



Lee D. Hoffman
90 State House Square
Hartford, CT 06103-3702
p 860 424 4315
f 860 424 4370
lhoffman@pullcom.com
www.pullcom.com

April 27, 2020

VIA ELECTRONIC FILING AND U.S. MAIL

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Petition No. 1347A – GRE GACRUX 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 16.78-megawatt AC solar photovoltaic electric generating facility in Waterford, Connecticut. Reopening of this petition based on changed circumstances

Dear Ms. Bachman:

I am enclosing the Response of GRE GACRUX, LLC to Interrogatories Propounded by the Town of Waterford on April 12, 2020 in the above-referenced Petition.

If you have any questions concerning this submittal, please contact the undersigned at your convenience. I certify that copies of this submittal have been submitted to the service list via electronic mail.

Sincerely,

Lee D. Hoffman

cc: Service List

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

GRE GACRUX LLC petition for a declaratory ruling for the proposed construction, maintenance and operation of a 16.78-megawatt AC solar photovoltaic electric generating facility in Waterford, Connecticut. Reopening of this petition based on changed conditions.

Petition No. 1347A

April 27, 2020

**PETITION 1347A: GRE GACRUX LLC'S RESPONSES TO
THE TOWN OF WATERFORD'S APRIL 12, 2020 INTERROGATORIES TO
PETITIONER**

Petitioner GRE GACRUX LLC (“GRE” or “Petitioner”) hereby submits the following responses to the Town of Waterford’s April 12, 2020 Interrogatories that were directed to GRE.

1. Have any studies, surveys or analyses been conducted to determine the potential impact on property values for those properties proximate to such a utility scale solar facility? If so, what is the scale and direction of those impacts if any?

The Petitioner has not completed any such studies specific to this Site. However, there have been general studies completed on the issue. See, e.g., Solar Energy Industries Association, *Solar and Property Value*, accessible at, <https://www.seia.org/research-resources/solar-and-property-value>; Leila Al-Hamoodah et. al, *An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations*, accessible at, https://emp.lbl.gov/sites/default/files/property-value_impacts_near_utility-scale_solar_installations.pdf. By and large, the studies suggest that large-scale solar arrays often have no measurable impact on the value of adjacent properties, and in some cases may even have positive effects.

2. What is the expected addition to the Grand List at the completion of the project?

Petitioner objects to this interrogatory in that it seeks information that is beyond the scope of the Petition. Subject to the foregoing objection, Petitioner states that because the subject property is not fully constructed, the Petitioner is unsure what the expected addition to the Town’s Grand List would be upon completion of the Project. However, the Petitioner would be willing to discuss this matter with the Town, as part of direct negotiations.

3. At the conclusion of the land lease what is the anticipated impact to the subject's property value? Will the land be restored to its original condition and use?

Petitioner objects to this interrogatory in that it seeks information that is beyond the scope of the Petition. Subject to the foregoing objection, Petitioner states that the Petitioner does not anticipate that there will be any long-term impact to the Property's value after the expiration of the lease-term and the Project has been decommissioned. The land will be fully removed of all Facility components, and GRE intends to establish vegetation and re-seed the land. This, in turn, will start the process of establishing forest cover. However, as the Site will be leased, rather than purchased, the Petitioner cannot control how the landowner will subsequently use the Property. GRE surmises that, following termination of the Lease, the landowner will resort to his prior use of the Property, although GRE notes that once the Lease is terminated, the landowner will be able to use his property in any manner he sees fit.

4. The current pavement condition index is in the range of reclaiming the road. A simple overlay of the road will not be acceptable, either before or after the site has been completed. The Town recommends clear documentation of road conditions by the project team prior to the start and at the conclusion of any activity on site and asks that the Siting Council require full reclamation of the section of Oil Mill Road used to access the project site. A road condition survey should also be required prior to decommissioning, and any anticipated damage from heavy truck traffic at that time should be addressed.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner agrees with the Town's recommendations. GRE would also like to work with the Town separately to ensure that the subject road will be improved and be in such condition to support the proposed Project and related construction activities.

5. The current width of the road is not suitable for truck traffic. The road should be widened to provide an 11 foot clear lane in each direction with a double yellow centerline for a total paved width of 24 feet. If this is not feasible within the existing right of way, it should be widened to the maximum extent possible and require any truck travel on Oil Mill Road to have an escort vehicle for each load warning oncoming traffic of an approaching vehicle that will be over the center line. How will this issue be addressed?

While the Petitioner cannot propose an exact solution to the issue raised herein, GRE would like to engage in conversations with the Town's engineers, the Project's engineers and construction team, to devise an adequate solution. As common practice, GRE typically develops site-specific traffic flow plans, and associated site logistic plans, that show access and circulation for all of its projects. The Petitioner similarly intends to do this for the instant Project and will work with the Town in so doing.

6. Heavy and repeated vehicle loads will further deteriorate the supporting base of the road causing rutting and the failure of the surface course. This will impact the ability of the town to engage in proper winter operations of removing snow and preventing ice buildup on this section Oil Mill Road. How will this issue be mitigated?

Please see the Petitioner's answers to Interrogatories 4 and 5 above. The Petitioner stresses, however, that its Project team and developer are happy to work with the Town to ensure that the subject road is properly maintained and improved.

7. This project will require a new pole line, with larger diameter poles able to support 3 phase infrastructure. The AASHTO standard (A Guide for Accommodating Utilities Within Highway Right of Way) states the setting of the new poles should be outside of the clear zone as practicable to the right of way line. Please provide additional information about how this standard will be addressed. The Town recommends new pole installation along the ROW line or securing easements for the poles from the abutting property owners to relocate the poles outside of the clear zone.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner would note that Eversource is the entity responsible for the utility poles and/or underground feeder construction between the Project Site and the substation. As such, GRE cannot comment on how Eversource will address this aspect. The Petitioner does note, however, that Eversource has not yet completed the interconnection design for the referenced section.

8. The access road to the site shall provide the proper site line distances in both directions and should include a paved apron surface and be graded to prevent any water from discharging onto the Town roadway. Will these issues be addressed?

Yes; the Project team will ensure that the access driveway is engineered to meet all applicable Town, state, and federal requirements.

9. Please indicate where MUTCD approved signage will be installed with proper foundations warning of a construction entrance.

Location(s) of MUTCD-approved traffic control signs associated with construction activities will be selected and presented in the Project's D&M Plan. GRE intends to work with the Town in determining the preferred siting of such signage.

10. To minimized [sic] damage to local roads, construction vehicle access to the site should only use Parkway North and the section of Oil Mill Road to limit the damage to other local roads. How will construction traffic be controlled to limit damage?

As noted in the Petitioner's response to Interrogatory No. 5 above, it is the common practice of GRE to develop a traffic plan as part of final construction level designs and specifications. Typically, the Petitioner develops these traffic plans in conjunction with the relevant authority that has jurisdiction, based on delivery schedules and requirements, construction timeframes, and local requirements. GRE expects to handle the instant Project in the same manner. The Petitioner has not yet created a detailed construction traffic plan for the Site, but it would welcome the Town's feedback and input in developing same.

11. The revised project involves approximately 75 acres of land clearing and soil disturbance for construction within the upper watershed of Stony Brook and Oil Mill Brook. Stony Brook and Oil Mill Brook are designated as Class A watercourses and are also designated as fully supporting aquatic life. Field bioassessment surveys completed in 2014 and 2105

verified the presence of native trout in both Stony Brook and Oil Mill Brook and diverse ecologically sensitive, in-stream invertebrate community. These are high quality surface waters in the Town of Waterford. The proposal involves a significant disturbance in the contributing watershed area of these streams. Maintaining conditions in the tributary watersheds that support the biodiversity and water quality in these streams is a critical concern of the Town. Impacts to hydrology, temperature regimes and increased sediment loading adversely impact the water quality and aquatic habitat. The petition does not address the quality and sensitivity of these receiving waters and wetlands nor evaluate the potential impacts to the receiving streams and aquatic habitats from construction and post-construction run-off from the proposed development.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner respectfully submits that the Petition does indeed address the quality and sensitivity of receiving waters, wetlands and impacts to nearby streams and aquatic habitats. The proposed erosion controls for the Project have been designed, to the maximum extent practicable, in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. The proposed controls are depicted on the Project's site plans, and computations for the proposed diversion swales, sediment traps, and basins are included in the Project's Stormwater Report (Petition, Appendix B). A review of the site plans and Exhibit B show the respective computations for peak flow mitigation, stream channel protection, and water quality treatment. Further, post-construction run-off mitigation, stream channel protection, and water quality treatment have been designed in accordance with the *2004 Connecticut Stormwater Quality Manual*, as well as the CTDEEP's publication, *Guidance Regarding Solar Arrays*. Regarding thermal impacts, the Project will not contain vast surfaces of imperviousness (such as a parking lot) on which stormwater runoff would have the opportunity to pond on or travel across—thereby, heating up in the process. Instead, runoff on the Site will fall off of the solar panels quickly and travel across vegetated surfaces to the stormwater basins. Infiltration of stormwater runoff is promoted to the maximum extents feasible in the Project, and the minimum distance of any proposed basin to either Oil Mill Brook or Stony Brook is approximately 800 feet. This distance will allow time for runoff exiting the basins to cool across forested floor before reaching one of the brooks.

12. Erosion of disturbed soil and slopes, and potential failure of the stormwater basins located along the project perimeter with resultant significant sediment impacts to downgradient wetland resources are of critical concern. Basins level spreaders on the easterly side of the project discharge to steep slopes and rock outcrops upgradient of Stony Brook. Stormwater discharged from the level spreaders to these steep slopes is not anticipated to dissipate, but to result in concentrated flows that will cause downgradient soil erosion and sediment impacts to the wetlands and watercourses. The terrain and proximity to property boundaries does not provide opportunity to attenuate run-off, nor to correct or abate sediment discharges should they occur.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner notes that presently, stormwater runoff along the easterly side of the proposed Project Site channelizes in multiple locations prior to exiting the

parcel limits. The Project is designed to maintain these drainage patterns. Stream channel protection (i.e., the reduction of runoff from two (2)-year rainfall events) and peak flow mitigation (up to, and including, the 100-year rainfall event) have been factored into the Project's stormwater management design. Computations for same are included in the Stormwater Report (Petition, Appendix B).

13. The Wetland and Biological Assessment document submitted with the petition [Appendix H, Davison report 2018] recommends promoting infiltration of run-off to “help to ensure” there are no thermal impacts to downstream resources and to design the stormwater management system so there is no increase in peak run-off flows or total run-off volume discharging from the site. The petition documents do not provide information regarding the design, capacity or the effectiveness of the proposed stormwater management system components to infiltrate run-off, attenuate potential thermal impacts, total run-off volumes, and sediment and nutrient discharge to adjacent properties and the receiving wetlands within Stony Brook and Oil Mill Brook.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner notes that post-construction run-off mitigation, stream channel protection, and water quality treatment for the Project have been designed in accordance with the *2004 Connecticut Stormwater Quality Manual*, as well as the CTDEEP publication, *Guidance Regarding Solar Arrays*. Computations for peak flow mitigation, stream channel protection, and water quality treatment are included in the Project's Stormwater Report (Petition, Appendix B). Geotechnical studies have been performed at each proposed basin location, and infiltration testing was performed where shallow restrictive layers were not discovered. Infiltration basins have been included in the stormwater management design, to the maximum extent practicable, based upon the findings of these studies. The results from the geotechnical studies are included in the Stormwater Report.

14. The revised plans indicate the sediment basins will be permanent stormwater basins but do not provide details on how these sediment basins will be converted to stormwater ponds, stormwater infiltration basins or sand filters as identified in the hydrology report and plan detail sheet C-6.2. Basin design details are not consistent with the 2004 CT Stormwater Quality Manual for sand filters and no details are provided for stormwater ponds or infiltration basins. Basin function and performance in the attenuation of post-construction pollutant and thermal loadings is not supported in the petition documents.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, it should be noted that the Petitioner intends to reuse the temporary sediment traps and basins as permanent features, and they have been designed as such. The temporary sediment traps and basins have been designed with 3:1 (or flatter side slopes), in lieu of the traditional 2:1 side slopes for these measures, which is an acceptable side slope for a permanent stormwater basin. Moreover, the riprap spillways that will be built during construction, double as the long-term outlet control structures for peak flow mitigation. It is proposed in the construction sequence (which will be included in the D&M Plan) to remove sediment from all of the areas prior to the completion of construction. Computations for long-term water quality treatment are included in the Stormwater Report (Petition, Appendix B).

15. The wetland and biological assessment report (Appendix H) identifies the parcel as part of a core forest area in the Town of Waterford and notes that the resulting clearing of approximately 90 acres will render the site largely uninhabitable for forest-dwelling birds. Impacts of this habitat disturbance are also noted to affect core forest habitat on adjacent properties due to the relative location of the project in the central portion of the forest tract and the resultant forest fragmentation. This impact is not mitigated by this proposal.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, Petitioner would first note that for the instant Petition, an analysis regarding the Site's status as "core forest," or impacts to same, is not required, as it was selected in a CTDEEP Request for Proposals ("RFP") that was conducted prior to July 1, 2017. Notwithstanding this fact, however, breeding birds were surveyed for within the Project limits as part of the Nddb consultation process; and, no Rare, Threatened, or Endangered species were found at the Site. The CTDEEP Wildlife Division concurred with the findings of this survey and issued a Final Determination on the Project, which did not include a recommendation for further breeding bird surveys. Further, the Petitioner notes that as the Town states in Interrogatory 16, logging activities have been conducted on this site in the recent past, and if the Project is not constructed, Petitioner presumes that such activities will be allowed to continue in the future.

16. The property was authorized for a timber harvest in accordance with the Waterford Inland Wetlands and Watercourses regulations and zoning regulations as an agricultural activity, not as a site clearing approval. The timber harvest occurred over an 8-9 month period between January and September 2018. The Town required that the haul routes, landing areas, and harvest areas are stabilized and seeded at completion of the timber harvest in accordance with the forestry best management practices. The petition states the applicant is "committed to cleaning the project site from recent timber harvesting activities". The brush, branches and wood chips left on the forest floor and haul roads are considered best management practices for forest harvest activity to return carbon to the soil, provide shelter for seed germination and provide microhabitats for species. What "cleaning" measures are proposed, where proposed, and what level of soil and substrate disturbance will result in areas outside the proposed solar array footprint?

Historically, as part of the Stormwater General Permit Process, the CTDEEP requires project developers to remove wood chips from the areas intended to be permanently vegetated (i.e., the Project limits). Because the "cleaning" measures that will be ultimately conducted at the Site are governed by the CTDEEP, the Petitioner will abide with whatever measure(s) the CTDEEP deems appropriate for the Site.

17. The petition notes that 45 acres of project area have been harvested by owner and the initial project phase will involve "minor additional clearing as required for project". The 45 acre harvest area was not a clear-cut operation and did not involve removal of tree stumps, understory stumps or root masses. The initial project phase will involve cutting, clearing and grubbing 75 acres of land.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, a Stump Grubbing Map was prepared in response to the Siting Council's (Set One) Interrogatories, Interrogatory No. 8. The Stump Grubbing Map depicts the anticipated limits of clearing and grubbing for the Project.

18. What are the proposed seed mixtures for the solar array area and the low maintenance ground cover areas and the anticipated time for seed germination and vegetative cover establishment?

The proposed seed mixture(s) for the solar array area includes: Sheep Fescue, Little Bluestem Camper, Broomsedge, Annual Ryegrass, Lanceleaf Coreopsis, Plains Coreopsis, Black Eyed Susan, Common Yarrow, and Butterfly Milkweed.

While the exact mix for the ground cover areas is not yet finalized, GRE has been actively communicating with the Connecticut Department of Agriculture, the American Solar Grazing Association, and the UMASS Clean Energy Extension to develop best vegetation and management practices. GRE intends to use a mix that will maximize the value of the underlying land, and which will act to prevent erosion, support wildlife habitat, and allow for the safe operation of the system. That being said, at this time, the potential list includes: Big Bluestem, Little Bluestem, Switchgrass, Fox sedge, Silky Wild Rye, Common Milkweed, Deertongue, Pennsylvania Smartweed, Partridge Pea, Silky Smooth Aster, Nodding Bur-marigold, Flat Top Aster, Perennial Ryegrass, Meadow Fescue, Red Clover, Anise-Scented Goldenrod, Black Eyed Susan, Common Yarrow, Calico Aster, Late Lowbush Blueberry, Narrow-Leaf Mountain-Mint, and Virginia Strawberry.

19. The estimated construction sequence will not provide a full growing season between seed application and initiation of solar array construction. If clearing and grubbing begins in June as proposed, seed establishment and grass cover will have only July through October to occur before frost, with a shorter duration for areas cleared and grubbed later in the initial phase. There are no water sources on the site for irrigation to help grass establishment through the summer dry period. It is likely there will be large areas of sloping land with poor vegetative cover to protect soils against erosion and reduce sediment movement.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, GRE believes that the growing season, construction sequencing, the establishment of vegetative cover, and the interplay among same, is important to address.

With that being said, the full growing season proposal for the Project's vegetative cover originated from the Petitioner's preliminary discussions with the CTDEEP (during pre-application meetings for the Stormwater General Permit submission). Since such time, however, there have been a number of Project-related delays (including the postponement of various Siting Council hearings and proceedings) appropriately resulting from the COVID-19 outbreak. Because of this, the construction schedule has changed, and correspondingly, different approaches to vegetation and stabilization are required. GRE intends to work with the CTDEEP team, with input from Town engineers, once the instant hearing is complete to fully define the best method to establish a

vegetative cover after civil work on site is complete. It should also be noted that a full growing season as described above is not required in any applicable regulation or guidance document.

20. Low impact development site design and construction measures are necessary on this site to dissipate and reduce run-off volumes and control sediment prior to reaching the sediment basins and project perimeter. Failure of the basin embankments and outlet control is of great concern on this project.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner appreciates the Town's concerns. While the Low Impact Development ("LID") approach to site development and stormwater management is not necessary for the instant Project, the Petitioner has designed the Site to conform not only to the exacting requirements contained in the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (the "General Permit"), but also incorporates measures provided for in the *2004 State of Connecticut Stormwater Quality Manual*, the Minnesota Drainage Manual, and the latest iteration of CTDEEP Appendix I, which CTDEEP is currently using as a guidance document, not a regulation. In keeping with this, the Petitioner has incorporated various protective features into its design, including, but not limited to, the following items:

- Preserving pre-development drainage patterns, to the greatest extent feasible, in an effort to maintain pre-development flows to existing wetland and watercourse areas;
- The inclusion of fifteen (15) stormwater management basins that have been designed and strategically located throughout the Project Site to mimic existing runoff collection areas that convey runoff to adjacent wetlands and watercourses;
- All basins have been designed at a minimum distance of 100-ft from delineated wetlands and watercourses; in sensitive areas, the basins will discharge stormwater via a level spreader to mimic a sheet flow condition and avoid point discharge.
- The proposal of laydown areas for each phase of construction. Each site area will be protected by the construction of a sediment trap/basin that will subsequently be converted into a permanent stormwater management basin to manage post-construction stormwater runoff; and,
- The utilization of Sedimentation and Erosion Control Plans that have been developed in compliance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as well as the latest guidance from the CTDEEP.

21. To what extent and in what location does the project lease area extend beyond the limit of work delineated on the site plans?

The project lease area encompasses the entirety of the +/- 152-acre parcel. A copy of the Site Layout Plan is included in the Petition (Figure 3).

22. Will the contractor and/or applicant's responsibility for site stabilization and impacts to site resources extend beyond the limit of work? This is of importance as the stormwater basins will discharge to recently harvested woodland soils, wetland buffer areas and timber haul routes. These areas may be more susceptible to soil erosion from the increase in volume

and duration of run-off over existing conditions, and may require erosion control measures and soil stabilization efforts.

By virtue of the CTDEEP Stormwater General Permit, which must be obtained for the Project, it is the Contractor's and Petitioner's responsibility to protect the wetland resources that are present on the Site, and to prevent the deposition of sediment across parcel lines. Additionally, in accordance with the CTDEEP Stormwater General Permit, a qualified inspector must make weekly visits to the Site to investigate for signs of potential erosion and to report this information to the CTDEEP. If the Town desires, the Petitioner is willing to copy the Town of Waterford on all such weekly inspection reports.

23. What is the estimated volume and type of materials to be exported from the construction site e.g. soil, stumps, rock.? Where are temporary stockpile or laydown areas proposed?

The Siting Council issued Interrogatories to GRE on March 3, 2020. Much of the information that is responsive to this Interrogatory is located in GRE's responses to the Siting Council's Interrogatory No. 21. In addition, the Project contemplates grinding the removed stumps on-site, and re-purposing the wood chip mulch as filtration berms to support the perimeter silt fence. The Project also proposes crushing and re-using, to the extent practicable, on-site rocks for erosion control measures. The exact locations of these areas have not yet been determined and would most likely be determined by the construction contractor.

24. What grading and stabilization work is required for the existing culverted access road to the site from Oil Mill Road to support the anticipated construction traffic? Existing sideslopes at the wetland crossing are relatively steep. What temporary and permanent sediment controls are proposed? Will additional wetland fill be required?

A revised Site Plan is presently being prepared; pursuant thereto, construction and long-term traffic will be directed entirely around the on-site wetlands to avoid impact to same. Therefore, there are no current plans to perform any work in connection with the existing access road. The revised Site Plan does not contemplate using the existing wetland crossing that was created by the landowner for logging purposes.

25. Design specifications for the proposed stormwater pond, infiltration basin and sand filter basins and how these conform to CT Stormwater Quality Manual 2004 are not provided.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, Petitioner states that the goal of the Project's stormwater management design is to maximize the infiltration of stormwater runoff from the Site, and minimize overall disturbance caused by regrading activities. With that knowledge, the basins in question have been designed with the goal of infiltrating runoff. However, given the presence of redoximorphic features noted during the geotechnical investigations, some of the basins have conservatively been modelled hydrologically as containing a starting water surface elevation to reflect likely conditions during the wet season, and have been labelled as ponds accordingly. Details are included in the Site Plans regarding basin side slopes; use of erosion control blankets

on the side slopes; spillways; outlets; and energy dissipators. The Petitioner will revise the Site Plans to include detailed sizing figures for the sand filter beds.

26. The use of proposed infiltration areas as construction sediment basins is not a recommended practice per the CT Stormwater Quality Manual due to loss of pore space and infiltration capacity of the substrate from accumulated fine sediments. How will proposed infiltration areas be protected? Will infiltration basins be field tested for capacity prior to planting?

The construction sequence proposes removing sediment from all of the measures prior to the completion of Project construction; it does not propose field-testing infiltration rates prior to final plantings.

27. A construction sequence narrative on how and at what point in the construction the sediment basins are converted into stormwater basins is not provided. Sequence details should address removal of accumulated sediment, installation of infiltration media and growing media, seeding/planting details and timing, monitoring locations or ports for infiltration basins and stormwater ponds, and temporary soil stabilization material within the basin until vegetation has re-established.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the construction sequence that is provided for in the Site Plans will be revised to include information on how, and when, the temporary sediment basins are to be converted to long-term stormwater basins.

28. The O&M plan (Appendix C) does not identify what maintenance items are to be inspected at a minimum and what corrective actions are to be taken to maintain the stormwater basins, basin outlets and diversion swales post-construction. The O&M plan does not address maintenance and inspection requirements for the different basins identified as stormwater ponds, sand filters and infiltration basins. Failure to maintain and monitor performance of these stormwater controls will result in loss of infiltration, water quality treatment and functionality of the stormwater system.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, Petitioner notes that the Stormwater Report (Petition, Appendix B) provides inspection checklists for construction and long-term Project operation and maintenance. During the construction phase of the Project, the following Best Management Practices (“BMPs”) will be inspected, evaluated and maintained/repaired, as necessary: silt fencing; compost filter socks; straw wattles; stabilized construction entrance; temporary sediment traps/basins and diversion swales; vegetated slope stabilization and energy dissipators. Long-term inspection and maintenance of BMPs will include: all vegetated areas; energy dissipators; diversion swales, sand filters, wet ponds and infiltration basins. A Stormwater Pollution Prevention Plan (“SWPPP”) has been developed, and it specifies specific maintenance protocols to be implemented throughout the construction phase and ongoing post-construction term of the Project. Typical protocols will address the depth of sediment to be removed from the BMP areas; the method of removal (e.g. light weight equipment, by hand); and, disposal requirements.

29. Appendix B Stormwater report p 2 states the “quality of stormwater run-off leaving the Site will be improved compared to existing”. How does the proposed development of 75 acres of forested headwater watershed result in cleaner stormwater run-off compared to existing conditions? What pre- and post-construction pollutant loading levels were used and what analysis performed to support this statement?

The site as it currently stands has no runoff, stormwater or sedimentation controls, despite the logging activity that has occurred there. The proposed Project has temporary and permanent sediment control measures and stormwater management features—which have been designed to meet State guidance for erosion control and water quality treatment—and are incorporated into the Site design. Once Project construction is complete, the Site will generate very low pollution; the Petitioner anticipates that the only potential cause thereof will be from the vehicles when infrequent Operations & Maintenance inspections occur.¹

30. Slope lengths of 300-500 ft. in length are proposed upgradient of the sediment basins. Explain why temporary sediment traps, diversion swales, mulch berms or other run-off control and soil stabilization measures are not provided within the solar array areas to implement sediment and run-off control measures closer to the source of potential erosion?

Due to the nature of solar facility construction, the majority of the Site must be accessible for construction equipment to navigate. As shown on the Site Plans, the Project proposes the installation of compost filter socks and straw wattles throughout various areas around the Site, which will assist in the mitigation of runoff channelization prior to entering the perimeter basins.

31. Basin 1 test pits indicate basin will be excavated to ledge at contour 190. What depth and type substrate and growing medium will be provided? Will basin be over-excavated into ledge? This is identified as a stormwater basin pond. How will this sediment basin be converted to a stormwater pond?

The Project does not contemplate over-excavating any stormwater basins to remove ledge; the construction sequence proposes removing sediment from all of the measures prior to the completion of construction. The respective sediment traps and basins have been designed so that they can be converted to long-term stormwater basins without modification(s)—with the exception of the installation of sand filter beds.

32. Basins 2 and 3 discharge to slopes in the northeastern portion of the site where narrow trails occur, as indicated on the property survey sheets, and continue onto adjacent properties. These trails are highly erodible. What measures will be taken to stabilize these areas and prevent discharge from the stormwater basin channelizing and eroding these trails and carrying sediment off the site to downgradient wetlands?

¹ Of note, the Petitioner’s O&M Plan requires that any/all vehicles used on-site must be properly maintained and serviced so as not to create spill(s) or release hazard(s).

Presently, stormwater runoff along the easterly side of the proposed Project Site channelizes in multiple locations prior to exiting the parcel limits. The Project is designed to maintain these drainage patterns. Stream channel protection (i.e., the reduction of runoff from two (2)-year rainfall events) and peak flow mitigation (up to, and including, the 100-year rainfall event) have been factored into the Project's stormwater management design. Computations for same are included in the Stormwater Report (Petition, Appendix B).

33. Basin 3 is an impoundment at grade with a 4- 6 ft. high fill embankment downgradient of a 500 ft. length flow path. Failure of the fill embankment during heavy rain events will discharge sediment onto steep terrain upgradient of Stony Brook with no access to remediate sediment deposition.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, all of the Project's proposed stormwater basins have been designed to minimize fill embankments and to maximize infiltration into the native soil to the extents practicable. The Petitioner intends to construct the fill embankments in accordance with any documentation from the *2004 Connecticut Stormwater Quality Manual*, as well as standard engineering practices, respecting slope percentages, compaction, vegetation, and erosion control. As such, the Petitioner does not anticipate that Basin 3 will fail as described in this Interrogatory. Notwithstanding the foregoing, even in the unlikely event of a basin failure, the Petitioner does not believe that the consequences will be as severe as this Interrogatory suggests. The reason for this is that, while Basin 3 is proposed to incorporate a fill berm at the downstream end, the basin will only impound a maximum depth of approximately two (2) feet of stormwater runoff above the sand filter, and less than four (4) feet above existing grade, prior to overflowing at the riprap spillway.

34. Basin 4 is constructed with a 4 ft. high fill impoundment at the southeast corner where the outlet is located. Steep slopes and an intermittent watercourse of wetland 2 occur approximately 100 ft downgradient of the level spreader outlet. Failure of this fill embankment will discharge sediments to wetland 2 and steep slopes tributary to Stony Brook.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, all of the Project's proposed stormwater basins have been designed to minimize fill embankments and to maximize infiltration into the native soil to the extents practicable. The Petitioner intends to construct the fill embankments in accordance with any documentation from the *2004 Connecticut Stormwater Quality Manual*, as well as standard engineering practices, respecting slope percentages, compaction, vegetation, and erosion control. Basin 4 has been designed in accordance with all applicable state regulation(s) and guidance; therefore, the Petitioner does not anticipate that it will fail as described in this Interrogatory. Notwithstanding the foregoing, even in the unlikely event of a basin failure, the Petitioner does not believe that the consequences will be as severe as this Interrogatory suggests. The reason for this is that, Basin 4 will only impound a maximum depth of approximately two (2) feet of stormwater runoff above existing grade prior to overflowing at the riprap spillway. The Project proposes discharging the outfall from Basin 4 to an existing channelized drainage path, which is not tributary to the nearby Wetland 2.

35. Basin 5 is constructed with a 4-6 ft. high embankment fill in an area of seasonal high groundwater, and downgradient of a 500 ft. flow path. Failure of this fill embankment will discharge sediments to wetland 2 and steep slopes tributary to Stony Brook.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, all of the Project's proposed stormwater basins have been designed to minimize fill embankments and to maximize infiltration into the native soil to the extents practicable. The Petitioner intends to construct the fill embankments in accordance with any documentation from the *2004 Connecticut Stormwater Quality Manual*, as well as standard engineering practices, respecting slope percentages, compaction, vegetation, and erosion control. Basin 5 has been designed in accordance with all applicable state regulation(s) and guidance; therefore, the Petitioner does not anticipate that it will fail as described in this Interrogatory. Notwithstanding the foregoing, even in the unlikely event of a basin failure, the Petitioner does not believe that the consequences will be as severe as this Interrogatory suggests. The reason for this is that, Basin 5 will only impound a maximum depth of approximately two (2) feet of stormwater runoff above the basin bottom, and less than four (4) feet above existing grade, prior to overflowing at the riprap spillway.

36. Basin 16 is constructed with a 250 ft. length embankment fill approximately 6 ft. in height. Failure of this basin will result in sediment impacts to wetland 1. Additional stabilization measures and perimeter controls to contain sediment and stabilize this embankment should be included. Additional temporary sediment traps should be installed upslope within the contributing drainage area of the array to reduce erosion and sediment loss, and reduce slope length.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, all of the Project's proposed stormwater basins have been designed to minimize fill embankments and to maximize infiltration into the native soil to the extents practicable. The Petitioner intends to construct the fill embankments in accordance with any documentation from the *2004 Connecticut Stormwater Quality Manual*, as well as standard engineering practices, respecting slope percentages, compaction, vegetation, and erosion control. As a result, the Petitioner respectfully states that additional stabilization measures are not required. Regulators generally disfavor sediment traps that are linked in series. Moreover, Basin 16 will only impound a maximum depth of approximately four (4) feet of stormwater runoff above existing grade prior to overflowing at the riprap spillway. A line of straw wattle is proposed along the top edge of Basin 16, and multiple rows of compost filter sock are proposed along the primary flow path of runoff to this basin, which will assist in capturing sediment prior to reaching same.

37. How will sediment basin outlets and level spreaders be replaced with permanent stormwater outlets? What is the anticipated degree of disturbance to the fill embankment for restoration or replacement of the outlet controls and level spreaders?

The riprap spillways and energy dissipators that will be built during construction, double as the long-term outlet protection, and are not proposed to be modified following the initial installation

of the solar facility. The construction sequence proposes removing sediment from all of the measures prior to the completion of construction.

38. Temporary sediment basin 16A is not indicated on the erosion and sediment control plans. Where does the diversion swale noted on plan sheets C-5.3 and C-5.5 discharge?

It is intended to discharge the diversion swale noted on Plan Sheets C-5.3 and C-5.5 to Basin 16. The reference to “Sediment Trap 16A” on the Plans was made in error; and the Site Plans will be revised to remove this reference. Basin 16 has been sized appropriately as a Temporary Sediment Basin to handle the acreage of flow tributary to it.

39. The carbon debt analysis should factor into the debt a 60-80 year time period following decommissioning of the site for loss of sequestered carbon by a mature temperate hardwood forest until a mature hardwood forest is re-established on the project site.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner is using the carbon debt analysis that the Siting Council has recommended. In the event that the Siting Council endorses an alternative analysis—such as that offered by the Town—the Petitioner would readily abide therewith.

40. Reforestation should be required for site restoration as part of the project decommissioning.

This does not appear to be an interrogatory, but rather commentary submitted by the Town. To the extent an answer is required, the Petitioner is committed to leaving the land seeded and in a condition that would readily allow the present landowner to reforest the Project Area, if he so desires. However, the Petitioner notes that because the current landowner was locally permitted and performed a timber harvest across a significant portion of the Project Site, reforestation is not required (nor entirely appropriate) in this instance. Following the decommissioning of the Project, the Petitioner intends to stabilize and re-vegetate the Site, as necessary, to minimize erosion and mitigate any potential land disturbance resulting therefrom. The Petitioner’s Decommissioning and Restoration Plan (Petition, Appendix D) contemplates the following remedial measures/actions for the Site:

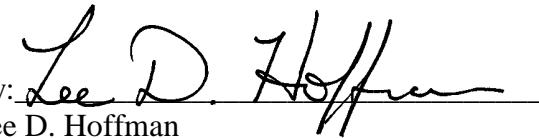
Decommissioning consists of physical removal of all facility components, such as solar arrays, equipment (e.g. batteries, inverters, and transformers), structures, security barriers and fencing, facility signage and transmission lines from the site. In addition, Applicant/Owner will dispose of all solid and hazardous waste in accordance with all applicable regulations. Decommissioning will also include restoration of the site. Applicant will stabilize and re-vegetate the site as necessary to minimize erosion. If desired, Applicant/Owner would seek Council approval to leave landscaping or specified below-grade foundations in order to minimize erosion and site disturbance. Once all Project equipment has been removed, additional activities will occur to return the property back to conditions similar to pre-construction. Reclamation will restore vegetative cover and hydrological function after the

closure of the facility. Any excavated areas remaining after the removal of equipment pads, access road based material, or fence posts will be backfilled with locally imported soil to match existing onsite soils. Once landform features and soils are restored, a seed mix will be applied to match the existing onsite groundcover.

Moreover, it should be noted that, because the Petitioner is leasing the subject parcel, the Petitioner has no control over how the Site will be used post – decommissioning (and correspondingly, post-termination of the Lease).

Respectfully Submitted,

GRE GRACRUX LLC

By: 
Lee D. Hoffman
lhoffman@pullcom.com
Amanda G. Gurren
agurren@pullcom.com
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103-3702
Ph. (860) 424-4315
Ph. (860) 424-4338
Fax (860) 424-4370
Its Attorneys

CERTIFICATION

I hereby certify that a copy of the foregoing document was delivered by e-mail to the following service list:

The Honorable Robert J. Brule
First Selectman
Waterford Town Hall
15 Rope Ferry Road
Waterford, CT 06385
rbrule@waterfordct.org
apiersall@waterfordct.org

Jean-Paul La Marche
Development Manager
Clean Focus Renewables, Inc.
jean-paul.lamarche@cleanfocus.us

Deborah Moshier-Dunn
VP, Save the River-Save the Hills, Inc.
P.O. Box 505
Waterford, CT 06385
debm0727@sbcglobal.net

Emily A. Gianquinto
EAG Law LLC
21 Oak Street, Suite 601
Hartford, CT 06106
(860) 785-0545
(860) 838-9027 -fax
emily@eaglawllc.com