage system? If so, please indicate the anticipated size of the system, where it may be located on the site, and the impact it may have on the SCEF Agreement.
- 18. If one section of the solar array experiences electrical problems causing the section to shut down, could other sections of the system still operate and transmit power to the grid? By what mechanism are sections electrically isolated from each other?

- 19. Would GCE participate in the ISO-NE Forward Capacity Auction? If yes, which auction(s) and capacity commitment period(s)?
- 20. Referencing Petition p. 11, have electrical loss assumptions been factored into the output of the facility? What is the output (MW AC) at the point of interconnection?
- 21. What is the projected capacity factor (expressed as a percentage) for the proposed project?
- 22. When the SCEF Agreement contract expires and the solar facility has not reached the end of its lifespan, will GCE decommission the facility or seek other revenue mechanisms for the power produced by the facility?
- 23. Would GCE construct the facility if the solar array footprint was reduced and/or if the facility design features (ex. row spacing, panel height, etc.) were modified? Explain.

Proposed Facility and Associated Equipment

- 24. Referencing Petition p. 26, GCE notes that, "The leading edge of the modules will be a minimum of 3.5 feet..." What is the **maximum** height from grade to the bottom edge of the panels? What is the **maximum** height from grade to the top edge of the solar panels?
- 25. Referencing Petition p. 26, what type of machinery would be used by farmers in harvesting the crops beneath and between solar racking? Where would the increased signage and fencing be located?
- 26. Provide the distance, direction and address of the nearest property line and nearest off-site residence from the solar field perimeter fence, transformer pads, and the proposed access drive.
- 27. Is the wiring from the panels to the inverters installed on the racking? If wiring is external, how would it be protected from potential damage from weather exposure, vegetation maintenance, farming activities or animals?
- 28. Provide the approximate dimensions of the proposed equipment pads.
- 29. List the equipment that would be installed on the proposed equipment pads. Would the project have one or more transformers? Explain.
- 30. What is the expected useful life of the proposed solar facility?
- 31. How could GCE minimize the solar facility footprint and its visibility to the maximum possible extent without provisions for agricultural co-uses (ex. slimmer row spacing, lower panel height)?

Electrical Interconnection

- 32. Petition p. 11 refers to Electrical Plans behind Appendix B. The Equipment Specifications are behind Appendix B. Provide the subject Electrical Plans.
- 33. What is the status of the electrical layout and the Interconnection Agreement with Eversource?
- 34. Provide the line voltage of the proposed electrical interconnection.

- 35. Referencing Petition p. 11, does the Project interconnection require a review from ISO-NE?
- 36. Would any off-site upgrades to the existing electric distribution system be required (e.g. distribution line upgrades and/or upgrades from single to three phase)? If yes, describe.
- 37. Petition p. 17 states "... at least 60% of the total capacity of the facility will be supplied to low-and moderate-income customers..." Where will the remaining approximately 40% be supplied?
- 38. Referencing Petition Drawing C-2.0, five new utility poles are proposed. Approximately how tall would these poles be above grade? Identify the equipment that would be installed on the proposed utility poles. There are existing utility poles 18, 19, 20, 21, 22, 23 and 25 identified along Middlefield Road. Where is utility pole 24 located?
- 39. Have there been any discussions with Eversource about using pad-mounted equipment rather than pole-mounted equipment? Provide cost estimates for both an overhead and underground interconnection.

Public Safety

- 40. Would the project comply with the current Connecticut State Building Code, National Electrical Code, National Electrical Safety Code, Connecticut State Fire Prevention Code, and National Fire Protection Agency codes and standards, as applicable?
- 41. What are industry Best Management Practices for Electric and Magnetic Fields at solar facilities? Would the site design conform to these practices?
- 42. Would training be provided for local emergency responders regarding site operation and safety in the event of a fire or other emergency at the site?
- 43. Referencing Petition p. 26, GCE notes that, "The site is being designed with farmer's safety in mind." What is the proposed aisle width for the farming activities, and how is it sufficient for farmer's safety?
- 44. In the event of a brush or electrical fire, how are potential electric hazards that could be encountered by emergency response personnel mitigated?
- 45. Could the entire facility be shut down and de-energized in the event of a fire? If so, how?
- 46. What type of media and/or specialized equipment would be necessary to extinguish a solar panel/electrical component fire?
- 47. How would site access be ensured for emergency responders?
- 48. What type of oil is within the transformers? Do the transformers have a containment system in the event of a leak? Can the remote-monitoring system detect an insulating oil leak?
- 49. Are there any water supply wells in the vicinity of the site? If yes, would the installation of racking posts affect well water quality from construction impacts, such as vibrations and sedimentation?
- 50. Identify the distance/direction of the nearest federally-obligated airport from the proposed site.

- 51. Would notice to the Federal Aviation Administration be necessary for the temporary use of a crane during construction? Explain.
- 52. Referencing Petition p. 22, would the results of the noise calculations be impacted by cumulative noise from the transformer and inverters, or would the inverters be the dominant source of noise? Would such equipment operate at night? Explain.
- 53. Referencing Petition p. 22, the projected noise level at a distance of 75.5 feet from the inverters would be less than 55 dBA. Does this noise value represent one inverter unit or a bank of 10 inverters operating simultaneously?
- 54. Referencing Petition p. 22, paragraph 3, what is the projected noise in dBA at the nearest abutting property line? Provide a noise analysis that includes this projected noise level in dBA. Is this projected noise level based on one inverter or a bank of 10 inverters?
- 55. Referencing Petition p. 23, a Phase I Environmental Site Assessment (ESA) identified one Area of Concern where there may be possible herbicide or pesticide contamination in the soils. It indicates a copy of the Phase I ESA is behind Appendix E. Appendix E is the Stormwater Report. Provide a copy of the Phase I ESA.

Environmental Effects and Mitigation Measures

- 56. Is the proposed project located within 150 feet of a known northern long-eared bat (NLEB) maternity roost tree or within 0.25-mile of a known NLEB hibernaculum? How would the proposed project affect the NLEB?
- 57. Referencing Petition, Drawing C-5.1, please respond to the following regarding the fence design.
 - a) The proposed 7-foot chain link fence would have a 6-inch wildlife gap. Would this gap also be compatible with potential sheep grazing? If no, what size gap would be compatible?
 - b) Could GCE install an agricultural style fence? If so, provide a photograph or drawing of such fence design and the incremental cost versus the proposed fence configuration.
 - c) Would an agricultural style fence design be compatible with potential sheep grazing at the site?
 - d) What size gap under an agricultural style fence would be compatible with wildlife migration and potential sheep grazing at the site?
- 58. Referencing Petition p. 28, approximately 6 acres of tree clearing is proposed. Please provide the following:
 - a. Acreage of tree clearing only; and
 - b. Acreage of tree clearing and grubbing.
- 59. What is the length of the posts and to what depth would the posts be driven into the ground to provide structural stability? Are any impacts to groundwater quality anticipated? If so, how would the petitioner manage and/or mitigate these impacts?
- 60. Referencing the November 14, 2023 letter from GCE to DOAg, commercial herb and botanical farming, a pollinator habitat and honeybee apiary are proposed as on-site agricultural co-uses.
 - a. How much space is required under and adjacent to the panels for herb and botanical farming, taking into account sunlight or shading effects?
 - b. Where would the pollinator habitat and honeybee apiary be located on-site?

- 61. Would on-site herb and botanical farming be conducted by a third-party farmer?
- 62. Would on-site pollinator habitat and honeybee apiary be managed by a third party?
- 63. Referencing Petition p. 26 and Drawing C-2.0, the aisles between the solar arrays have been widened to accommodate 26.5 feet solar panel row to row spacing (or equivalently, 12.5 feet aisle width) to allow for crop production and farmer safety. What is the minimum aisle row spacing for efficient operation of this facility? If the narrower aisle width was used, by how many acres would the facility footprint be reduced?
- 64. How was it determined that 12.5-foot wide aisles is the minimum space to support crop production? Is it anticipated crops would be grown across the 12.5-foot wide aisle or would there be offsets from the solar panel edges? Would any crop growth extend under the panels? If so, by how many feet?
- 65. Would the larger facility site footprint to accommodate 12.5-foot wide aisles for crop production require additional stormwater detention when compared to a project with narrower aisles?
- 66. Referencing Petition Appendix F Stormwater Report, was the crop production within the facility site footprint accounted for within the post-construction calculations? Explain.
- 67. Have the details of the Agricultural Co-use Plan for areas within the fenced solar facility site been finalized? If so, please submit the plan. If not, when is the anticipated completion date?
- 68. Referencing Petition p. 29, all water used for construction would be trucked in. What is the source of water for the proposed crop production? If sheep grazing were to occur on the site as a secondary agricultural co-use, what would be the source of water for the sheep?
- 69. Does GCE intend to offer free use of the solar facility site to the third-party farmers or would there be a sub-lease with monetary terms? Does the lease agreement with the property owner permit sub-leasing?
- 70. Referencing the November 14, 2023 letter from GCE to DOAg, p. 5, GCE letter notes that, if herb farming is not a viable option for the Project, GCE would utilize sheep grazing instead. Under what circumstances could the herb farming be deemed not viable? At what point in the planning process would this be determined?
- 71. If the Project is approved, and if the herb farming is later deemed no longer viable, would GCE submit a sheep grazing plan at that time?
- 72. Referencing Petition p. 13, indicate the type and location of proposed landscaping/screening measures. Which abutting properties would be incorporated into the landscaping/screening plan? Provide a proposed landscaping/screening plan.
- 73. Where is the nearest publicly accessible recreational area from the proposed site? Describe the visibility of the proposed facility from this recreational area.
- 74. Referencing Petition, p. 26, what is the status of the Phase 1B study? Provide a copy of the Phase 1B Report if it is available.

- 75. Referencing Petition Appendix F Phase 1A Report, p. 24, paragraph 4, could the existing stone walls be retained, in whole or in part? Explain why or why not. If the walls could be retained, please indicate walls to remain on Figure 6 Proposed Project Layout.
- 76. Where is the nearest national, state and/or locally-designated scenic road from the proposed site? Describe the visibility of the proposed project from the nearby scenic road(s).
- 77. Referencing Petition p. 7, it states the parcel is "progressively cleared by the landowner." Does the landowner harvest wood and if so, is the wood harvesting considered an agricultural activity?
- 78. Referring to Petition pp. 13 and 29, is the preliminary design of the Project at least 50 percent complete? If not, would construction comply with the *Connecticut Soil Erosion and Sediment Control Guidelines* and *Connecticut Stormwater Quality Manual*, effective March 30, 2024?
- 79. 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).

Facility Construction

- 80. Referencing Petition p. 18, during the November 14, 2023 meeting with DEEP, please describe any recommendations, comments or concerns about the project that were discussed.
- 81. Has the Petitioner consulted with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basins? Explain.

- 82. DEEP's General Permit Appendix I states that 50-foot wetland buffers shall be comprised of existing dense herbaceous vegetative ground cover. Provide information regarding the presence of this ground cover type within the proposed wetland buffer area.
- 83. With regard to earthwork required to develop the site, provide the following:
 - a) Will the site be graded? If so, in what areas?
 - b) What is the desired slope within the solar array areas?
 - c) Could the solar field areas be installed with minimal alteration to existing slopes?
 - d) If minimal alteration of slopes are proposed, can existing vegetation be maintained to provide ground cover during construction?
 - e) Estimate the amounts of cut and fill in cubic yards for the access road(s)
 - f) Estimate the amounts of cut and fill in cubic yards for solar field grading.
 - g) If there is excess cut, will this material be removed from the site property or deposited on the site property?
- 84. How would the posts (that support the racking system) be driven into the ground? In the event that ledge is encountered, what methods would be utilized for installation?
- 85. Has a comprehensive geotechnical study been completed for the site to determine if site conditions support the overall Project design? If so, summarize the results. Was any tree clearing necessary to perform the geotechnical study? If so, where?
- 86. Would any blasting be required to develop the site or stormwater features?
- 87. Submit a construction fuel materials storage, refueling and spill response plan with applicable contact information.

Facility Maintenance/Decommissioning

- 88. Would the inverters last the life of the project? If not, at what time interval would the inverters need to be replaced?
- 89. Referencing Petition p. 29, how often would the panels be cleaned? What equipment and substances would be used?
- 90. Would the Petitioner remove snow that accumulates on the panels? Would snow accumulation on the solar panels affect the output of the facility? Under what circumstances would snow be removed? Describe snow removal methods.
- 91. Referencing Petition p. 10, would GCE agree to install solar panels that are not classified as hazardous waste through Toxicity Characteristic Leaching Procedure testing?
- 92. Would replacement modules be stored on-site in the event solar panels are damaged or are not functioning properly? If yes, in what location?