MICHAUD LAW GROUP
RENEWABLE ENERGY LAW IS OUR BUSINESS

Paul R. Michaud
Principal Attorney
175 Capital Boulevard
Suite 402
Rocky Hill, Connecticut 06067
Telephone: 860-338-3728
E-Mail: pmichaud@mlgcleanenergy.com
Website: mlgcleanenergy.com

December 23, 2020

**DELIVERED BY U.S. MAIL AND E-MAIL**

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

Re: PETITION NO. 1427: Proposed Up To 1.0 MW AC Photovoltaic Facility to Be Located At 0 Matthews Street and Interconnected At 125 Hill Street in Bristol, Connecticut; **Responses to Connecticut Siting Council Interrogatories – Second Set**

Dear Attorney Bachman:

SunJet Energy, LLC respectfully submits its written responses to the Connecticut Siting Council's Second Set of Interrogatories.

Please contact me if you have any questions or concerns.

Sincerely yours,

SUNJET ENERGY, LLC

Paul R. Michaud

Paul R. Michaud

Its Attorney

**Petition No. 1427**
**SunJet Energy, LLC**

**Interrogatories Responses - Set Two**
**December 23, 2020**

55. Referring to the response to Interrogatory 20, please provide the following information.
    a. Clarify if the proposed electric interconnection to Eversource's distribution system is overhead or underground.

**Response: The point of interconnection/change of ownership is located between the utility transformer on the equipment pad within the site outline at ground level where it connects to an underground circuit owned by the utility. This circuit runs underground from the equipment pad to two poles which then connect to the existing circuit.**

b. If the electric interconnection is overhead, identify the approximate location of each utility pole and the pole heights; and

**Response: All utility poles are shown on the provided plan.**

c. If the electric interconnection is underground, would a new riser pole be required? If so, identify the location and height. If not, explain how the facility would interconnect to Eversource's overhead distribution system.

**Response: No. A new riser pole will not be required at the equipment pad within the site outline. Please see response to Interrogatory 55a.**

56. The response to Interrogatory 31 stated the wetland technical report was provided in Attachment A; however, the wetland report was not included. Please provide the wetland technical report.

**Response: Please see the Wetland Technical Report attached.**

57. The Site plans submitted in Attachment A are of low resolution and are not legible. Please resubmit the site plans in a high-resolution format.

**Response: Please see the link: Link to Bristol Site Plans**
- https://allpoints.egnyte.com/dl/Zz7vclqjgy

58. The Petition Decommissioning Plan (Exhibit F) appears to be for another site. Please submit a project specific decommissioning plan.

**Response: Please see the Decommissioning Plan attached.**

# SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

95 Silo Drive * Rocky Hill * Connecticut * 06067 * (203) 272-7837 * ssesinc@yahoo.com


## WETLANDS/WATERCOURSES AND SOIL REPORT

All Green it, LLC
128 Farmington Avenue, Suite 162
Bristol, CT 06010

**SSES Job No:** 2020-24-CT-BRS

**Client Job No:**

**Site Inspection Date:** April 7, 2020
(wetlands delineated 10-3-2018)

**PROJECT TITLE AND LOCATION:** Lot 255A - Matthews Street, Bristol, CT
(Site is located just west of 125 Hill Street in Bristol)

**IDENTIFICATION OF WETLANDS AND WATERCOURSES RESOURCES**

**WETLANDS AND WATERCOURSES PRESENT ON PROPERTY:** Yes XX No

**Wetlands:** Inland Wetlands XX **Watercourses:** Streams XX

Tidal Wetlands Waterbodies XX

Remarks:

**VEGETATION COMMUNITIES PRESENT IN WETLANDS**

Forest XX Sapling/Shrub XX Wet Meadow Marsh Field/Lawn XX

**SOIL MOISTURE CONDITION**

Dry
Moist XX
Wet

**WINTER CONDITIONS**

Frost Depth: inches
Snow Depth: inches

*The classification system of the National Cooperative Soil Survey, USDA, Natural Resources Conservation Service and the State Soil Legend were used in this investigation. The investigation was conducted by the undersigned Registered Soil Scientist. A sketch map showing wetland boundaries and the numbering sequence of wetland markers, watercourses and soil types in both wetland and non-wetlands are included with this report. After the wetland boundary and/or watercourse flags have been located/plotted by the surveyor, it is recommended that a copy of the survey map be sent to our firm for review.* All wetland boundary lines established by the undersigned Registered Soil Scientist are subject to change until officially adopted by local, state or federal regulatory agencies.

**Respectfully Submitted by**

**SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.**

Scott D. Stevens

Scott D. Stevens
Registered Professional Soil Scientist

See attached pages

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
95 Silo Drive * Rocky Hill * Connecticut * 06067 * (203) 272-7837 * ssesinc@yahoo.com

# WETLANDS/WATERCOURSES AND SOIL REPORT

**PROJECT TITLE AND LOCATION:** Lot 255A - Matthews Street, Bristol, CT

**NUMBERING SEQUENCE OF WETLAND BOUNDARY LINE MARKERS:**

WF#1 thru 30

Plot & locate watercourse and pond as shown on sketch map.

**SOILS SECTION:**

*Soil Legend: State Soil Number/County Soil Symbol, Soil Series Name, Taxonomic Class & Brief Description.*

**WETLAND SOILS**

12 Raypol silt loam (Aeric Endoaquepts)- This is a deep, poorly drained, friable, loamy textured soil that developed over sandy and gravelly, glacial outwash. Outwash soils occur in valleys, outwash plains and terraces. The Raypol soil was previously mapped in Hartford County as the Walpole loam.

109 Fluvaquents-Udifluvents This soil map unit consists of well drained to very poorly drained, nearly level soils that formed in very recent alluvium deposited by rivers and streams. The soils are occasionally to frequently flooded, which often results in stream scouring, lateral erosion and shifting of soil from place to place. Soil characteristics, such as texture and stoniness, are usually highly variable within short distances.

**NON-WETLAND SOILS**

21 Ninigret and Tisbury soils (Aquic Dystrudepts) – These are deep, moderately well drained, friable, coarse-loamy and loamy textured soils that developed over sandy and gravelly, glacial outwash derived from schist, gneiss and granite. Outwash soils occur in valleys, outwash plains and terraces.

34 Merrimac sandy loam (Typic Dystrudepts) – This is a deep, somewhat excessively drained, friable, sandy textured soil that developed over sandy and gravelly, glacial outwash derived from schist, gneiss and granite. Outwash soils occur in valleys, outwash plains and terraces.

38 Hinckley gravelly sandy loam (Typic Udorthents) – This is a deep, excessively drained, gravelly sandy textured soil that developed over sandy and gravelly, glacial outwash derived from schist, gneiss and granite. Hinckley soils occur in valleys, outwash plains, terraces, kames and eskers landforms.

306 Udorthents-Urban land complex This map unit consists of extensive areas where soils have been disturbed from land development along with large areas of impervious surfaces associated with streets, parking lots, buildings and other structures.

308 Udorthents, smoothed This is a well drained to moderately well drained soil area that has had two or more feet of the original soil surface altered by filling, excavation or grading activities. Udorthents, smoothed soils commonly occur on leveled land and fill landforms.

SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.
95 Silo Drive * Rocky Hill * Connecticut * 06067 * (203) 272-7837 * ssesinc@yahoo.com

## DEFINITIONS AND METHODOLOGY FOR IDENTIFICATION OF STATE REGULATED WETLANDS & WATERCOURSES

Wetlands and watercourses are regulated in the State of Connecticut by the Connecticut General Statutes, Chapter 440, sections 22a-28 to 22a-45. The Statutes are divided into the Inland Wetlands and Watercourses Act (sections 22a-36 to 22a-45) and the Tidal Wetlands Act (sections 22a-28 to 22a-35).
Inland Wetlands "means land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture" section 22a-38(15).
Watercourses "means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private which are contained within, flow through or border upon this state or any portion thereof, not regulated pursuant to sections 22a-28 to 22a-35, inclusive. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation" section.22a-38(16).
Tidal Wetlands are defined as "those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some, but not necessarily all of the following:" (includes plant list) section 22a-29(2).

## METHODOLOGY FOR IDENTIFICATION OF SOILS, WETLANDS & WATERCOURSES

1) **SOILS IDENTIFICATION**: Soils are investigated by digging test holes with a spade and auger. Test holes are typically dug to depths of between 15 and 40 inches. Based on soil features, including coloration patterns, texture and depths to restrictive layers, the soils are identified by soil series name utilizing the classification system of the National Cooperative Soil Survey. Soil series map numbers correspond with the State Soil Map Legend established by USDA, NRCS in the State of Connecticut Soil Survey. For further soils information, refer to the NRCS website for CT: www.ct.nrcs.usda.gov

2) **INLAND WETLAND DELINEATION**: Soil test holes and borings are made in selected areas in order to determine the lateral extent of Inland Wetlands. The boundaries of the Inland Wetlands are identified in the field and delineated with consecutively numbered survey tapes, unless instructed by the client to only map wetland boundaries for planning purposes. The approximate locations of the wetland boundaries are hand drawn onto a map and are included with the wetlands report.

3) **IDENTIFICATION OF WATERCOURSES**: Very often the locations of ponds, streams and rivers are already shown on a survey map. If a watercourse is absent from a survey map, then survey tapes, labeled "watercourse" or "intermittent watercourse" are placed along the channel and the approximate location of the watercourse is also sketched onto the map.

4) **TIDAL WETLANDS DELINEATION**: Tidal Wetlands are identified based on a predominance of tidal wetland plants and observation of physical markings or water laid deposits resulting from tidal action. Tidal Wetland boundaries are delineated by locating the upland limits of those plants listed in section 22a-29(2) to the extent that these plants reflect inundation by tides.

**BRISTOL SOLAR PROJECT**

**Solar Facility Decommissioning Plan**

**Introduction:**

SunJet Energy, LLC ("SunJet") proposes to build a solar photovoltaic (PV) solar facility ("Solar Facility") at 125 Hill Street and Lot 255A Matthews Street in Bristol, CT under Connecticut's Virtual Net Metering Program. The Solar Facility is planned to have a nameplate capacity of approximately up to 1.0 megawatts (MW) alternating current (AC) and be built on a 10-12-acre parcel of private land ("Facility Site").

This Decommissioning Plan ("Plan") provides an overview of activities that will occur during the decommissioning phase of a Solar Facility, including activities related to the restoration of land, the management of materials and waste, projected costs, and a decommissioning fund agreement overview.

The Solar Facility will have a maturity date of twenty (20) to thirty (30) years; however, the Solar Facility has an estimated useful lifetime of 30 years or more. This Plan assumes that the Solar Facility will be dismantled, and the Facility Site restored to a state like its pre-construction condition at the 30-year maturity date.

Decommissioning of the Solar Facility will include the disconnection of the Solar Facility from the electrical grid and the removal of all Solar Facility components, including:

- Photovoltaic (PV) modules, panel racking and supports.
- Inverter units, substation, transformers, and other electrical equipment.
- Access roads, wiring cables, communication tower, perimeter fence.
- Concrete foundations.

This decommissioning plan is based on current best management practices and procedures. This Plan may be subject to revision based on new standards and emergent best management practices at the time of decommissioning. Permits will be obtained as required and notification will be given to stakeholders prior to decommissioning.

**Decommissioning of the Solar Facility:**

At the time of decommissioning, the installed components will be removed, reused, disposed of, and recycled, where possible. The Facility Site will be restored to a state like its preconstruction condition. All removal of equipment will be done in accordance with any applicable regulations and manufacturer recommendations. All applicable permits will be acquired.

**Equipment Dismantling and Removal:**

Generally, the decommissioning of the Solar Facility proceeds in the reverse order of the installation.

1. The Solar Facility shall be disconnected from the utility power grid.
2. PV modules shall be disconnected, collected, and disposed at an approved solar module recycler or reused / resold on the market if applicable.
3. All aboveground and underground electrical interconnection and distribution cables shall be removed and disposed off-site by an approved facility.
4. Galvanized steel PV module support and racking system support posts shall be removed and disposed off-site by an approved facility.
5. Electrical and electronic devices, including transformers and inverters shall be removed and disposed off-site by an approved facility.
6. Concrete foundations shall be removed and disposed off-site by an approved facility.
7. Fencing shall be removed and will be disposed off-site by an approved facility.

**Environmental Effects:**

Decommissioning activities, particularly the removal of project components could result in environmental effects like those of the construction phase. For example, there is the potential for disturbance (erosion/sedimentation/fuel spills) to adjacent watercourses or significant natural features. Mitigation measures like those employed during the construction phase of the Solar Facility will be implemented. These will remain in place until the site is stabilized in order to mitigate erosion and silt/sediment runoff and any impacts on the significant natural features or water bodies located adjacent to the Facility Site.

Road traffic will temporarily increase due to the movement of decommissioning crews and equipment. There may be an increase in particulate matter (dust) in adjacent areas during the decommissioning phase. Decommissioning activities may lead to temporary elevated noise levels from heavy machinery and an increase in trips to the project location. Work will be undertaken during daylight hours and conform to any applicable restrictions.

**Site Restoration:**

Through the decommissioning phase, the Facility Site will be restored to a state like its preconstruction condition.

All project components (discussed in Table 1) will be removed. Rehabilitated lands may be seeded with a low-growing species such as clover to help stabilize soil conditions, enhance soil structure, and increase soil fertility.

**Managing Materials and Waste:**

During the decommissioning phase a variety of excess materials and wastes (listed in Table 1) will be generated. Most of the materials used in a Solar Facility are reusable or recyclable and some equipment may have manufacturer take-back and recycling requirements. Any remaining materials will be removed and disposed of off-site at an appropriate facility. SunJet will establish policies and procedures to maximize recycling and reuse and will work with manufacturers, local subcontractors, and waste firms to segregate material to be disposed of, recycled, or reused.

SunJet or its assigns will be responsible for the logistics of collecting and recycling the PV modules and to minimize the potential for modules to be discarded in the municipal waste stream. Currently, some manufacturers and new companies are looking for ways to recycle and/or reuse solar modules when they have reached the end of their lifespan. Due to a recent increase in the use of solar energy technology, many panels from a variety of projects will be nearing the end of their lifespan in 15 - 25 years. It is anticipated there will be more recycling options available for solar modules at that time. SunJet proposes to determine the best way of disposing of the solar modules using best management practices at the time of decommissioning.

**Table 1: Management of Excess Materials and Waste**

| Material / Waste | Means of Managing Excess Materials and Waste |
|---|---|
| PV panels | If there is no possibility for reuse, the panels will either be returned to the manufacturer for appropriate disposal or will be transported to a recycling facility where the glass, metal and semiconductor materials will be separated and recycled. |
| Metal array mounting racks and steel supports | These materials will be disposed off-site at an approved facility. |

| | |
|---|---|
| Transformers and substation components | The small amount of oil from the transformers will be removed on-site to reduce the potential for spills and will be transported to an approved facility for disposal. The substation transformer and step-up transformers in the inverter units will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices. |
| Inverters, fans, fixtures | The metal components of the inverters, fans and fixtures will be disposed of or recycled, where possible. Remaining components will be Disposed of in accordance with the standards of the day. |
| Gravel (or other granular) | It is possible that the municipality may accept uncontaminated material without processing for use on local roads, however, for the purpose of this report it is assumed that the material will be removed from the project location by truck to a location where the aggregate can be processed for salvage. It will then be reused as fill for construction. It is not expected that any such material will be contaminated. |
| Geotextile fabric | It is assumed that during excavation of the aggregate, a large portion of the geotextile will be "picked up" and sorted out of the aggregate at the aggregate reprocessing site. Geotextile fabric that is remaining or large pieces that can be readily removed from the excavated aggregate will be disposed of off-site at an approved disposal facility. |
| Concrete inverter/transformer Foundations | Concrete foundations will be broken down and transported by certified and licensed contractor to a recycling or approved disposal facility. |
| Cables and wiring | The electrical line that connects the substation to the point of common coupling will be disconnected and disposed of at an approved facility. Support poles, if made of untreated wood, will be chipped for reuse. Associated electronic equipment (isolation switches, fuses, metering) will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices. |
| Fencing | Fencing will be removed and recycled at a metal recycling facility. |
| Debris | Any remaining debris on the site will be separated into recyclables/residual wastes and will be transported from the site and managed as appropriate. |

**Decommissioning Notification:**

Decommissioning activities may require the notification of stakeholders given the nature of the works at the Facility Site. The local municipality will be notified prior to commencement of any decommissioning activities. Six months prior to decommissioning, SunJet will update their list of stakeholders and notify appropriate municipalities of decommissioning activities. Federal, county, and local authorities will be notified as needed to discuss the potential approvals required to engage in decommissioning activities.

**Approvals:**

Well-planned and well-managed renewable energy facilities are not expected to pose environmental risks at the time of decommissioning. Decommissioning of a Solar Facility will follow standards of the day. SunJet will ensure that any required permits are obtained prior to decommissioning.

This Decommissioning Report will be updated as necessary in the future to ensure that changes in technology and site restoration methods are taken into consideration.

**Costs of Decommissioning:**

The costs below are the current estimated costs to decommission a typical 2 MWac Solar Facility, based on guidance from NYSERDA and estimates from the Massachusetts solar market, a mature solar market with experience decommissioning projects. The salvage values of valuable recyclable materials (aluminum, steel, copper, etc.) are not factored into the below costs. The scrap value will be determined on current market rates at the time of salvage. SunJet assumes that the estimated cost estimates can be prorated down to reflect an approximately up to 1.0 MWac Solar Facility.

| Tasks | Estimated Cost ($) |
|---|---|
| **Remove Panels** | $2,450 |
| **Remove Rack Wiring** | $2,459 |
| **Dismantle Racks** | $12,350 |
| **Remove and Load Electrical Equipment** | $1,850 |
| **Break up Concrete Pads** | $1,500 |

| | |
|---|---|
| **Remove Racks** | $7,800 |
| **Remove Cable** | $6,500 |
| **Remove Ground Screws and Power Poles** | $13,850 |
| **Remove Fence** | $4,950 |
| **Grading** | $4,000 |
| **Seed Disturbed Areas** | $250 |
| **Truck to Recycling Center** | $2,250 |
| **Current Total** | **$60,200** |
| **Total After 20 Years (2.5% inflation rate)** | **$98,300** |

*NY PVTN Decommissioning Fact Sheet.pdf*

**Decommissioning Fund**

SunJet may create a decommissioning fund to guarantee that monies are available to perform the facility decommissioning. The funds would be held in a 3rd party escrow account, and they will remain available to any party performing the decommissioning such as a municipality or a landowner.