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November 18, 2021

**VIA ELECTRONIC MAIL AND HAND DELIVERY**

Melanie Bachman  
Executive Director/Staff Attorney  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**Re: PETITION 1466 - Greenskies Clean Energy LLC Petition for Declaratory Ruling, Pursuant to Conn. Gen. Stat. §§4-176 and 16-50k, for the Proposed Construction, Operation and Maintenance of a 2.5 MW AC Solar Photovoltaic Electric Facility Located Treat Farm, 361 Old Tavern Road, Orange, Connecticut, and associated electrical interconnection**

Dear Ms. Bachman:

I am writing on behalf of my client, Greenskies Clean Energy, LLC (“Greenskies”) in connection with the above-referenced Petition. With this letter, I am enclosing an original and 15 copies of Greenskies’ responses to the Siting Council’s First Set of Interrogatories, issued on October 28, 2021. Please accept the original and 15 copies of these responses, and please date-stamp the remaining copy of the responses and return it to my Paralegal Kurt Sheathelm, who is hand delivering the responses.

If you have any questions concerning this submittal, please contact me at your convenience. Thank you in advance for your consideration of this Petition.

Sincerely,

Lee D. Hoffman  
Enclosures

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

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 2.5-megawatt AC solar photovoltaic electric generating facility to be located at Treat Farm, 361 Old Tavern Road, Orange, Connecticut, and associated electrical interconnection.

Petition No. 1466

November 18, 2021

**GREENSKIES CLEAN ENERGY, LLC'S RESPONSES TO THE OCTOBER 28, 2021  
FIRST SET OF INTERROGATORIES DIRECTED TO GREENSKIES CLEAN  
ENERGY, LLC FROM THE CONNECTICUT SITING COUNCIL**

Petitioner Greenskies Clean Energy, LLC ("GCE" or "Petitioner") hereby submits the following responses to the Interrogatories that were directed to Greenskies by the Connecticut Siting Council on October 28, 2021

**Notice**

**1. Referring to Petition pp. 20-21, what were the concerns of the abutters that contacted GCE and how were these concerns addressed?**

On June 3, 2021, GCE spoke with the abutter at 388 Timberlane Drive. She had general questions regarding the view from her property. After conversation, she had no further concerns.

On June 1, 2021, the abutter at 394 Timberlane Drive called, and GCE answered his general questions regarding how tall the panels will be and the distance from their property to the nearest string of panels of the array.

On June 11, 2021, GCE responded to multiple questions received from the abutter at 353 Old Tavern Road. This abutter subsequently contacted counsel for GCE with additional questions about the Project by both phone and e-mail. Counsel answered general questions that the abutter posed. Once that was completed, the abutter requested a copy of the Petition. Counsel replied by e-mail providing the abutter with a link to the Petition.

On June 2, 2021, GCE responded to questions from the abutter at 464 Peck Lane regarding the approval process of the Petition and the future off-taker of the power from the solar facility.

On June 2, 2021, the abutter at 446 Peck Lane asked if the location of the solar array could be moved from the location shown on the map enclosed in the letter. GCE's response to the abutter's request regarding moving the location of the array was that GCE was submitting its Petition to the Connecticut Siting Council for the solar array in that location, and GCE was not proposing moving it at this time. Greenskies did not receive a reply to the email from the abutter. Greenskies also left a voice message for the abutter asking if they would like to discuss the matter further however, Greenskies did not receive a reply call from the abutter.

No further communication was received from abutters.

### **Project Development**

- 2. If the project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s).**

Permits required for the proposed Project are the Connecticut Department of Energy and Environmental Protection (the "CTDEEP") General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (the "General Permit"), as well as building and electrical permits from the Town of Orange Building Department. It is anticipated that GCE will hold the General Permit, and the Project's contractor will hold the building and electrical permits.

- 3. Page 4 of the Petition states the project participated and was selected in the "Renewable Energy Credit Program selling power to Connecticut State Colleges and Universities." To which college or university would GCE sell the power from the project?**

GCE will be selling the power from the Project to Connecticut State Colleges and Universities.

- 4. Referring to Appendix N, page 2 of the September 7, 2021 correspondence from GCE to the Department of Agriculture states under 2(b), "This project is a zero emissions renewable energy project and virtual net metering project. The energy will be used by the City of New London through a virtual net metering contract." Is the project subject to a virtual net metering agreement? Would all 2.5 MW AC be dedicated to virtual net metering? Please explain.**

The original reference to the City of New London was in error. The project is subject to a virtual net metering agreement with the Connecticut State Colleges and Universities.

5. **The Petition states the ZREC contract is for a period of 15 years. Can this contract be extended/renewed? If not and the solar facility has not reached the end of its lifespan, will the Petitioner decommission the facility at that time or seek other revenue mechanisms for the power produced by the facility?**

Petitioner respectfully objects to this interrogatory as it exceeds the scope of review for a petition under General Statutes § 16-50k. Subject to this objection, Petitioner responds as follows:

The Petitioner has secured land control of the project site for a longer time period than the duration of the ZREC contract. It is GCE's expectation that the project will operate longer than the fifteen years provided for by the ZREC contract and will have an extended useful life generating electricity. This is currently the expectation of GCE as to how the project will operate after the termination of the ZREC contract. However, the exact use of the site after expiration of ZREC contract will depend on energy market conditions at the time. If continued energy sales are not viable, the project will be properly decommissioned at that time.

6. **Page 17 of the Petition states "a portion of the project was successful in securing an LREC/ZREC contract at the end of 2020." What portion of the project secured an LREC/ZREC contract?**

Petitioner respectfully objects to this interrogatory as it exceeds the scope of review for a petition under General Statutes § 16-50k. Subject to this objection, Petitioner responds as follows:

There are two LREC/ZREC contracts that cover the entire nameplate capacity of the Project as proposed (2.5 MW).

7. **Would the Petitioner participate in the ISO-NE Forward Capacity Auction? If yes, which auction(s) and capacity commitment period(s)?**

No, the Petitioner does not intend to participate in the ISO-NE Forward Capacity Auction.

8. **What is the estimated cost of the project?**

The estimated cost of the project is approximately \$6.5 million.

### **Proposed Site**

9. **Please submit a map clearly depicting the boundaries of the solar project site and the boundaries of the host parcel(s). Under 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.**

The requested map is included with this response as Exhibit A.

10. **Is the site parcel, or any portions 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?**

Petitioner respectfully objects to this interrogatory as it exceeds the scope of a petition under General Statutes § 16-50k. Moreover, this interrogatory solicits a legal conclusion to which no response is required. Subject to this objection, Petitioner responds as follows:

The site parcels are currently part of the Public Act 490 program, and the Town of Orange currently classifies the use of the parcels as code #108, which is defined as “a lot with multiple houses.” As the Council is aware, GCE is proposing agricultural uses at the project, even after the project is generating electricity. No existing homes on the lot will be taken down as a result of the construction of the Project, and the land will continue to be used for agriculture, so GCE does not anticipate a change to the land’s use code or its ability to continue to be part of the Public Act 490 program. However, to GCE’s knowledge, the issue of whether agricultural operations at a renewable energy facility are sufficient to maintain a parcel’s status under Public Act 490 has never been determined.

11. **Has the State of Connecticut Department of Agriculture (DOAg) purchased any development rights for the project site or any portion of the project site as part of the State Program for the Preservation of Agricultural Land?**

To the best of Petitioner’s knowledge, the Department of Agriculture has not purchased any such development rights.

12. **Referring to Petition Appendix G, the Phase 1A/1B Survey included a larger project footprint than what is now proposed. Please explain.**

The original conceptual layouts for the Project contemplated a larger footprint and nameplate capacity, which is during the time that the Phase 1A/1B surveys were completed and reports were prepared for the same. Since that time, the Project footprint and nameplate capacity were reduced primarily due to ongoing discussions with the landowner and their interest in maintaining current farm operations in specific areas of the Site.

13. **Would the construction, maintenance and operation of the solar facility interfere with the property owner's continued agricultural activities that are currently conducted on the site parcel and the host parcel?**

No, the project, as it is currently designed, would not impact existing farm roads or existing agricultural activities, either during construction, maintenance or operation of the project.

14. **Provide the distance, direction and address of the nearest property line from the perimeter fence.**

The nearest property line to the proposed Project perimeter fence is 500 Peck Lane, Orange, CT, which is approximately 203 feet to the north at its closest point.

### **Energy Output**

15. **What is the projected capacity factor (expressed as a percentage) for the proposed project? What electrical loss assumptions been factored into the output of the facility?**

The estimated capacity factor for the project based on AC capacity is 19.7 %. All standard loss assumptions such as module rating mismatch, temperature effects, shading, voltage line losses, soiling, expected downtime, transformer efficiency etc. are included in the estimate.

16. **Could the project be 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 PPA.**

The current system could not be retrofitted with batteries for two reasons. First, the inverters to be used are not designed to handle DC-coupled energy storage. Second, the interconnection agreements do not allow for AC-coupled energy storage. However, if batteries are desired in the future, a separate interconnection application for AC-coupled batteries and co-located energy storage system could be developed. In addition, the current PPA/LREC agreements do not have any inclusion of batteries. Thus, there would need to be new revenue agreements in place for the co-located project.

17. **Could the project be designed to serve as a microgrid?**

No. A micro grid requires a combination of energy storage, generation and load. The current project does not have either load or energy storage available. If a microgrid of storage and load

was to be developed in the area, then it is possible that the energy output from this project could serve as a generator to that microgrid.

18. **If one section of the solar arrays 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?**

Yes. Sections of modules throughout the array are connected to multiple inverters. An inoperable inverter does not impede the functionality of other inverters.

### **Site Components and Solar Equipment**

19. **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, or animals?**

Photovoltaic wire is typically run on, and supported by, the racking. The specified wiring is typically UV rated to protect from degradation from sun exposure. If a jumper is required (*e.g.*, when DC wiring must go from one row to the next) or when a run must go from the racking to the inverter, or row to row, the wire is typically run through conduit. Such conduit is buried and comprised of PVC.

20. **Would the power output of the solar panels decline as the panels age? If so, estimate the percent per year.**

Yes, power output is expected to degrade over time. Based on recommendations from module manufactures, studies, and industry standards GCE assumes a linear energy loss with a .5 % annual degradation.

### **Interconnection**

21. **Referring to Petition p. 10, what is the status of the Distribution System Impact Study to be conducted by The United Illuminating Company?**

The United Illuminating Company (“UI”) is currently conducting the Impact Study which commenced on October 15th, 2021. GCE is expecting a reply from United Illuminating Company by November 29, 2021.

**22. What is the line voltage of the electrical interconnections?**

As the impact study is not complete the interconnection voltage is not yet finalized. However, it is the Petitioner's expectation that the project will connect to the existing 13.8 KV distribution feeder.

**23. Is the project interconnection required to be reviewed by ISO-NE?**

As alluded to in the Response to Interrogatory 21, the Petitioner has filed interconnection applications with UI and the impact interconnection studies are underway. As part of the UI study process, ISO will review the project and confirm that no impact to the transmission system is expected, however there are no ISO direct studies required for the project.

**24. Referring to Petition p. 10 and Petition Appendix B -Electrical Drawings- the drawings depict a solar facility layout that is different from the Site Plans provided in Appendix A. If available, provide revised electrical drawings.**

Updated electrical drawings are not yet available. The updated electrical designs will be completed after results from the Impact Study are provided to GCE from UI.

**25. Referring to page 10 of the Petition, would any off-site upgrades to electrical distribution from the proposed site to Woodmont Substation be required? Where would the demarcation points (of change of control/responsibility from Petitioner to UI) be located on the electrical interconnection for the project?**

As alluded to in the Response to Interrogatory 21, the Impact Study has not been completed by UI, thus, no final determinations on upgrades has been made. It is not expected that any upgrades to the substation are required. There may be a need to add updated protection devices or reclosers but those items will be within the existing framework of the current distribution grid. The demarcation point between project and United Illuminating ownership is the production meters which are located on the project site.

**Public Safety**

**26. Would the project comply with the National Electrical Code, the National Electrical Safety Code and any applicable National Fire Protection Association (NFPA) codes and standards, including, but not limited to, NFPA Code Section 11.12.3.**



Yes, the project will comply with the National Electrical Code, the National Electrical Safety Code, and applicable NFPA codes and standards, including NFPA Code Section 11.12.3.

**27. What impacts would crop production within the fenced solar facility site have on fire safety?**

It is not anticipated that crop production within the fenced solar facility will have any impact on fire safety. For facilities without crop production, grasses or other vegetation is customarily grown under panels and between panel rows. So long as this grass is alive and growing, there is not anticipated to be any associated adverse effect with respect to fire safety. GCE anticipates no discernable difference for areas where crops will be growing. As articulated in the Petition, these crop-growing areas will have crops growing on them for part of the year, and in the seasons where crops are not being grown, ground cover will be established. From a fire safety standpoint, no difference is anticipated between areas where crops are being grown versus grassy areas in solar arrays.

**28. Would the use of garden/crop equipment in close proximity to solar panels and inverters pose any hazard to farmers?**

Leasing farmers would be given an electrical safety plan to follow. The plan is not finalized but typically would instruct the farmers to maintain safe separation distance from the above ground main service lines which include combined DC boxes at central string of inverters and transformers. The DC circuit lines will be underground and parallel to a string of panels. These conductive lines will be two to three feet below the ground thus they would not pose above ground hazard to farmers. Additionally the farmers would typically be instructed to not open any electrical boxes and call the O&M team in case of any concerns.

**29. Please explain how the Farm Co-use Plan for areas within the fenced solar facility site is consistent with the Council's White Paper on the Security of Siting Energy Facilities, dated October 8, 2009.**

The Council's White Paper focuses "mainly on physical threats, as opposed to cyber threats, to electric generating and transmission facilities and on threats that are intentional, ranging from simple trespassing to vandalism to dedicated acts of sabotage." As the Council's White Paper also points out, many of the security standards for such facilities are voluntary. However, the Council's White Paper makes it clear that four areas of potential concern are to be focused on when evaluating security. These are planning, preparedness, response and recovery. These concerns will be discussed in turn as they relate to the Project.

With respect to planning, the first step has already been undertaken – identifying the physical vulnerabilities most likely to pose a security threat. It appears that the Council has identified that the Farm Co-use Plan may allow other individuals access to the solar array, and this may present

an increased security risk. Thus, it is incumbent upon GCE to prepare for such risk. GCE shall do so by performing due diligence activities on prospective farmers to ensure their suitability to enter the site. The farmers will also be provided with training regarding which areas to avoid in the Project array, and who to contact should they see something that is amiss at the Project.

With respect to response, GCE will be monitoring the Project's performance remotely, so that GCE will be in a position to respond quickly in the event that a response is needed. Moreover, by having the farmers present at the site, GCE will have more frequent human contact at the site, which may allow for GCE to receive updates on potential issues before such issues would be called to attention through the regular monitoring that GCE undertakes. In other words, the Farm Co-use Plan should allow GCE to be more proactive in its responses, or at least as responsive as it would otherwise.

The final prong of the Council's White Paper deals with response. If GCE becomes aware of a security issue, it will respond promptly, as it would if it received notice of vandalism or intentional sabotage. Should the Council so desire, GCE would be willing to provide the Council with a report of any security incidents that result from the agricultural uses that are being proposed for the Project Site.

**30. What is the purpose the perimeter fence? Can fencing only be installed around the inverters and other high-voltage equipment?**

The perimeter fence is required per NEC code. The code requires the fence extend around the entire array area, not just the inverter or high voltage equipment.

**31. Does the lease agreement with the landowner indemnify the landowner and/or GCE from liability resulting from accidents that could occur by allowing access to the secured solar facility site to third party farmers?**

The liability related to accidents from farming activity will be covered by sublease agreements with any tenant farmers that are conducting agricultural operations at the Project Site. As of this point in the development process, however, such agreements are not yet in place.

**32. Who is responsible for ensuring the security gate to the fenced solar facility site is locked each night?**

As is typical for all solar projects there will be either a keyed or coded lock on the gate. Access (key or code) will only be granted to personnel who are allowed to be on site as well as first responders. In order for access to be given to individuals who are not first responders (such as agricultural users), those individuals will have to agree to the terms of access which include always maintaining a safe environment and that the gate is locked at all times except for during access. Thus, while the Project owner is ultimately responsible for ensuring access and proper

gate locking, it will also be the responsibility of those that access is granted to follow the rules and make sure the gate stays locked and the site secure.

**33. Referring to Petition p. 24, what is the projected noise level at the nearest residence?**

Using the starting inverter specification for audible noise of 55 dBA at 1 meter (Appendix B of this Petition), the applicable calculation is that change in decibels equals 20 times the logarithm of distance 1 divided by distance 2. The current plan displays a closest distance of approximately 363 feet (110 meters) for electrical equipment to a residential property line (353 Old Tavern Road, to the south). It is therefore anticipated that the loudest audible noise from an inverter to a residential property line will be approximately 14 dBA. The current plan displays a closest distance of approximately 482 feet (147 meters) for electrical equipment to a residential building (353 Old Tavern Road, to the south). It is therefore anticipated that the loudest audible noise from an inverter to a residential building will be approximately 12 dBA. Relating these decibel levels to the allowable night decibel level by CTDEEP noise standards (51 dBA as noted in Section 6.3.1 of this Petition's narrative), the Project will meet the applicable CTDEEP noise standards.

**34. Referring to Petition Appendix L, what is the nearest federally-obligated airport? Does the FAA notice screening tool include glare hazards? If not, explain if a glare analysis is necessary.**

The nearest Federally-obligated airport is Tweed-New Haven Airport, which is 10 miles from the Project according to the NEPAssist tool. The FAA notice screening tool does not evaluate glare hazards.

**35. With regard to emergency response:**

**a. Is outreach and/or training proposed for local emergency responders in the event of a fire or other emergency at the site?**

Typically, when a solar project is nearing completion and final inspection, the respective local Fire Marshal will perform a site walk to inspect signage, site access (in case of emergency), emergency shutoff, disconnect locations, and anything relevant to their response of an event. Accordingly, for the instant Project, GCE will offer to host such a site walk, training, and Project design review with the appropriate East Windsor officials, and expects that such a walkthrough and training will occur.

**b. How would site access be ensured for emergency responders?**

Emergency responders will be provided keys or the code to all access gates onsite.

- c. **In the event of a brush or electrical fire, how would the Petitioner mitigate potential electric hazards that could be encountered by emergency response personnel?**

GCE will work with emergency response personnel to provide training on understanding Project details, access, disconnect locations, and electrical functioning of the system. Hazard mitigation includes designing and building the Project to code and managing brush on site.

- d. **Could the entire facility be shut down and de-energized in the event of a fire? If so, how?**

Yes, the entire facility can be shut down via the main switch. This information will be included during the training with emergency responders.

### **Environmental**

36. **If there are private water wells on site or in the vicinity of the site, how would the petitioner protect the wells and/or water quality from construction impacts related to post driving/drilling?**

Based upon a review of Connecticut Department of Health (“DPH”) System Service Areas GIS layer, it is anticipated that all properties surrounding the Project are serviced by public water. The parcel itself does have a well present on the property, but as of this writing, that well is not used for any purpose at the site, and not for drinking water. It is possible that there are wells in the area that are not registered with DPH. However, given what is known about the location of the wells in the area and the conditions on site, it not anticipated that the post driving/drilling will have an adverse impact on area wells.

37. **Referring to Appendix E, the ESA Report found 2 areas of concern (AOC-1: Agricultural Use and AOC-2: Farm Equipment Area) within the study area. DEEP defines areas of concern as “locations or area at a site where hazardous waste and/or hazardous substances (including petroleum products) have been or may have been used, stored, treated, handled, disposed, spilled and/or released to the environment.” AOC-1 is characterized as subject to historic pesticide use. AOC-2 is characterized as containing abandoned farm equipment and other related debris.**

- a. **Identify each AOC and its location in relation to the solar project site on a map; and**

As mentioned in the Response to Interrogatory 9, a map has been prepared and is included with this response as Exhibit A. With respect to the Phase I ESA report in Appendix E of this Petition, AOC-1 (agricultural use, possibility of historic pesticide use), exists across the Site. AOC-2 (dilapidated farm equipment) is currently located to the southwest of the Project area and outside the proposed work limits. AOC-2 is specifically called out in Exhibit A.

**b. Explain how these areas will be managed/addressed during construction of the solar facility.**

Regarding AOC-1 (agricultural use, possibility of historic pesticide use), it is the Petitioner's intention to create a Spill Prevention, Control and Countermeasure Plan ("SPCC") and Soil Contact Best Practices Plan for construction at the Site once an EPC contractor is selected, and request that the Council include this as a D&M Plan condition. Regarding AOC-2 (dilapidated farm equipment), the Project does not propose to disturb the existing farm equipment and accordingly, no management plan is necessary.

**38. What effect would runoff from the drip edge of each row of solar panels have on the site drainage patterns? Would channelization below the drip edge be expected? If not, why not?**

Due to the fact that the development area is not graded consistently to the east or to the west in any location, it is not anticipated that runoff from the panel drip edges will channelize or have an effect on Site drainage patterns.

**39. Referring to Petition p. 19, what project changes, if any, were recommended by the DEEP Stormwater Program?**

On June 21, 2021, VHB and GCE had a meeting with CT DEEP Stormwater Program personnel. Project changes were not requested at that meeting. Mr. Stone of the CT DEEP Stormwater Program requested historical information regarding the formation of the isolated Wetland 3 using historical aerial photographs and a narrative of the history of the farmland to justify the use of 50-foot buffer for the isolated wetland. VHB intends to provide above requested information as part the Stormwater Construction Permit Submission for this project.

**40. Referring to petition p. 19, is the Project site located on a topographic mound which influences surface water drainage patterns to the surrounding wetlands? If so, what was DEEP's concern about constructing the site on this feature?**

The "mound" in the northeast corner of the Project area is not a significant Site geological feature which would affect surface water drainage patterns to surrounding wetlands any differently than other topographic features. As part of the Project, it is proposed to include a system of swales and permanent stormwater basins to collect and treat stormwater runoff prior to discharge to the surrounding wetlands.

**41. Due to the high water table at the site and the retention of water within the stormwater basins for extended periods, what measures can be deployed to prevent the stormwater basins from acting as decoy pools for vernal obligate species?**

It is most common that wildlife exclusionary barriers (E-fence, etc.) be incorporated into the long-term site development plans for stormwater basins located at Sites with known vernal pools.

42. **Due to the presence of vernal pool species and state-listed turtles in adjacent wooded areas, can erosion control blankets composed of all natural fiber/jute be used at the site?**

Yes, the site plans indicate using a stapled meshless (or netless) biodegradable erosion control blanket (ECB) as a potential alternative to applying thermally treated wood bonded fiber matrix (BFM) mulch with tackifier, if needed. The practice of using a netless ECB is a wildlife friendly measure encouraged by the U.S. Fish and Wildlife Service (USFWS) Michigan Ecological Services Field Office as they promote the use of a variety of wildlife friendly erosion control products instead of degradable, photodegradable, UV-degradable, oxo-degradable, oxo-biodegradable plastic netting or products containing polypropylene, nylon, polyethylene, or polyester.

Specifically, the USFWS recommends:

- Use natural fiber netting or no netting
- Materials should be 100% biodegradable
- Use loose weave, non-welded, movable jointed netting (leno or gauze)
- Rectangle (elongated) mesh is better than square
- Stake erosion blankets and mats to the ground so that all edges are secured with wooden stakes
- Bury edges of blankets and mats
- Remove ECPs as soon as they are no longer needed

Based on the use of the meshless (no netting) ECB as designed, GCE believes that the Project has been designed in accordance with the recommended wildlife friendly erosion control measures which are not intended or designed to harm any wildlife.

43. **Referring to Site Plan C-5.0 - Wildlife Protection notes, there is no provision for site work restrictions protective of the Brown Thrasher as recommended in the DEEP Natural Diversity Database letter dated November 7, 2020. Explain why this recommendation was not incorporated into the Wildlife Protection Plan.**

The Project does not include disturbances to shrubby habitat or hedgerows, based on the proposal to develop within the active farm field. It is the Petitioner's opinion that these activities away from the shrub habitat and hedgerows comply with the intent of the NDDB Final Determination protection measures for this species. The Project area has been an active farm for

years, thus the short-term construction period within the fields is not expected to present any additional consequence to this species.

The Project team reached out to CTDEEP Wildlife Division on March 31, 2021 with a written response and request for concurrence on this matter, however no response was received. Contact with CTDEEP Wildlife Division was attempted again on November 4, 2021.

**44. Referring to Petition pp. 30-31, has the DEEP Stormwater Program provided further information/recommendation concerning the buffer to Wetland 3?**

There has not been further information/recommendation provided by CTDEEP Stormwater staff concerning the buffer to Wetland 3 since this Petition submission date. During the referenced phone conference call between the Petitioner and their consultant and CTDEEP Stormwater staff on June 21, 2021, CTDEEP Stormwater staff verbally agreed in theory that Wetland 3, which is actively disturbed year-round by current farm operations, could support a reduced buffer distance to solar panels, but noted that a more comprehensive review of this wetland and the site plan as a whole would be needed to accurately determine this and that review would take place during the CTDEEP Stormwater General Permit review process which has not been initiated.

In the event that it is determined that a 100-foot buffer must be maintained between solar panels and Wetland 3, a minimum of approximately 650 panels (approximately 12 % of the overall Project) would need to be removed.

**45. Referring to Appendix N, the Project Map dated June 16, 2021, shows Wetland 3 outside of the Project perimeter fence. The site plans in Appendix A dated September 29, 2021 shows Wetland 3 within the Project perimeter fence. What was the reason for this change? Can the perimeter fence be designed to exclude this wetland from the fenced solar array area?**

The site plans in Appendix A dated September 29, 2021 were revised to locate Wetland 3 within the limits of the perimeter fence in an effort to place the responsibility on the Petitioner to protect the wetland from disturbance throughout the lifespan of the Project. The perimeter fence can be designed to exclude this wetland from the fenced solar array area alternatively, which would not affect the construction or maintenance of the Project, or the Project's security and concurrence with national codes and standards.

**46. If Wetland 3 cannot be removed from the fenced solar array area, what type of restoration/vegetation management would occur within the 50-foot wetland buffer?**

As described in Interrogatory Response #45, the site perimeter fence can be revised to exclude Wetland 3 from the Project array. Notwithstanding that fact, it would be proposed to re-vegetate

this 50-foot buffer (from current farm operations) around the wetland prior to construction and to protect the wetland buffer with siltation barriers during construction.

47. **Referring the Council on Environmental Quality comments dated October 27, 2021, can the Project be designed to include 100-foot wetland buffers from the limits of disturbance?**

Notwithstanding the proposed reduced buffer distance of solar panels to Wetland 3 (which is actively disturbed by ongoing farm operations currently), the Project proposes to meet the CTDEEP Stormwater General Permit requirements of providing 100-foot wetland buffers for solar panels and 50-foot wetland buffers for other disturbances. While the Project could be redesigned to maintain 100-foot wetland buffers for all disturbance, it is the Petitioner's position that the proposed stormwater management system and the Project's observance of the CTDEEP Stormwater General Permit buffers noted previously to the adjacent forested wetland systems on the Site will be adequate in protecting on-site and off-site resources. Generally, the site perimeter fence and the proposed system of swales and stormwater basins are the only disturbances proposed within 100-feet of the adjacent forested wetland systems; however, relocation of these items would result in a loss of total panels and system output which to the point that the Project may not be financially viable to construct.

48. **The correspondence in Petition Appendix N states the aisles between the solar arrays have been widened to 14 feet to allow for crop production. What was the initial aisle row spacing for this project? If the narrower aisle width was used, by how many acres would the Project footprint be reduced?**

The solar array has been widened from 13.5 feet to 14 feet in order to allow more farming activities and create more pervious surface based on information found in the CTDEEP Stormwater General Permit by staying below 50% Ground Cover Ratio (GCR). The narrower aisle width is no longer preferred because it would reduce the crop production area and increase the GCR above 50% by increasing the ratio of impervious surface on the developable area.

49. **How was it determined that 14-foot wide aisles is the minimum space to support crop production? Is it anticipated crops would be grown across the 14-foot wide aisle or would there be offsets from the solar panel edges?**

Fourteen-foot inter-row-spacing (aisle) was determined to optimize the system design and crop production area. The 14-foot inter-row-spacing will provide sufficient sunlight in the solar window between 10:00 am and 2:00 pm so that the crops may be grown across the aisles. Moreover, the 14-foot inter-row-spacing will allow Greenskies to achieve the desired system size simultaneously.



50. **Would the larger project footprint to accommodate 14-foot wide aisles for crop production require additional stormwater detention when compared to a project with narrower aisles?**

It is the Petitioner's contention that no regulations or publications have been prescribed by the State to date relating the ground-cover ratio (ratio of top-down panel width to top-down panel width plus aisle width) to hydrologic pre- to post-construction peak rate of runoff computations. Secondly, for the sizing of sediment traps during construction, the entire Project area has conservatively been assumed to be "disturbed fallow soil" which is anecdotally how CTDEEP views the construction of these facilities. A change in the proposed ground-cover ratio or aisle width would have no effect on this computation. Lastly, CTDEEP Stormwater General Permit does note that if the ground cover ratio exceeds 50% (top-down panel width exceeds aisle width), that the panels must be considered impervious for the sake of computing required Water Quality Volume. Assuming a 50% ground-cover ratio and considering the panels to be impervious, the stormwater basins as currently designed would be large enough to provide the required Water Quality Volume numbers without being upsized. However, any higher ground-cover ratio would require upsizing stormwater basins.

51. **Referring to the Stormwater Report (Petition Appendix F), was the 8.5 acres of crop production within the project footprint accounted for within the post-construction calculations? Explain.**

The potential for crop production was not included in the Stormwater Report dated September 29, 2021 (Petition Appendix F). It is not anticipated that drainage patterns would be altered by incorporating crop production within the fenced solar facility. A HydroCAD output revised to include the assumption that the clear aisle width space between rows of panels within the perimeter fence may be row crops is enclosed herewith as Exhibit B. This exhibit displays that the Project would continue to meet all State water quality treatment, stream channel protection, and pre-to-post peak rate of runoff mitigation requirements. It is the Petitioner's understanding that crops will not be grown under the panels themselves.

52. **Why is the area within the fenced solar facility site designated for third party new farmers instead of an area outside of it? Can the Treat Farm owner use the area within the fenced solar array for their own agricultural production?**

The Treat Farm Owners have sufficient land outside of the fence line to hit their crop goals. Given the ability to achieve crop goals in the land that remains outside the Project fenceline, and due to a lack of resources for more agricultural operations, the Treat Farm owners have decided that it would not be feasible for them grow in that area at this time.

53. **Have the details of the Farm 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?**

The finalization of the Farm Co-Use Plan will start after permit approval because GCE anticipates that multiple growers who need land to grow their crops will use the project site. USDA NRCS is optimistic that such growers can be found and has stated that “it would not be too difficult to find an enthusiastic person who is up for the challenge and hard work, especially being so close to New Haven.”

Once the growers are selected after interviewing, GCE will work with the growers to ascertain how many rows/amount of land each grower can effectively manage to attain their goals. If necessary, GCE can connect the new farmers with NRCS to assist in the preparation of their business plans.

Once GCE and NRCS have identified/selected the number of initial growers/farmers to use the leased area and know what type of crop/produce/cut flowers etc. will be planted in the 14- ft row spacing and how many rows each grower would like, GCE will overlay that information with the design of the Project. There are approximately 34 rows spanning the entire solar array, however, not all the rows are designed identically. Because the proposed design is not homogenous, the number of panels per row differs for some of the rows. After the number of growers/farmers have been identified, GCE and NRCS will finalize the Farm Co-Use Plan details for the leased solar area.

54. **Has the Petitioner developed details of the Farm Co-use Plan irrigation system mentioned in the Department of Agriculture correspondence dated October 6, 2021? If so, provide detail.**

The details for the proposed irrigation system have not yet been developed. It would be premature to develop the full details for that design until the final project details have been finalized.

55. **Referring the Council on Environmental Quality comments dated October 27, 2021, would the diversion of water from natural runoff affect the adjacent wetlands/vernal pools?**

Care was taken in the development of the stormwater management plan for the Project to maintain existing drainage patterns to the maximum extents feasible while also providing the State’s required hydrologic pre- to post-construction peak rate of runoff mitigation, stream channel protection, and water quality volume. In the western portions of the Project, stormwater basins #1 and #2 were located in areas where stormwater flows naturally channelize prior to entering the forested wetland system. In the eastern portions of the Project, the system of swales, basins, and basin outlets were laid out to preserve drainage patterns to the eastern forested wetland system to the maximum extents feasible. Notwithstanding a very small amount of

evapotranspiration, any stormwater runoff which does not drain over the proposed riprap spillways and overland into the forested wetland systems will be infiltrated through the bottom of the basins in some capacity, which will ultimately continue to reach and serve the groundwater system of the forested wetlands. In conclusion, it is the Petitioner's contention that the Project does not propose to divert natural runoff from the forested wetlands.

56. **Does GCE intend to offer free use of the solar facility site to the third party new farmers or would there be a sub-lease with monetary terms? Does the lease agreement with the property owner permit sub-leasing?**

GCE has no plans to charge for farming site use within the solar facility to the third-party new farmers. If the farmers desire any additional services, such as irrigation for example, GCE reserves the right to charge farmers for such additional services. The lease agreement allows for sub-leasing by GCE to others.

57. **Referring to Petition Appendix G, the SHPO correspondence of September 21, 2021 (which requested plantings behind the English barn on the site property) was based on a review of a Phase 1A/1B Survey that included a larger project footprint than what is now proposed and that was in close proximity to the barn. Due to a revised project layout that now includes a tree farm, larger trees, crops and outbuildings between the proposed solar array and the barn, is a landscape plan still necessary to screen the barn from the solar array?**

The Council is correct in noting that the Phase 1A/1B Survey that was provided to SHPO included a larger project footprint than what is currently being contemplated, and GCE acknowledges that conditions have changed since that initial correspondence was transmitted to SHPO. Accordingly, GCE believes that those changed conditions should affect whether a landscape plan is needed for the site, and if so, what the scope of such a final plan would be. GCE believes that some landscape screening will be needed, but has reached out to SHPO to discuss what the appropriate scope of screening should be. GCE will work with SHPO to develop an acceptable screening plan that accomplishes the goal and is in line with the requirements of the solar project as well as the realities of the site details. Should the Council so desire, GCE can submit the final proposed plan to the Council once work with SHPO on the plan is completed.

58. **Is the English barn within the leased site boundary?**

No.

59. **Would the solar facility be visible from Old Tavern Road? Is Old Tavern Road a town-designated scenic road?**

It is anticipated that the solar facility would be visible in a very small capacity from Old Tavern Road. The closest point of the facility is approximately 500 feet or more from Old Tavern Road and this buffer distance contains existing vegetation and outbuildings which would largely screen any views of the facility from the street.

Old Tavern Road is not a town-designated scenic road.

60. **Petition Appendix K contains several sight line drawings from abutting properties. Would other developed residential properties on Old Tavern Road and Peck Lane that did not have a sight line analysis be able to view the proposed facility?**

It is anticipated that other residential properties on Old Tavern Road and Peck Lane would have similar, partial, impeded views of the facility due to a combination of distance, topography, and existing native vegetation (including the forested wetland system).

61. **Referring to Petition p. 25, what is the status of the screening mitigation plan to reduce views of the facility from abutting properties? Which abutting properties would be incorporated into the screening mitigation plan?**

The petitioner has not yet discovered or become aware of any need to implement a screening mitigation plan for this project aside from the ongoing work with SHPO referenced in the Response to Interrogatory 57.

62. **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:**

- a. **wetlands, watercourses and vernal pools;**
- b. **forest/forest edge areas;**
- c. **agricultural soil areas;**
- d. **sloping terrain;**
- e. **proposed stormwater control features;**
- f. **nearest residences;**
- g. **Site access and interior access road(s);**
- h. **utility pads/electrical interconnection(s);**

- i. clearing limits/property lines;
- j. mitigation areas; and
- k. 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.**

A photo log exhibit has been prepared and is included herewith as Exhibit C.

### **Facility Construction**

- 63. What are the cut and fills for the proposed project? If there is excess cut, where would it be disposed of?**

No cut and fill are proposed within the solar panel array for the purposes of tolerable racking slope percentages. It is anticipated that approximately 1,500 cubic yards of material will be cut and 500 cubic yards of material will be filled to construct the Project's proposed stormwater basins and swales. It is proposed that any excess material will be handled elsewhere on the site by the landowner.

- 64. Would any fuels be stored on site during construction? If so, provide fuel storage/spill prevention control details.**

It is anticipated that a minimal amount of fuel will be stored on site during construction. During those periods when fuel is stored on site during construction, the fuel will be stored in accordance with the Modified Spill Prevention, Control and Countermeasure Plan (SPCC) that will be prepared as discussed in the Response to Interrogatory 37(b).

### **Maintenance Questions**

- 65. 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.**

No. Accumulation of snow will affect energy output, however, this has been factored into the production analysis. There are no anticipated circumstances in which GCE would remove snow from panels. Snow would be removed from inverters, switch gears for access for corrective maintenance.

**66. Would pesticides/herbicides be used within the crop production areas of the fenced solar facility? If so, is there a recommended distance to water resources such as wetlands and stormwater basins or to habitat supporting State-listed species where these substances should not be applied?**

It is not anticipated that pesticides or herbicides will be used by the project. Should farmers growing crops wish to utilize pesticides or herbicides, GCE will ensure that the farmers utilize such materials in accordance with requirements of the landowners and all applicable laws and regulations, including, but not limited to, the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), codified at 7 U.S.C. § 136 *et seq.*

**67. Would the Petitioner store any replacement modules on-site? If so, indicate where the modules would be stored.**

No, replacement modules will not be stored on-site.

**68. In the lease agreement with the property owner, are there any provisions related to site restoration at the end of the project's useful life? If so, please provide any such provisions.**

Yes, the lease between the project and the property owner requires GCE to remove the elements of the project. This section specifically states that the Tenant shall "Remove the Solar Farm, including the Site Improvements and Infrastructure owned by Tenant and solar panels owned by third parties. Such removal shall be completed within six (6) months following the expiration of the full term of this Agreement, during which time Tenant shall be subject to all terms and conditions in this Lease with respect to access and said removal as if still a tenant.

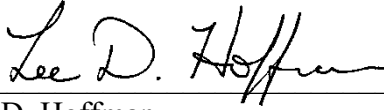
**69. Referring to Petition Appendix D, submit the Toxicity Characteristic Leaching Procedure (TCLP) test information that indicates the selected solar modules would not be characterized as hazardous waste at the time of disposal under current regulatory criteria.**

The manufacturer of the proposed solar panels has not yet been selected, so no TCLP testing has been conducted. However, GCE agrees that it will install solar panels that would not be

classified as hazardous waste under the TCLP methodology as of the time of the panel's installation.

Respectfully submitted,

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