

## STATE OF CONNECTICUT

### DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546 NEWINGTON, CONNECTICUT 06131-7546 Phone:

September 16, 2019

Ms. Melanie Bachman Executive Director Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Dear Ms. Bachman:

Subject: Petition No. 1378
Greenskies Renewable Energy Solar
Photovoltaic Facility
Town of Stonington

The Department of Transportation has reviewed the above-mentioned Petition and offers the following comments.

The District 2 Special Services will need to review three complete sets of construction plans that show all work within the State highway right of way, all site work, any required easements and standard details for highway construction if a State Right of Way (ROW) encroachment permit is proposed. In addition, necessary permits and reviews of wetlands, watercourses, stormwater and Natural Diversity Data Base (NDDB) shall be review and acquire for the locations of interest at Taugwonk Spur Road.

Should you have any further questions, please contact, Ms. Latoya Smith, Utility Engineer (Utilities), at (860) 594-2533.

Very truly yours,

Andrzej Mysliwiec Transportation Supervising Engineer Bureau of Engineering and Construction Latoya Smith:ls bcc: Mark Rolfe

James A. Fallon-Leo Fontaine-Andrzej Mysliwiec-Derek Brown-Latoya Smith

James Chupas- John DeCastro-Christopher Brochu Edgar T. Hurle-Kevin Carifa-Desmond P. Dickey



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### CONNECTICUT SITING COUNCIL

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## Screening Checklist

# Connecticut Department of Transportation Potential Transportation Infrastructure Impacts Connecticut Siting Council Petition # 1378

Location: 35 Tangwork Spur Ro Stonington, CT

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1.	Is the proposed facility abutting the right-of-way of a State maintained highway?
	No Yes — Specify the location and show location on a detail site plan.
2.	Is access for construction and maintenance of the proposed facility needed directly from a State maintained highway.
<i>.</i> .	NoYes—Identify specify needs and access location.
	Is the proposed facility within or abutting a State owned Railroad Right-of Way?
	No Yes – Please provide an area and site plan.
4.	Is the proposed facility within a two mile radius of any lands classified as preserved scenic land in accordance with CGS Section 13a-85a, "Acquisition of land adjacent to state highways for preservation and enhancement of scenic beauty and development of rest and recreation areas", or any designated scenic road in accordance with CGS Section 13b-31c, "Designation of scenic roads"?
	No Yes



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## STATE OF CONNECTICUT DEPARTMENT OF AGRICULTURE

Office of the Commissioner



860-713-2501 www.CTGrown.gov

August 15, 2019

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

Re: Greenskies Renewable Energy LLC ("Greenskies")

Proposed Solar Photovoltaic Development 35 Taugwonk Spur Road, Stonington, CT

Dear Ms. Bachman,

Greenskies Renewable Energy, LLC has contacted the Connecticut Department of Agriculture ("Department") and informed us of their imminent filing of a petition for a declaratory ruling with the Connecticut Siting Council ("Council"). Greenskies proposes to construct a solar photovoltaic facility with a capacity of 5.0 megawatts, to be located at 35 Taugwonk Spur Road, Stonington, CT.

Section 16-50k(a) of the Connecticut General Statutes requires that for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland, "excluding any such facility that was selected by the Department of Energy and Environmental Protection in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j", the Department of Agriculture must represent, in writing, to the Connecticut Siting Council (CSC) that such project will not materially affect the status of such land as prime farmland.

Approximately 16 acres of prime farmland would be impacted by the installation of the solar panels, racking systems, equipment pads, access road, and the associated site work involved with this project. Our Department has reviewed documents submitted by the petitioner concerning this project, which include the following:

- 1) Preliminary site layout plan, dated July 15, 2019, prepared by Milone & MacBroom;
- 2) Site layout & grading plan, dated July 15, 2019, prepared by Milone & MacBroom;
- 3) USDA-NRCS farmland and hydrologic soils report, provided by Milone & MacBroom; and
- 4) Greenskies Renewable Energy, LLC Permit Drawings for the Stonington PV Solar Facility, dated August 9, 2019.

Department staff also met with Greenskies representatives to discuss the project background, proposed site plan, existing site conditions, how Greenskies intends to handle and manage the prime farmland soils, and how Greenskies would incorporate agricultural dual uses on the site.

Based on the above submittals and discussions, and pursuant to Section 16-50k(a) of the Connecticut General Statutes, the Department hereby represents to the Council that this project, as proposed, will not materially affect the status of such land as prime farmland provided that the following minimum conditions are met:

- 1. The handling and management of any/all prime farmland soils disturbed by construction activities is in accordance with energy industry best management practices, adhering to the most current Federal Energy Regulatory Commission (FERC) guidelines;
- 2. Any/all prime farmland soils are separated and stored on the farm site, and shall be used and applied solely for agricultural purposes;
- 3. In consultation with the farmland owner(s), a Farmland Restoration Plan shall be developed for the property to restore, at a minimum, an amount of acreage equivalent to the area disturbed, throughout the farm property for current and future agricultural purposes;
- 4. The Department shall administer the Farmland Restoration Plan. Such Farmland Restoration Plan shall be prepared by a soil scientist who is approved by the Department of Agriculture, and is currently on contract with a Conservation District located in Connecticut, for the purposes of preparation and review of Farmland Restoration Plans;
- 5. Greenskies shall be responsible for the costs of the farmland restoration work;
- 6. In consultation with the Department of Agriculture, Greenskies shall conduct at least two colocation or dual-use agricultural activities on the site. Such co-location or dual-use activities shall include but are not limited to, creating native pollinator habitat, beekeeping, small livestock grazing, and select crop propagation; and
- 7. Any/all agricultural research reports by the University of Connecticut, University of Connecticut Cooperative Extension, and/or the Connecticut Agricultural Experiment Station of the dual-use agricultural activities conducted on the site shall be submitted to the Department.

While the Department of Agriculture believes any loss of prime farmland is of concern, we also fully appreciate that agricultural producers need to have the ability to make business decisions that are in the best interest of their farms and their families. With these reasonable mitigation steps, this project should be allowed to proceed with the Council's declaratory ruling process. Please contact Stephen Anderson if you have any questions or concerns regarding this letter.

Sincerely.

Bryan P. Hurlburt

Commissioner

cc: Lee D. Hoffman, Esq., Pullman & Comley, LLC Gina Wolfman, Greenskies Renewable Energy, LLC Stephen Anderson, Connecticut Department of Agriculture Cameron Weimar, Connecticut Department of Agriculture



35 TAUGWONK SPUR ROAD, STONINGTON, CT 84-1-2A (7.67 acres)

SITE PROPERTY 1 (2016 AIRPHOTO)



## TAUGWONK SPUR ROAD, STONINGTON, CT 84-1-2 (86.78 acres)

**SITE PROPERTY 2 (2016 AIRPHOTO)** 



clear open space, the site is ideal for solar and would require minimal site work. The extent of clearing would be limited to only what is necessary to minimize shading losses (3-4 acres) within the forest already harvested by Wayne. Soil disturbance will only occur for the construction of access roads and equipment pads and trenching for electrical conduits. Panel racking would involve the placement of post-driven beams, leaving the fields virtually untouched. See Figure 5 – Proposed Project Layout and Figure 11A – Site Plan and Tree Clearing.

In the course of selecting the Project Site, members of GRE evaluated 16 potential sites for renewable energy projects throughout the state. GRE attempted to use former municipal landfills in Torrington, Ellington, Sprague, Waterbury, Ledyard, Columbia, East Lyme and Waterford for the siting of the Project. Unfortunately, in each instance the size of the buildable acreage on these landfills was too small to allow for the construction of a solar array of up to 5 +/- MW.

Alternative sites that were of suitable size were investigated in the towns of Lebanon, East Windsor, Monroe, Mystic, Haddam, Preston, Griswold and Thompson. In each case, environmental concerns and cost considerations rendered the sites less suitable than the Project site. The cost considerations were chiefly due to either measures that would need to be taken to address wetlands or wildlife concerns or due to the costs of interconnection to distribution or transmission facilities from these site. As such, the Project Site was selected as the site that most appropriately balanced the land required to construct the Project with the least amount of reconfiguration necessary to address wetlands and/or anticipated wildlife concerns associated with the construction of the Project.

### 3.2 Project Description

#### 3.2.1 Site Access

The site entrance for the Project will be located at the end of Taugwonk Spur Road (at the southwestern end of the site), which serves various commercial/industrial uses, including Haines Electric and a cellular tower. Taugwonk Spur Road connects to Taugwonk Road,



approximately 1,800 feet from I-95 interchange 91. The surrounding road network is anticipated to readily support construction-related traffic.

There is an existing, 3,600-foot/.68-mile gravel access road originating at 35 Taugwork Spur Road. This pre-existing road will be utilized to access the Project site, and additional on-site, 15-foot wide gravel roads will be constructed to provide access to the proposed solar PV facility, as shown in Figure 5 – Proposed Project Layout. A total of .54 miles of existing road will be used, and approximately .4 miles of new onsite road is proposed.

The site is relatively flat and minor (if any) grading is anticipated along the proposed access roads. This extent of grading will depend on topography and stormwater management requirements from the Connecticut Department of Energy and Environmental Protection ("DEEP"). The new access roads will be constructed according to the details provided in Drawing SD-2 of the permit plan set (Appendix A). Subgrade will consist of approximately 4 – 6 inches of gravel with 2 inches of process/crushed stone aggregate. Temporary material staging areas will be used during the approximately 6-month construction period (per phase) and will be located in the eastern-central portion of the site west of the proposed access road, as shown on the site plan, Drawing SE-3 of the permit plan set (Appendix A). See also Figure 6 - Slope Analysis Map.

### 3.2.2 Solar Facility Design and Layout

The proposed Project is comprised of six, independently-metered systems with a total design capacity of about 5.0 +/- MW AC. There will be two construction phases, each consisting of the installation of one 500 +/- kW and two 1,000+/- kW systems, each with its own equipment pad and utility interconnection. The proposed solar PV facility has been sited on the parcel to avoid and minimize potential impacts to natural resources and other areas of interest, while maximizing the use of previously disturbed areas. The proposed facility layout is shown in Figure 5.

The basis of design for the proposed layout/site plan includes 390-watt PV design modules (final size to be determined during procurement), 12-foot row spacing, and an approximately 25-degree tilt above horizontal. The estimated panel count is 16,680. Driven post panel racking



systems will be utilized throughout the Project site, unless subsurface conditions require an alternative installation method, which will be determined during pre-construction, geotechnical analysis. Posts are typically driven into the earth to depth of 9 feet below grade. The final site plan and layout will be provided in the final permit plan/design drawing set. A standard detail of a driven post foundation is provided as a detail on Drawing SD-2, Appendix A.

Wiring that connects the panels will be placed in above grade wire systems/cable trays or trenched conduits. The area under the panels will remain vegetated and will be seeded with a pollinator mix consisting of native New England species.

#### 3.2.3 Electrical Interconnection

The interconnection facility design will be conducted in accordance with the requirements of Eversource which is the utility for the area. The design and will allow for interconnection of the proposed Project to the existing distribution system. On October 1, 2018, GRE submitted three Interconnection Requests to Eversource for the first 2.5 +/- MW AC portion of the proposed solar PV facility – one 500+/- kW and two 1,000+/- kW systems, each separately metered. The impact/feasibility study fees were provided and impact/feasibility study results were completed in May 2019. Eversource is currently preparing the cost estimates for interconnection and is expected to provide GRE with both by the end early August 2019. See Appendix B for preliminary electrical plans; electrical drawings will be updated to reflect current site plan/layout before construction plans are initiated.

In June 2019, GRE submitted three additional Interconnection Requests to Eversource for the second 2.5+/- MW AC portion of the proposed solar PV facility – one 500+/- kW and two 1,000+/- kW systems, again, each separately metered. Review and feasibility study are pending. See Appendix B for preliminary electrical plans for the second phase of development.

The proposed Project will use both DC and AC electric lines, all to be contained within the Project Site. Buried electrical feeders are anticipated to be used throughout the site, as safety constraints are not expected. At the point of common coupling with Eversource, the feeders may transition to overhead lines, but the details of Eversource's equipment cannot be known at this time. Once Applicant receives the impact/feasibility study results, a discussion with



Eversource will be initiated and a plan for interconnection will be developed. It should be noted that there is an existing, underutilized three-phase transmission line with a right-of-way that runs through/bisects the site. GRE requested that Eversource consider permitting interconnection to that line and/or allowing GRE to use existing utility poles within the right-of-way. Unfortunately, Eversource informed GRE that this is not an option, due to legal concerns and utility guidelines. The interconnection route will run from the northwest corner of the proposed solar PV facility along the northern portion of the Project site to Taugwonk Road. At that point, there is three-phase service where the Project will interconnect.

GRE will install lines below grade and, where necessary, will run overhead lines using a prescribed number of wooden utility poles to reach Taugwonk Road. The designated points of interconnection will be determined once the impact/feasibility study results are received from Eversource.

### 3.2.4 Fencing and Site Security

The entire proposed solar PV facility/Project site, including all equipment, will be enclosed within a 7-foot tall chain-link fence, consistent with all applicable codes (e.g. National Electric Code and National Electric Safety Code). There will be locked gates at the entrance to the facility, located south of the proposed solar energy facility and at the northwestern corner of the Project site leading to the interconnection route. Locked gates will be used for emergency access and for standard operation and maintenance inspections and activities. All Town of Stonington emergency response personnel will be provided access codes to all on-site locks. To allow the passage of small wildlife species through and into the site, and prevent unauthorized access, all fencing will be installed with a gap at the bottom of the fencing of approximately six inches above the ground. See Figure 5 – Proposed Project Plan

## 3.3 Stormwater Management

Water quality measures included in the stormwater management design will maintain water quality both during construction and after completion of the Project. See Section 7.11, below, for a more detailed discussion of stormwater analysis methodology and design. Petitioner will apply to CT DEEP for a Construction Stormwater General Permit, and an on-site pre-application with DEEP stormwater personnel is currently scheduled to take place on August 22, 2019.