



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

### VIA ELECTRONIC MAIL

August 2, 2018

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

**RE: PETITION NO. 1347** – 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 located at 117 Oil Mill Road and associated electrical interconnection to Eversource Energy's existing substation at 325 Waterford Parkway North in Waterford, Connecticut.

Dear Attorney Hoffman:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than August 30, 2018. To help expedite the Council's review, please file individual responses as soon as they are available.

Please forward an original and 15 copies to this office, as well as a copy via electronic mail. In accordance with the State Solid Waste Management Plan, the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

Any request for an extension of time to submit responses to interrogatories shall be submitted to the Council in writing pursuant to §16-50j-22a of the Regulations of Connecticut State Agencies.

Sincerely,

Melanie A. Bachman  
Executive Director

c: Council Members

Jean-Paul La Marche, Development Manager, Clean Focus Renewables, Inc.  
Parties and Intervenors

MB/RM/lm



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### Petition No. 1347

### GRE GACRUX LLC – Waterford

### Interrogatories- Set One

August 2, 2018

### Project Notice and Development

1. Site Plan BS-1 depicts the Dewolf parcel as abutting the project site. Was notice provided to this abutter?
2. What is the relationship between the Petitioner and the developer? If the project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s)?
3. What entity/subcontractor will be constructing the facility? Has this entity/subcontractor constructed other solar projects 5 MW or greater in the Northeast? If so, list similar projects.
4. Does the Petitioner have a contract to sell the electricity and renewable energy certificates (RECs) it expects to generate with the proposed project? If so, to which public utility? If the electricity is to be sold to more than one public utility, provide the percentage to be sold to each public utility.
5. What authority approves the power purchase agreement (PPA) for the facility? Has a PPA with an electric distribution company been executed? If so, at what alternating current megawatt output? If not, when would the PPA be finalized?
6. What is the length of the PPA? Are there provisions for any extension of time in the PPA? Is there an option to renew?
7. Is the alternating current megawatt capacity of the facility fixed at a certain amount per the PPA and/or the RFP? Is there an option within the PPA to allow for changes in the total output of the facility based on unforeseen circumstances?
8. Was this Project selected using a higher output than what is proposed? If so, why was the output reduced to 16.78 MW AC?
9. Would the petitioner participate in the ISO-NE Forward Capacity Auction? If yes, which auction(s) and capacity commitment period?

### Proposed Site

10. Provide a depiction of the site on aerial imagery of the following:
  - a) property boundaries that comprise the project site;
  - b) electrical interconnection equipment, utility pole locations and tie-in with the transmission/distribution grid or substation; and
  - c) solar field, access roads, detention basins, and embankments.

11. 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)? For example, is/are the parcel(s) classified as "Tillable D – good to fair"? How would the solar Project affect the use classification?
12. Have any land use development plans been previously approved by the municipality for the proposed site in the past?
13. What type of development and minimum lot size is required per the RU-120 zoning designation?
14. Petition p. 4 lists residential use to west and north - would the Project be visible from these residential areas?
15. 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.
16. Does the decommissioning plan have any provisions for the removal of the stormwater control system or will the system have to remain to maintain hydrological conditions?

### **Energy Production**

17. Identify the loss assumption(s) for the proposed project. For example, would the proposed facility provide 16.78 MW AC at the point of interconnection? Is the 16.78 MW AC rating based on operation under optimal conditions or is it an average of expected daily conditions?
18. What is the projected capacity factor (expressed as a percentage) for the proposed project?
19. Referring to Petition p. 16, why was a solar panel orientation of 25 degrees selected for this facility. Is the project designed to maximize annual energy production or peak load shaving?
20. Would the impact of soft shading, such as air pollution or hard shading, such as bird droppings or weather events, such as snow or ice accumulation, dust, pollen, etc. reduce the energy production of the proposed project? If so, was this included in the proposed projects capacity factor and/or loss assumptions?
21. Would the power output of the solar panels decline as they age? If so, estimate the percent of loss per year.
22. Referring to Petition p. 8, what is the status of the interconnection agreement with Eversource?
23. Will the proposed solar system employ a single connection to the utility substation? Should one section of the solar array experience electrical problems such that the section shuts down, will other sections of the system still operate and transmit power to the substation?
24. Referring to Petition p. 8, provide more detail/drawing for the "utility runs" that interconnect the site with the substation.
25. Is the project being designed to accommodate the potential for a 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.
26. Could the project be designed to serve as a microgrid?

## Site Components and Solar Equipment

27. Referring to Petition p. 6, provide the following information regarding the Project solar panels:
- What is the anticipated size of the panels?
  - What is the efficiency of the solar panels?
  - What is the minimum and maximum overall height of the panels above grade?
  - Provide a specification sheet if the panel model has been selected.
28. Referring to Petition p. 6, the panels will be mounted on steel racks with either concrete ballast supports or driven posts.
- Will the determination be made to use either ballast mounts or driven posts based in daily in-field conditions infield or on pre-construction geo-tech data?
  - What depth to bedrock will determine what type of foundation (driven posts, screw piles, ballasts) will be used?
  - What is the maximum grade for the safe installation of the ballast mounts? Would an area of excavation be required under each mount to create a level surface?
  - 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?
  - Are residential areas abutting the proposed site served by private wells? Can vibrations caused by driven installation of the posts cause sediment buildup or other negative effects on nearby wells?
  - How many panels will each rack hold?
  - Provide a specification sheet if the rack system model has been selected, or, if the exact model has not been determined, a sheet for a similar system currently available.
29. Referring to Petition p. 7, is the wiring for the panels to the string inverters installed on the racking? If wiring is external, are there any concerns regarding damages related to weather, vegetation maintenance, animals?
30. Referring to Petition p. 7, provide a description of the route/type of installation of the electrical conduit connecting the string inverters to the transformer pads and the transformer pads to the utility run. If areas of bedrock are encountered, how will the electric conduit be installed?
31. If bedrock is encountered in perimeter fence installation areas, how would the fence post be installed? How will equipment access these areas? What equipment would be used to install the fencing in the steep slope perimeter areas?
32. Referring to Petition p. 8, 3.3.5 Fencing, how many solar arrays entry point gates are there?

## Public Safety

33. If there was an operational issue in one section of the solar field, can this section be disconnected at the inverter location so that the remaining sections can still produce power?
34. Would the project comply with the National Electrical Code, the National Electrical Safety Code and any applicable National Fire Protection Association codes and standards?

35. Where is the nearest airport and/or airfield? Would glare from the solar arrays have any impact on air navigation? Has a glare analysis been conducted? If not, under what circumstances would a FAA glare analysis be required?
36. Are there any existing or proposed outbuildings, structures, etc. that could present a hazard to the solar facility equipment or interconnection route?
37. 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? How would the entire facility be shut down and de-energized in the event of a fire?

### Environmental

38. What is the average depth to groundwater at the proposed project site?
39. Is the project located within a DEEP-designated aquifer protection area?
40. Referring to Petition Tab C, page 7.
  - a) Does the referenced 750-acre contiguous block of forest represent only core forest or both edge forest and core forest?
  - b) Provide an aerial photograph that depicts pre- and post-construction edge and core forest with associated acreage of each.
  - c) What is the anticipated impact on interior forest dwelling birds that use this existing identified core forest area?
  - d) How might this Project impact the abundance and distribution of migratory and interior forest nesting birds?
  - e) How are stated changes to core forest as a result of project construction consistent with the statement made on Petition p. 23 (...the Project will not alter areas of prime farmland or core forest.)
  - f) Referring to p. 11, has the current logging activity by the property owner altered the characterization that the Project site is in the middle of a 750-acre contiguous block of forest?
41. Would there be any coordination between the commercial logging company and the Petitioner in regards to further site clearing for the Project and/or utilizing the existing logging skid paths?
42. Does the Petitioner intend to harvest the remaining trees within the Project area for commercial purposes or chip on-site for re-use? Given the recent logging activities on the property by the property owner, will tree removal and/or grubbing for the Project be phased or will it occur in one distinct operation?
43. Provide the carbon debt payback period in years (or days) using the formula below with U.S. EPA data.
 
$$\text{Carbon Debt Payback in Years} = \frac{(\text{Acres of trees to be cleared})(0.85 \text{ MT CO}_2 \text{ per acre-year})(\text{Service life of facility in years})}{(\text{Annual Energy Production in KWH})(7.44 \times 10^{-4} \text{ MT CO}_2 \text{ per KWH-year})}$$
44. Referring to Petition p. 8, provide a diagram that shows areas of clearing necessary to prevent shading of the solar arrays. Will stumps be left in place in these areas? How were the limits of tree shading determined?
45. Referring to Petition p. 8, does the 90 acres of clearing include stump removal/grubbing? If not, how many acres would require grubbing?

46. Referring to Petition Tab C, page 5. One state-listed species, the eastern ribbon snake, was identified on-site.
- Was this observation reported to the Department of Energy and Environmental Protection (DEEP) Natural Diversity Database program?
  - Would the recent on-site logging activities by the property owner within and adjacent to wetlands/wetland buffer areas enhance ribbon snake habitat?
  - What measures, if any, are being taken to protect the eastern ribbon snake during construction beyond establishing a proposed 200-foot wide wetland buffer zone from the solar panel area?
47. If applicable, would the Petitioner comply with any DEEP recommended seasonal construction restrictions due to the presence of any protected species on the site?
48. Would glare from the solar panels attract birds (ex. appear as water) and create a collision hazard? Are there any studies in the northeast regarding glare and avian mortality for ground mounted solar arrays in the northeast?
49. Is the site within the range of the Northern-long eared bat? If so, would any proposed tree clearing occur within 0.25 miles of a known northern long-eared bat hibernaculum or within 150 feet of a known occupied maternity roost tree?
50. What is the Town's regulated buffer zone from wetland resource areas?
51. Referring to Petition Tab C, p. 9, the recommended buffer zone from a wetland area is 200 feet for solar arrays and other non-pervious surfaces. Would a compacted gravel road be considered a non-pervious surface?
52. Why do Site Plan sheets SP-5 and SP-8 utilize a 150-foot wetland buffer (*50-foot no disturbance, 100 foot selective disturbance*) whereas the remaining Site Plan sheets utilize a 200-foot buffer (*100-foot no disturbance, 100 foot selective disturbance*)?
53. Does the solar field layout on Sheet SP-5 and SP-8 conform with the 200-foot wetland buffer recommendation listed in Petition Tab C, p. 9? If not, can the site plan be altered to conform?
54. Describe the existing logging road crossing of Wetland 1. What upgrades of this crossing are necessary to both facilitate access to the solar field and protect existing wetland resources?
55. Referring to Petition Tab C, p. 10, Impacts to Wildlife and Habitats:
- Provide an aerial photograph of the site that depicts the solar array layout and the location of the vernal pools, and 100-foot and 750-foot buffers around each pool to represent the Vernal Pool Envelope (VPE) and Critical Terrestrial Habitat (CTH) zones. What percentage of the VPE and CTH of each vernal pool is developed pre and post-construction?
  - What, if any, project development activities would occur within the VPE and CTH areas? Are any construction restrictions recommended to protect vernal pool functions and values and obligate species?

### Facility Construction

56. What dataset was used obtain the topographic information provided on the Project drawings?
57. What is the proposed minimum/maximum grade of the solar field area?

58. Would the solar rack support ballasts be cast on-site? If so, indicate the location of the ballast mold area and concrete wash out station. Provide a design detail of the concrete wash out station. If not, would the Petitioner construct them off-site or purchase from a concrete vendor?
59. Has a comprehensive geotechnical study been completed for the site to determine if site conditions support the overall Project design? If so, please provide. If not, has the Petitioner anticipated and designed the Project with assumed subsurface conditions? What are these conditions?
60. Will blasting be required to install site infrastructure. If not, what methods would be used if bedrock is encountered? If so, how would blasting affect stormwater drainage calculations and the proposed stormwater controls?
61. If site clearing and construction work is conducted during winter months, what additional erosion and sedimentation controls would be deployed to control potential accelerated runoff due to frozen or partially frozen ground?
62. Petition p. 8 states initial work involves clearing and installation of E&S controls, including basins. In what order would these three steps occur?
63. Petition Vol. 3, p. 2 mentions the use of silt fence. Have other perimeter controls been examined such as compost filter sock or a combination of both in construction areas adjacent to wetlands?
64. Referring to Petition pp. 9&10, Section 3.5 - Construction schedule and sequencing: *Land preparation and site work is anticipated through the end of fall 2019, with the final installation of array equipment in fall of 2019. Final site stabilization, testing and commissioning are expected to be completed in late fall of 2019.*
  - a) Construction schedule on p. 10 is inconsistent with the written narrative. According to the construction schedule, commissioning is to occur in second quarter of 2019. Which is correct?
  - b) Based on the construction schedule, site work is to start in March 2019. How would erosion and control measures be installed under possible snow conditions and frozen ground? How might this impact sedimentation issues both on-site and off-site?
  - c) Sediment and Erosion Control Notes, on Site Plan EC-17 states "The anticipated starting date for construction is spring 2019 with completion anticipated spring 2020. Please explain timeline discrepancies.
  - d) Does the project construction schedule account for seasonal wildlife restrictions, temporary site stabilization, phased implementation of stormwater controls, and weather delays?

65. Referring to Petition Vol. 3, SWCP Section 2. Construction Sequencing:
- a) According to Table 2, p. 8, there could be as much as 4-6 weeks between the time Crew 4 completes a phase of the project and Crew 7 begins soil stabilization practices. How will the site to be stabilized during this 4-6 week timeframe? What erosion and control measures will be utilized during this transition period?
  - b) The construction schedule indicates approximately 42 weeks of activity. What 10 weeks of the year are not expected to be active construction periods?
  - d) Provide detailed information regarding the composition/mesh type of the erosion control blankets to be utilized on-site.
66. Referring to the EC series Site Plans, what symbol delineates phase boundaries? Some of the Site Plans show work outside of a phase boundary (ex. EC- 7, EC -11), what phase would this work occur in? Using Site Plan EC-0, please divide the plan into four sections for ease of review. Place phase boundaries on the plan using the phasing schedule described in Petition Vol. 3 SWCP.
67. Referring to Site Plan EC-17, Construction Sequence:
- a) Note 12 states inspections of erosion control measures are to be conducted weekly or after rainfall exceeding 0.25 inch. Why are inspections not specified prior to forecasted rain events? Additionally, would inspection of erosion controls during heavy rain events be prudent to ensure erosion controls are not failing, causing downgradient and potentially off-site deposition of sediment?
  - b) Note 18 & 19 discuss temporary seeding followed by solar racking and panel installation. What is the time interval between these two tasks? How will seeded grasses be maintained to provide temporary soil stability and infiltration if these newly stabilized areas will be subsequently impacted by vehicles and construction equipment used to install the racking and solar panels?
68. Estimate the amounts of cut and fill in cubic yards for site construction.
69. Site Plan GN-1, Note 32 is incomplete. Please provide the missing information.
70. Referring to the Grading and Drainage Site Plans, provide the following:
- a) Describe the composition of the level spreaders and how their locations were chosen.
  - b) Plan GD-7 – how would the proposed site grading, road construction and swales be constructed on the eastern side of the site if large amounts of ledge are encountered?
  - c) Plan GD-8 – could the proposed level spreader be designed to more accurately blend in with the existing topography and reflect the contours of the discharge point?
  - d) Plan GD-12, 14 & 15 – would the water discharged from site detention features via pipes and level spreaders increase stormwater flows and volume concentrations on abutting properties?
  - e) Some of the proposed stormwater structures are located on property lines. How would erosion and sediment control measures be installed downgradient of the structures located on property lines?
  - f) Why does basin 304.1 (GD-07) require road access from the north and south?
  - g) How will vehicles access basin 303.1 (GD-10/11)?
  - h) Why does basin 100.1 (GD-15) require road access from the east and west?
  - i) How is stormwater being collected, controlled from the roadways near basins 304.1 and 101.1?
71. Referring to Petition Vol. 3, SPCP p. 2, the narrative calls for the installation of a gravel drip strip along the leading edge of each solar panel. Provide a site plan detail of the strip.
72. How will detention basins located on bedrock promote stormwater infiltration? Are the runoff calculation's based on an empty detention basin? If there is little infiltration, how can the stormwater control system handle multiple short duration, high precipitation storm events?

73. Petition Vol. 3, Stormwater Management Report p. 3 states the discharge of basins would be onto rip rap, level spreaders or through overland flow. What are the determining factors as to what discharge method to use? Provide construction detail for the level spreaders and rip rap outfalls.
74. The stormwater controls are focused on retaining stormwater at the perimeter of the site using various basins and swales with discharge at or near the property boundary. Have additional provisions for stormwater control been contemplated to intercept and reduce stormwater velocity, promote infiltration and minimize mobilization of soil in more interior areas to lessen the reliance of long swales and large basins at the site perimeter?
75. Petition Vol. 3, p. 24, what is a "low-malignance" seeded area?
76. How does the developer intend to promote and maintain grasses or other ground cover beneath the panels and within the solar array rows? Would bare ground areas or patchy growth increase site runoff and thus necessitate additional stormwater volume control?
77. Using the Overall Grading and Drainage Plan- GD-0 – Please divide the plan into four sections for ease of review. If possible, place arrows on the plan indicating the proposed direction of stormwater flows.
78. Site Plan C-1 depicts "native shrub plantings". Will plantings be installed in these areas or will these areas only be seeded?
79. Referring to Petition Vol. 3, Stormwater Management Report p. 33:
  - a) provide a schematic of the perimeter solar array stormwater buffer system to be used. Will this buffer system be implemented around the entire project perimeter, including roads and basin areas?
  - b) explain why it is recommended that "water quality volume and attenuation" be waived for the Project.
80. Has the Petitioner consulted with DEEP regarding the stormwater control plan? If so, when? Were any recommendations from DEEP incorporated into the plan?
81. Is the stormwater control plan at concept plan or is it in its final form, to be submitted as part of the DEEP General Permit? If the plan is conceptual, in what areas can solar panels be installed if there are additions or relocations to the stormwater system that require space in the current proposed solar array area?
82. Can the project be constructed to conform with the attached guidance from DEEP entitled, "Stormwater Management at Solar Farm Construction Projects", dated September 8, 2017?
83. Please respond to the Town of Waterford's comments submitted to the Council on July 18, 2018.

#### **Maintenance Questions**

84. Petition p. 13 mentions an Operations and Maintenance (O&M) Plan. Has a preliminary O&M Plan been prepared? If so, please submit.
85. Would any mowing be required under or around the proposed solar panels/modules, and if so, approximately how often would mowing occur? Would the Petitioner adhere to any seasonal mowing restrictions that may be recommended due to the presence of any protected species?

86. Would the installed solar panels require regular cleaning to remove dust, dirt, bird droppings etc.? How would this be accomplished? Would any chemicals be used or only water? Would this maintenance activity have any impact to adjacent wetlands, watercourses or groundwater?
87. Would the petitioner store any replacement modules on-site in the event solar panels are damaged by hail, prey shells or other impact hazards? How would damaged panels be detected?



## **Stormwater Management at Solar Farm Construction Projects September 8, 2017**

Solar farms are on-the-ground installations of arrays of photovoltaic cell panels, supporting structures and related equipment for the production of electricity. As with other types of construction projects, the construction of solar farms can involve land clearing, grading, excavation, trenching, dewatering and similar activities that create land disturbances which potentially result in soil erosion and sediment discharges polluting wetlands, streams and other surface waters. Construction-related land disturbances of 0.5 acres or larger are regulated in Connecticut pursuant to the Connecticut Soil Erosion and Sediment Control Act under Sections 22a-325 to 22a-329, inclusive, of the Connecticut General Statutes ("CGS"). Construction-related land disturbances of one (1) acre or larger are also regulated under CGS Section 22a-430 and under Section 402(p) of the federal Clean Water Act and the National Pollutant Discharge Elimination System ("NPDES") program. Prior to the start of such regulated activities, authorization is required from local authorities and, for larger projects, the Connecticut Department of Energy and Environmental Protection ("Department"). Construction projects involving five (5) or more acres of land disturbance require an individual NPDES discharge permit from the Department, or may be eligible to register for coverage under the Department's NPDES General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (general permit).

The Department has encountered repeated problems associated with solar farm construction projects covered under the general permit, from the registration process through construction activities. Although in no way an exhaustive list, the following are common problems associated with solar farm general permit registration applications and ways to address such problems:

- Applicants have been submitting registration applications that lack the requisite information or the requirements necessary for authorization under the general permit. The Department requires a complete and sufficient application when a registration application is filed, and may reject any registration application it deems to be incomplete or insufficient.
- Applicants are not adhering to the sixty (60) day/ninety (90) day time frame for Department review as required by Section 3(c) of the general permit. While the Department has on occasion shortened the review timeframe, Applicants are expected to allocate no less than the requisite time frame for the registration application review process and must plan accordingly.
- Registration applications for solar farm projects often fail to identify the project's contractor and sub-contractors. Section 5(b)(1)(viii) of the general permit mandates that this information be included in the registration application.

- Applicants have been repackaging the Siting Council submittal, which is not acceptable. Section 3(c)(2)(D) of the general permit mandates that the application submittal include only materials required to support the Stormwater Pollution Control Plan ("SWPCP"). This information must be up-to-date and accurate. Any superfluous information delays the registration application review process.
- SWPCPs for solar farm projects are often lacking sufficient detail and information. An approvable SWPCP shall include, but not be limited to, the location of all erosion, sediment and stormwater control measures including detailed design cut sheets with supporting calculations, construction means and methods, project phasing (i.e., site planning, pre-construction, construction, and post-construction stabilization, etc.), construction sequencing and a construction schedule.
- The Applicant's design professional must be well-versed in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control ("E&S Guidelines"), specifically the techniques found in Chapter 4, Large Construction Sites, the 2004 Connecticut Stormwater Quality Manual, as well as *current* best management practices (BMPs) recognized by the International Erosion Control Association (IECA), provided such BMPs are equal to or better than the E&S Guidelines.
- From the Department's perspective, an approvable SWPCP will include methods for avoiding compaction of soils, disconnection and reduction of runoff associated with solar panel arrays, avoidance of concentration of stormwater, and other measures necessary to maintain or improve pre-construction hydrologic conditions.
- Applicants need to follow the SWPCP review checklist when preparing the SWPCP, giving specific attention to post-construction stormwater controls and the development of a detailed long-term maintenance plan to ensure that the SWPCP meets the terms and conditions of the general permit.

Subsequent to authorization for coverage under the general permit, the Registrant is responsible for ensuring compliance with all terms and conditions of the general permit and the approved SWPCP once construction has been initiated. However, for solar farm projects, Registrants often fail to comply with the terms and conditions of the general permit, including the approved SWPCP. In particular, Department staff have observed the following issues that a routine inspection protocol and proper oversight, as required under the general permit, would have prevented, including but not limited to:

- pre-construction site planning and management deficiencies (e.g., existing vegetation, scheduling, training, phasing/sequencing, tree protection, etc.)
- ineffective placement, maintenance, and/or repair of administrative/procedural, vegetative, and structural BMPs (e.g., erosion, sediment and stormwater runoff controls, good housekeeping, materials management, and training)
- lack of thorough inspections
- ineffective or untimely corrective action
- ineffective stabilization practices
- ineffective permanent post-construction controls (i.e., store, treat and direct stormwater quality and quantity to pre-construction levels)

Such issues at solar farm construction projects raise concerns, since such projects often create areas of land disruption larger than the generally accepted BMPs of five (5) acres anticipated under the general permit. As a result, any applicant seeking coverage under the general permit

for a solar farm construction project should take care to address the issues noted above. While by no means exclusive, some recommendations that should be incorporated into a SWPCP to address these issues include:

- Ensuring that only a Professional Engineer and/or Landscape Architect, as defined in Section 2 of the general permit, who meets the qualifications described in Section 5(b)(4)(A)(ii) and who has been approved in writing by the Commissioner, serve as the Commissioner's agent to inspect the site and also serve as the qualified inspector for the purposes of Section 5(b)(4) of the general permit ("authorized professional"). Such authorized professional must remain in good standing with the Connecticut Department of Consumer Protection and be technically and ethically qualified to inspect the site and be retained for the duration of the construction project until the Notice of Termination acceptable to the Commissioner has been filed as described below.
- Ensuring that the authorized professional prepare a proposed inspection checklist to assure the construction project is being conducted in compliance with the terms and conditions of the general permit, and the approved SWPCP is implemented in accordance with the general permit. The inspection checklist shall comply with Section 5(b)(4)(B)(iii) of the general permit, and include a space for the authorized professional's signature and professional stamp.
- Ensuring that the credentials for the authorized professional proposed by the Applicant and the proposed inspection checklist prepared by such authorized professional be submitted for the review and approval of the Commissioner and be included with the registration application for the general permit. No other professional may serve as the authorized professional without the prior submittal of relevant credentials and inspection checklist for the Commissioner's review and written approval.
- Ensuring that the authorized professional personally perform all pre-construction, construction, and post-construction site inspections; perform inspections at the end of any storm event whether or not such storm generates a discharge; and prepare and submit all inspection reports including the supporting inspection checklists in compliance with Sections 5(b)(4)(A) and 5(b)(4)(B) of the general permit.
- Ensuring that the authorized professional report any violations of the terms and conditions of the general permit or the SWPCP to the Commissioner's designee within two (2) hours of becoming aware of such violation, or at the start of the next business day of becoming aware of such violation outside normal business hours and shall, within five (5) days, prepare and submit a signed and stamped written report, which documents the cause of the violation, duration including dates and times, and corrective action taken or planned to prevent future occurrences.
- Ensuring that if circumstances necessitate a revision to the SWPCP, the authorized professional works with the Permittee's design professional to ensure compliance with the terms and conditions of the general permit, and any such change to the SWPCP shall be submitted for the review and written approval of the Commissioner.
- Ensure that the authorized professional reviews all stormwater monitoring reports to evaluate the effectiveness of the SWPCP and to document any adverse impacts that any stormwater controls on the construction site or discharges from the construction site may have on wetlands, streams, any other receiving waterbodies. Such evaluation shall be documented in the inspection reports and inspection checklists performed pursuant to Section 5(b)(4) of the general permit.

- Ensuring that, in the event the authorized professional identifies a violation of the terms and conditions of the general permit, the SWPCP, or otherwise identifies adverse impacts on wetlands, streams or any other receiving waterbodies, that construction activity shall immediately cease and the site stabilized until such violation or adverse impacts have been corrected.
- Ensuring that reporting and record-keeping of all inspection checklists and inspection reports comply with the requirements of Section 5(d) of the general permit, except that a copy shall also be submitted electronically to the Department within ten (10) days from the date such inspection was performed.
- Ensuring that all inspection checklists and inspection reports comply with the requirements for Certification of Documents in Section 5(i) of the general permit, including the requirement that such checklists and reports shall also be prepared, stamped and signed by the authorized professional.
- After completion of a construction project, ensuring that a Notice of Termination is filed in compliance with Section 6 of the general permit, including the requirement that such Notice of Termination be stamped and signed by the authorized professional certifying that such authorized professional has personally inspected and verified that the site has been stabilized following the first full growing season (i.e., April through October) in the year following completion of the construction project.
- Ensuring that any transfer of the registration comply with the requirements of Section 5(m) of the general permit.

These recommendations are by no means intended to be exclusive. To help address the issues noted above, the Commissioner will also be considering the posting of a performance bond or other security, in accordance with Section 22a-6(a)(7) of the Connecticut General Statutes, to assure the solar farm construction project maintains compliance with the terms and conditions of the general permit and the SWPCP.