



**Decommissioning and Restoration Plan
Petition No. 1347A**

**Prepared for
Connecticut Siting Council**

July 30, 2021

1.0 Decommissioning and Restoration Plan

1.1 Project Decommissioning

This decommissioning plan has been developed to meet the standards set forth by the Connecticut Siting Council in its November 9, 2020 Decision and Order in Petition No. 1347A.

At the end of the Project life, decommissioning will include disassembly and removal of all above-ground structures, removal of subsurface structures to a minimum depth of 24 inches below grade, and re-grading and restoration of disturbed areas. Where reasonably required, restoration will include regrading, seeding, and mulching to establish vegetation and prevent soil loss and erosion. Racking posts pulled from the ground are expected to create very minimal ground disturbance. Any disturbed areas will be seeded with the same seed mix used across the site during the life of the Project or, if landowner prefers, another acceptable mix will be selected.

At the time of decommissioning, the project owner will submit to the Town of Waterford and the Siting Council a request and plan for continued beneficial use of any components to be left on site, including gravel roads, landscaping and/or visual screening and stormwater buffers. If this request is denied, such structures/features shall be removed from the site.

Under the proposed decommissioning plan, the project owner shall be responsible for all decommissioning costs. Any additional permits or approvals required for decommissioning, removal, and legal disposal of Project components will be obtained before decommissioning activities begin. All activities will be conducted in accordance with all permits and applicable rules and regulations. Disposal of all solid and, if applicable, hazardous waste will be conducted in accordance with local, state, and federal waste disposal regulations.

1.2 Facility Materials/Equipment

PV facilities are constructed using the same basic materials and methods of installation common to their application. Materials include:

Metals: Steel from pier foundations, racking, conduits, electrical enclosures, fencing; aluminum from racking, module frames, electrical wire, and transformers; stainless steel from fasteners, electrical enclosures, and racking; copper from electrical wire, transformers, and inverters.

Concrete: Equipment pads and footings.

PV modules: PV Modules are typically constructed of glass front sheets (some use glass back sheets as well), plastic back sheets and laminates, semiconductor rigid silicon cells, internal electrical conductors (aluminum or copper), silver solder, plus a variety of micro materials. The semiconductor PV cell materials represent a very small part of a PV module's weight, between 1 and 2%. As manufacturers pursue lower-cost modules, thinner layers of semiconductor materials are used which reduces this percentage. The most commonly used semiconductor material for the construction of PV modules is silicon. Glass, aluminum, and copper are easily recyclable materials, and silicon can be recycled by specialty electronics recyclers.

Glass: Most PV modules are approximately 80% glass by weight.

Plastics: A limited quantity of plastic materials are used in PV systems due to a system's continuous exposure to the elements and long operational lifetime. Plastics typically are found in PV facilities as wire insulation, electrical enclosures, control and monitoring equipment, and inverter components.

1.3 Sequence of Decommissioning

The following sequence for the removal of the components will be used:

PV Site:

- Disconnect PV facility from the utility power grid;
- Disconnect all aboveground wirings, cables and electrical interconnections and recycle offsite by an approved recycling facility;
- Remove concrete foundations. Electric components and their foundations will be removed and recycled off-site by a concrete recycler;
- Remove PV modules and transport to recycling facilities for recycling and material reuse;
- Remove the perimeter fence and recycle off-site by an approved metal recycler;
- Remove all waste.

Inverters/Transformers:

- Disconnect all electrical equipment;
- Remove all on site inverters, transformers, meters, fans, and other electrical components and recycle off-site by an approved recycler;
- Remove all waste.

Access Road:

- The access road built on the project, and associated drainage infrastructure will remain as a means to access the site in the future, if landowners choose to do so and are granted permission from the Siting Council and Town.

Below Ground Structure Decommissioning:

- Disconnect and remove all underground cables and transmission lines to a depth of 24" below grade and recycle off-site by an approved recycling facility;
- Removal of steel rack foundations.

Site Restoration:

- Seeding and mulching;
- Minor regrading.