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October 5, 2020

**VIA ELECTRONIC MAIL**

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

**Re: Petition 1422 - 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 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut and associated electrical interconnection.**

Dear Ms. Bachman:

I am writing on behalf of my client, Greenskies Clean Energy, LLC ("GCE"), in connection with the above-referenced Petition. With this letter, I am enclosing GCE's responses to the Interrogatories that were directed to GCE by the Connecticut Siting Council on September 21, 2020. Given the size of certain attachments, they have been placed on a separate file sharing site. The exhibits to these interrogatory responses can be found by visiting the following link: https://cfus.app.box.com/s/3zrk9yvhta62mcugkdz2paxn2c2r7vth/file/727049122067.

Should you have any questions concerning this submittal, please contact me at your convenience. I certify that copies of this submittal have been made to all parties on the Petition's Service List as of this date.

Sincerely,

Lee D. Hoffman

Lee D. Hoffman

Enclosures

**STATE OF CONNECTICUT**
**CONNECTICUT SITING COUNCIL**

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|---|---|
| **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 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut and associated electrical interconnection.** | **Petition No. 1422**<br><br>**October 5, 2020** |

**GREENSKIES CLEAN ENERGY, LLC'S RESPONSES TO THE SEPTEMBER 21, 2020 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 September 21, 2020.

## Project Development

1. **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 East Windsor Building Department. It is anticipated that GCE will hold the General Permit, and the Project's contractor[1] will hold the building and electrical permits. The Project will also require a review/determination from the FAA due to its proximity to Skylark Airpark, a small airport located approximately 3.65 miles northwest of the Project site.

2. **Is the project subject to a virtual net metering (VNM) agreement? If yes, with which entities? Would such VNM agreement(s) be for the full 4.99 MW AC output?**

   GCE objects to this interrogatory in that it is requesting information that is beyond the scope of the jurisdiction of the Siting Council for a petition for declaratory ruling pursuant to Conn. Gen. Stat. §16-50k. Subject to the foregoing objection, the Project is currently not subject to a VNM agreement.

[1] Once final civil and electrical designs are complete, a contractor will be selected.

3. **Would Greenskies Clean Energy LLC (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 Market.

**Proposed Site**

4. **In the lease agreement with the landowner, 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.**

   Pursuant to the lease agreement, GCE is the entity responsible for removing the solar farm, including the site improvements, infrastructure, and solar panels. GCE will have six (6) months to complete this removal and return the site to its original state at the expiration of the lease agreement.

5. **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?**

   GCE objects to this interrogatory in that it is requesting information that is beyond the scope of the jurisdiction of the Siting Council for a petition for declaratory ruling pursuant to Conn. Gen. Stat. §16-50k. Subject to the foregoing objection, GCE states that the vast majority of the Project area is not subject to the PA 490 program, and that less than four acres of the farm itself is part of the Public Act 490 Program. GCE obtained this information from the Town Assessor's Office and cannot tell at this time whether any of these four acres are included within the boundaries of the proposed Project. Given the small nature of the area, involved, however, GCE anticipates that the effect of the use of the area for the Project would be minimal.

6. **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?**

   No, the State of Connecticut DOAg has not purchased any development rights for the Project Site and no portion of the Site is part of the State Program for the Preservation of Agricultural Land.

7. **Referencing the August 27, 2020 letter from DOAg, page 2, second paragraph, DOAg references multiple considerations for the proposed agricultural co-use of rotational sheep grazing on the site. Please respond to such considerations as noted by DOAg.**

   Sheep grazing on solar sites has been practiced throughout the United States and Europe for years without incident. Proactive measures will be taken to ensure that all equipment on site is inaccessible to the sheep. GCE intends to partner with a professional livestock farmer to manage the sheep on site. Additional amenities, such as shelter, interior fencing etc., will be added to the final design at the direction of the farmer. All GCE employees or subcontractors that will perform routine maintenance on site will undergo training to

ensure that routine maintenance and sheep grazing can occur alongside each other. The Site will be fenced in and signage will be placed throughout the Site to notify neighbors, farm workers, and other individuals that may be nearby that sheep are present onsite. In addition, the Project will be designed so that the solar arrays have a height that allow the sheep to pass underneath (the lowest edge of the panels will be at least two feet above the ground) and cables and trays will be secured such that these structures are inaccessible to the sheep.

8. **Would all components of the solar photovoltaic panels be recyclable? Could components of panels be reused to make photovoltaic cells or whole panels be used to make new solar panels at the end of the life of this project? Could the solar panels and/or associated components be repurposed for a different use or product?**

   Glass, plastic, aluminum and silicon primarily comprise photovoltaic panels, and they are all recyclable materials that can be repurposed to create new panels or other products. Each panel contains a small amount of non-recyclable material—however, the recyclability of such materials may change by the time the Project is decommissioned.

9. **Provide the distance, direction and address of the nearest property line and nearest off-site residence from the solar field perimeter fence.**

   The nearest off-site residence is 62 Rockville Rd, located approximately 165 ft from the perimeter fence east of the Project site.

## Energy Output

10. **Have electrical loss assumptions been factored into the output of the facility? What is the output (MW AC) at the point of interconnection?**

    Yes, standard loss factors have been factored into the Facility's system production analysis. At the point of interconnection, the output is anticipated to be 4.9 MW AC.

11. **What is the projected capacity factor (expressed as a percentage) for the proposed project? For clarity, is this capacity factor based on a ratio of AC MWh to AC MWh, or a ratio of AC MWh to DC MWh?**

    The projected capacity factor for the proposed Project is 15.16% percent. This is based on AC MWh to DC MWh, and is expressed as:

    Capacity factor (%) = (production in kWh) / (system size kWdc * 8760) * (100)

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

    The power output of the solar panels will decline at approximately 0.5% per year.

13. **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 low emission renewable energy credit (LREC) contract.**

GCE objects to this interrogatory in that it is requesting information that is beyond the scope of the jurisdiction of the Siting Council for a petition for declaratory ruling pursuant to Conn. Gen. Stat. §16-50k. Subject to the foregoing objection, GCE states that the Project has not been designed to accommodate a potential future battery storage system.

14. **Would the impact of soft or hard shading reduce the energy production of the proposed project? If so, was this included in the proposed project's capacity factor?**

Yes, any shading will reduce the Facility's energy production. However, expected inter-row shading has been factored into the Project's production analysis. An assumed loss for shading caused by debris, such as dirt, leaves, or snow on the module surface has also been factored into said analysis

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

GCE objects to this interrogatory in that it is requesting information that is beyond the scope of the jurisdiction of the Siting Council for a petition for declaratory ruling pursuant to Conn. Gen. Stat. §16-50k. Subject to the foregoing objection, GCE states that the Project cannot be designed to serve as a microgrid. This is credited to the fact that the respective utility company's interconnection application does not include batteries or any of the infrastructure that is necessary for the Project to provide microgrid function. Additionally, the subject revenue contracts do not include microgrid effects.

16. **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?**

Yes; throughout the Facility's array, sections of modules are connected to multiple inverters—thereby ensuring that an inoperable inverter will not impede the functionality of the other inverters.

17. **Do solar facilities present a challenge for the independent system operator for balancing loads and generation (to maintain the system frequency) due to the changing (but not controlled) megawatt output of a solar facility? What technology or operational protocols could be employed to mitigate any challenges?**

Generally speaking, large solar facilities can present grid management issues for the independent system operator ("ISO") or transmission operator; however, those issues are reviewed on a site-by-site basis. Eversource concluded in its relevant Impact Study that the Project will not cause any adverse impacts to customer voltages or power quality and will not cause excess capacitor bank operations.

**Site Components and Solar Equipment**

18. **What are the minimum and maximum overall heights of the solar panels above grade?**

The minimum proposed clearance height from finished grade to the bottom edge of a panel is approximately two (2) feet. As currently designed, the top edge of the solar panels is proposed to be approximately 6'7" higher than the bottom edge. Both of these items are subject to change, however, pending final equipment selection and electrical

design. A detail of the panel and racking system has been added to the Site Plans Sheet C-6-1, attached hereto as Exhibit A.

19. **What is the length of the driven posts and to what depth would the posts be driven into the ground to provide the required structural stability?**

The typical embedment lengths of the posts are between six and twelve (6-12) feet. The exact length will be determined after a geotechnical analysis is performed prior to construction of the Project.

20. **How many panels will each rack hold?**

Racking structures typically hold ten (10) to twelve (12) panels per rack. The exact number will depend on which vendor GCE ultimately chooses to purchase racking from during procurement.

21. **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, e.g. sheep?**

Wiring will be installed both on the underside of the panels and underground, thereby protecting it from UV light and weather exposure. The wire will be rated for the environment and installed in line with national electrical code. Metal casing, high strength plastic mesh, or another alternative will be included in the final design to protect the wiring from sheep.

22. **Referencing Appendix A, Drawing C-3.1, would the aisle width (or spacing from panel edge to panel edge) be a uniform 14.6 feet for the entire project? What is the minimum aisle width at which the solar panel rows could be installed?**

The aisle width is consistently 14.6 feet throughout the entire Project.

23. **Referencing Appendix G of the Petition, Stormwater Report, page 9, the Petitioner states, "No portions of the Site lie within the Federal Emergency Management Agency (FEMA) mapped 1% annual chance flood A/AE flood zones…" Are any portions of the proposed project area located within a 500-year flood zone? If yes, how would that affect the proposed project?**

No part of the Project Area is located within a 500-year flood zone.

## Interconnection

24. **What is the line voltage of the electrical interconnection? Would the proposed electrical interconnection route remain underground west of the proposed riser pole on Drawing C-3.2 and then turn to overhead east of the riser pole? How tall would the riser pole be? Would that be the only pole on the subject property?**

The line voltage of electrical interconnection is 13.8 kV. The proposed electrical interconnection route would remain underground until it reaches the riser pole on Drawing C 3.2, at which point it turns to overhead. The average height of a riser pole is

34 feet from the ground. There will be three riser poles on the property; one for each separately metered system (*see* Electrical Drawings provided for in Appendix B).

25. **Is existing electrical distribution on Barber Hill Road single-phase or three-phase?**

The existing electrical distribution on Barber Hill Road is single-phase.

26. **Would any required off-site upgrades to electrical distribution from the proposed site to Barbour Hill Substation be the responsibility of Eversource to secure permitting? Where would the demarcation point (of change of control/responsibility from Petitioner to Eversource) be located on the electrical interconnection?**

The Petitioner anticipates that a three-phase line extension of approximately 1110 feet down Barber Hill Rd, and minor upgrades to the Barbour Hill 23J36-2 circuit breaker will be required. It is the responsibility of Eversource to secure permitting for any such upgrades. The demarcation point is at the meters on the riser poles.

**Public Safety**

27. **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 would comply with the National Electrical Code, the National Electrical Safety Code and all applicable National Fire Protection Association codes and standards.

28. **Referencing pages 20 and 21 of the Petition, the Petitioner notes the Town of Stonington's Nuisance Ordinance. Please provide the applicable information relative to the Town of East Windsor, and indicate how it may affect the proposed project construction.**

East Windsor's Noise Ordinance, Section 6.1 ("Building and Construction"), states: "The erection (including excavating), demolition, alteration or repair of any building, or the excavation of streets and highways, other than between the hours of 7:00 a.m. and 9:00 p.m. on weekdays, except in the case of urgent necessity in the interest of public safety, and then only with a permit from the Town's Building Department, which permit may be granted for a period not to exceed three (3) days while the emergency continues."

No construction activities which generate noise will take place outside of the specified window.

29. **Would the proposed project meet the applicable Department of Energy and Environmental Protection noise standards at the property boundaries?**

The proposed Project will meet the applicable CTDEEP noise standards at the property boundaries. A copy of a spec sheet for the currently-selected inverter equipment is enclosed herewith as Exhibit B for reference.

30. **Where is the nearest federally-obligated airport? Is a glare analysis required to comply with FAA policy?**

The nearest federally obligated airport is Bradley International Airport, which is located approximately 7.65 miles from the Project site. No glare study is expected to be needed for the FAA's finding of Determination of No Hazard, given this distance. The need for the FAA review is to confirm that there will be no communication interference.

31. **Would the proposed project require a review/determination from the FAA regarding any potential hazard to air navigation?**

The Project will require a review/determination from the FAA due to its proximity to Skylark Airpark, a small airport located approximately 3.65 miles northwest of the Project site. A determination request was submitted on September 29th 2020. All FAA documentation is enclosed herewith as Exhibit C for reference.

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

**a) Is outreach and/or training necessary 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 walk-through 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

33. **Referencing the Wetland Delination Map in Figure 11 of the Petition, why is the proposed project area depicted in the Wetland Delineation map in red different**

**from the Proposed Project Layout in Figure 7 and in Appendix A of the Petition? Explain.**

The area outlined in red consists of all parcels owned by the landowner that were up for consideration for the Project. The wetland delineation was performed prior to finalizing the exact location of the Project.

34. **Referencing Appendix F of the Petition, Phase 1 Environmental Site Assessment (ESA), page 65 includes information on radon. How does the radon information that is presented affect the proposed project?**

Radon is a radioactive gas found naturally in the environment as a decay product of uranium originating in earth materials. Radon gas may be an issue if it permeates a building foundation and collects in indoor air, and secondarily, can originate from water supply wells and impact indoor air. However, potential exposure to radon gas is not an issue for this Project, as there are no habitable structures that currently exist on, or are proposed for the Site.

35. **The ESA also discusses the presence of pesticide/herbicide/fungicide residue in the soils. What methods would be used during project construction to protect workers, mitigate the residues from becoming airborne and mitigate residues from migrating, particularly with regard to surface storm water runoff and groundwater discharge, when soils are disturbed and/or stockpiled?**

A Modified Spill Prevention, Control and Countermeasure Plan ("SPCC") and Soil Contact Best Practices Plan has been prepared for construction at the Site; a copy of the same is included herewith as Exhibit D.

36. **The Greenhouse Gas (GHG) Assessment in Appendix M of Council Petition No. 1352 compared the life cycle GHG emissions from a solar project to a scenario where the solar project is avoided and an equivalent amount of natural gas-fired electric generation operated for the estimated life of the solar facility. For the proposed project, how would the net GHG emissions (or reduction) over the life of the solar facility and carbon debt payback be affected under this natural gas-fired generation versus proposed solar generation scenario?**

Assuming a one percent (1%) degradation of solar output per year and a starting yearly output of 9,622 MWh for this Project, it is anticipated that approximately 245,361 MWh will be generated over an assumed 30-year lifespan. Utilizing the conversion ratio described in Appendix M of Council Petition No. 1352, relating 744,038 MWh to 1,273,861 MT of CO2eq, it can be anticipated that approximately 420,080 MT of CO2eq would be generated by a natural gas-fired facility to equal this Project's MWh output. This translates to approximately 14,002 MT of CO2eq per year. Relating this Petition's estimated carbon debt of 9,659 MT CO2eq to this number, it would take the Project 0.69 years (or nearly eight (8) months) to have a net improvement with respect to GHG emissions.

37. **Referencing page 23 of the Petition, the Petitioner notes that "[T]he property in its entirety is prime farmland," and page 4 of the Petition notes that the project development area is approximately 28.7 acres. Estimate the total prime farmland soil impact area of the project. Referencing the letter from DOAg dated August 27, 2020, "[T]he solar project footprint is planned to contain approximately 24 acres of**

**mapped prime farmland." Would the total disturbance area of prime farmland soils be about 24 of the 28.7 acres of the development area? Explain.**

Disturbance within the proposed perimeter fence, associated with the installation of panels, access roads, equipment pads, and stormwater basins, is approximately 24 acres in size. Total construction limits for the Project are approximately 32 acres, as indicated on Site Plan Sheet C-3.0, which includes approximately eight (8) acres of prime farmland which is being vegetated.

38. **Referencing page 25 of the Petition, please provide the results of any surveys and/or habitat assessments for the state-listed animal and plant species identified by DEEP on the August 20, 2019 Natural Diversity Database (NDDB) letter including any recommended protective measures and/or seasonal restrictions. Were such results submitted to DEEP? If yes, please provide a copy of any response from DEEP regarding the results.**

A report compiling all surveys and/or habitat assessments for the state-listed animal and plant species identified by CTDEEP (in its August 20, 2019 NDDB letter) was submitted to CTDEEP on August 28, 2020. GCE has not yet received a response regarding the results. A copy of the NDDB Preliminary Assessment Letter and VHB Wildlife Report are attached hereto as Exhibit E and Exhibit F, respectively.

39. **Are there any wells on the site or in the vicinity of the site? If so, how would the Petitioner protect the wells and/or water quality from construction impacts?**

There are no wells on, or within the vicinity of, the Site.

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

It has not been fully determined whether fuels will be stored on site during construction. If, however, fuels are stored on site during construction, they will be stored in accordance with the Modified Spill Prevention, Control and Countermeasure Plan (SPCC) and Soil Contact Best Practices Plan referenced above. A copy of the same is included herewith as Exhibit D.

41. **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.

42. **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?**

It is currently anticipated that 12 to 16-foot length steel piles will be used as structural foundation materials. Based upon the use of this system, no impacts to groundwater quality are anticipated.

43. **Referencing Appendix M of the Petition, Drawing L-1.1 and visual simulations are included. Please respond to the following:**

    a) **Drawing L-1.1. says "6' Chain Link Fence with Privacy Slats." Would this section of fence be six feet tall and the remainder of the fence be seven feet tall per page 10 of the Petition? Please correct Drawing L-1.1 and photosimulations (if necessary) if all fencing is seven feet tall.**

    Drawing L-1.1 has been revised to correctly state the intended seven-foot (7') Chain Link Fence with Privacy Slats. It is confirmed that the photosimulations were conducted utilizing a seven-foot (7') height fence for reference. A revised Drawing L-1.1 is included herewith as Exhibit G.

    b) **Please indicate on a map the location(s) that the photos were taken from.**

    Drawing L-1.1 has been revised to include an arrow and callout depicting where the photograph was taken from, and in which direction, for use in the photosimulation.

    c) **Is Photosimulation 1.4 intended to depict the proposed landscaping noted on Drawing L-1.1?**

    It is confirmed that Photosimulation 1.4 is intended to depict the proposed landscaping noted on Drawing L-1.1, enclosed herewith. Final screening plantings are subject to change following further coordination with residential abutters, and any revisions to the planting plans will be submitted to the Council for review and reference.

44. **Where is the nearest parcel used for publicly accessible recreational purposes? Describe the visibility of the proposed project from this parcel.**

    The closest parcel used for publicly accessible recreational purposes is Pierce Memorial Park located approximately 3180' from the Project site. The Project will not be visible from Pierce Memorial Park.

45. **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.**

    There are no national or state-designated scenic roads in the Town of East Windsor. The nearest locally designated scenic road is Wapping Rd, which falls within East Windsor's scenic road corridor. The Project is located approximately 1800' southeast from Wapping Rd, however, and will not be visible from the road.

46. **Please submit photographic site documentation with notations linked to the site plans or a detailed aerial image that identify locations of site-specific and representative site features. The submission should include photographs of the site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features including, but not necessarily limited to, the following locations as applicable:**

**For each photo, please indicate the photo viewpoint direction and stake or flag the locations of site-specific and representative site features. Site-specific and representative site features include, but are not limited to, as applicable:**

1. **wetlands, watercourses and vernal pools;**
2. **forest/forest edge areas;**
3. **agricultural soil areas;**
4. **sloping terrain;**
5. **proposed stormwater control features;**
6. **nearest residences;**
7. **Site access and interior access road(s);**
8. **utility pads/electrical interconnection(s);**
9. **clearing limits/property lines;**
10. **mitigation areas; and**
11. **any other noteworthy features relative to the Project.**

**A photolog graphic must accompany the submission, using a site plan or a detailed aerial image, depicting each numbered photograph for reference. For each photo, indicate the photo location number and viewpoint direction, and clearly identify the locations of site-specific and representative site features show (e.g., physical staking/flagging or other means of marking the subject area).**

**The submission shall be delivered electronically in a legible portable document format (PDF) with a maximum file size of <20MB. If necessary, multiple files may be submitted and clearly marked in terms of sequence.**

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

## Facility Construction

47. **Has the Petitioner submitted an application for a Stormwater Permit from the Department of Energy and Environmental Protection?**

The Petitioner has not submitted an application for a Stormwater Permit from the CTDEEP, as the Petitioner is currently waiting on a Final Determination from NDDB prior to filing.

48. **Referencing pages 17 and 18 of the Petition, the Petitioner met with DEEP Stormwater Division on June 3, 2020 and planned to have a site visit with DEEP. When was the site visit with DEEP Stormwater held? Were any subsequent meetings with DEEP Stormwater held? Please describe any recommendations, comments or concerns about the project provided by the Stormwater Division.**

The Site was walked together by Steve Kochis of VHB and Neal Williams of CTDEEP Stormwater on July 28, 2020, and the proposed site plans were discussed during said walk. Generally, Neal Williams verbally stated that the subject Site was a very good selection for solar and offered no proposed modifications or requests to the current plans at that time. No other meetings or conference calls have taken place to date.

49. **Has the Petitioner consulted with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basins?**

Yes, following consultation of the Project with CTDEEP Dam Safety, the Project team received email correspondence, dated August 19, 2020, from Anna Laskin, Civil Engineer with CTDEEP Dam Safety, stating that the three proposed stormwater basins at Mulnite Solar would not be classified as dams because they are not designed to impound water above existing grade. A copy of this email is included herewith as Exhibit I.

50. **With regard to earthwork required to develop the site, provide the following:**

**a) Will the site be graded? If so, in what areas?**

The Petitioner proposes grading the site only to excavate for the stormwater basins and to spread any resulting excess material. It is now proposed to keep all soil on-site after consultation with the Department of Agriculture.

**b) What is the desired slope within the solar array areas?**

Typical slope tolerances for construction and for racking installation are less than fifteen percent (15%) slope(s).

**c) Could the solar field areas be installed with minimal alteration to existing slopes?**

Yes, at this time, the Petitioner does not propose regrading any areas on the site, except in connection with the installation of the stormwater basins and the spreading of resulting excess material. The entire site is extremely flat with no slopes in a proposed panel array area exceeding five percent (5%).

**d) If minimal alteration of slopes are proposed, can existing vegetation be maintained to provide ground cover during construction?**

Only a very small amount of nonagricultural existing vegetation exists today at the site, as it is actively farmed. The Project proposes vegetating the site as early as practicable by seeding prior to the start of construction to allow the site to vegetate.

**e) Estimate the amounts of cut and fill in cubic yards for the access road(s)**

The Project does not propose cutting any existing on-site material for installation of the proposed access roads. Rather, the crushed stone will be placed on top of the existing material. The detail on Sheet C-6.2 has been revised to depict this and is included herewith as Exhibit A. It is proposed that approximately 1,600 cubic yards of stone will be imported to the site for the proposed access roads.

**f) Estimate the amounts of cut and fill in cubic yards for solar field grading.**

No cut and fill is proposed within the solar panel array for the purposes of tolerable racking slope percentages. It is proposed that approximately 10,000 cubic yards of material will be excavated to construct the Project's proposed stormwater basins and swales. This material will either be spread on the site or handled by the land owner. In the event that the material is spread on the site, Sheet C-4.1 has been revised to depict a potential on-site area where the material may be spread. This revised sheet is included herewith as Exhibit A.

**g) If there is excess cut, will this material be removed from the site property or deposited on the site property?**

Due to ongoing consultation with Department of Agriculture, the Project now proposes keeping all soil on-site, distributed throughout the Project area or used by the landowner.

51. **Would topsoil be stripped from the site prior to grading? If so, would the topsoil be spread over the disturbed areas once grading is complete? If not, how would growth of new vegetation/grasses be promoted within the graded areas if nutrient rich soils are not present?**

The Petitioner anticipates that topsoil will be stripped from the site prior to grading the stormwater basins and will be stockpiled for reuse as necessary.

52. **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?**

The posts will be driven into the ground by a track-mounted pile driver. Ground screws and./or pre drilling is anticipated to be used in the event that ledge is encountered.

53. **What is the minimum road width required for post-construction use?**

GCE's preferred minimum road width for post-construction operations and maintenance is approximately fifteen feet (15').

54. **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. If not, has the Petitioner anticipated and designed the Project with assumed subsurface conditions? What are these assumed conditions?**

Based upon the geotechnical testing conducted for stormwater management, the Project has been designed to accommodate existing Site conditions. At this time, it is generally anticipated that a deep consistent loamy sand layer exists throughout the development area based upon the results of the geotechnical work performed, with no evidence of shallow restrictive layers. It is also anticipated that structural pull testing will be required if/once the Project is approved to assist in the final design of the racking foundation systems.

55. **Does the proposed construction schedule/sequence account for possible seasonal construction restrictions due to the presence of protected species?**

As of the date of this response, it is not anticipated that any protected species (which may be present at the Site) necessitate any possible seasonal construction restrictions; accordingly, it is not presently accounted for in the Project's construction sequence/schedule. The Petitioner is awaiting Final Determination from CTDEEP Wildlife Division which will confirm this understanding. Lastly, it is noted for reference that no tree clearing is proposed as part of this Project.

## Maintenance Questions

56. **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.**

There are no anticipated circumstances in which GCE would remove snow from panels given their respective positioning. Although accumulation of snow will affect energy output, this has been factored into the production analysis for the facility.

57. **Describe the type and frequency of anticipated vegetation management for the site. Include areas inside and outside of the perimeter fence, as well as detention basins and swales.**

All vegetation within the Project Area would be maintained by sheep grazing throughout the growing season. It is anticipated that mowing would take place a few times per year along the eastern fence line to maintain vegetation planted for screening. In accordance with the Stormwater General Permit, which must be obtained for this Project from CTDEEP, it is anticipated that vegetation management during construction for the entire limits of work will take place daily by the site contractor, and that the qualified inspector for the Project will be performing weekly inspections. Following the completion of construction, it is currently anticipated to be proposed to CTDEEP that the vegetated areas within the limits of the Project, including the detention basins and swales, will be inspected monthly for the first three months, and twice per year following that. Vegetation management will include checking for bare areas, remediating with additional seeding or planting, as needed, and undergoing further analysis and remediation in the event that vegetation is not stabilizing properly.

58. **Would the installed solar panels require regular cleaning or other, similar, maintenance? If so, describe cleaning procedures including substances used. Would this maintenance activity have any impacts to water quality?**

Due to regular precipitation and weather patterns in the Northeast, modules typically do not require periodic cleaning. If, however, an unforeseen incident or event were to occur that would make cleaning necessary, GCE would only use water for such cleaning purposes.

59. **If applicable, what type of methods would be employed to clean the panels and how often?**

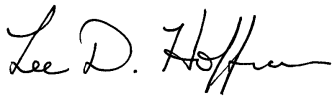
Please see the response to Interrogatory 58 above. In the unlikely event that cleaning is needed, GCE intends to clean the panels with water that will be trucked into the Site.

60. **Would the Petitioner store any replacement modules on-site in the event solar panels are damaged or are not functioning properly? If so, where? How would damaged panels be detected?**

No, the Petitioner would store all replacement modules at the Greenskies warehouse in North Haven, CT. Damaged panels would be detected by GCE's internal operations and maintenance team using a 24-hour monitoring system.

Respectfully submitted,

**Greenskies Clean Energy, LLC**



By:_____

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