

**County Road 10 Solar Project**  
**Aura Solar Power USA, LLC**

Project Decommissioning Plan  
February, 2021

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## 1 Introduction

Aura Solar Power USA, LLC ("Aura") proposes to build a ground-mounted photovoltaic (PV) solar facility ("Solar Facility") in the Town of Canandaigua, referred to as the "County Road 10 Solar Project." The Solar Facility is planned to connect to the local electrical grid and have a nameplate capacity of (Project MW) megawatts (MW) alternating current (AC). The Solar Facility is proposed to occupy approximately (Project Size) acres on Tax Parcel: (Project Tax ID), Town of Canandaigua, Monroe County, NY (the "Facility Site").

This Plan assumes that the Solar Facility will have a useful life and a maturity date of thirty-five (35) years. Upon decommissioning, the Solar Facility will be dismantled, and the Facility Site restored to a state similar to its pre-construction condition. The Plan also covers the case of the abandonment of a Solar Facility, for any reason, prior to the project's 35-year maturity date. It is designed to provide a level of financial protection for the Town of Canandaigua.

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

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, transformers, and other electrical equipment;
- Access roads\*, wiring cables, perimeter fence; and,
- Concrete foundations.

This Decommissioning Plan is based on current best management practices and procedures and has been prepared in compliance with the most recent guidance from New York State Department of Agriculture and Markets (NYSDAM) "Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands" (Appendix 4). This Plan may be subject to revision based on new standards and emergent best management practices at the time of decommissioning.

## 2 The Proponent

Aura or the future owner-operator will manage and coordinate decommissioning process. Aura or the future owner-operator will obtain all necessary regulatory approvals that vary depending on the jurisdiction, project capacity, and site location. Aura or the future owner-operator will be committed to the safety, health, and welfare of the hosting community.

The conditions and obligations of this Decommissioning Plan shall be bounded upon the Aura, its heirs, executors, administrators, successors or assigns.

Contact information for the proponent is as follows:

<b>Company:</b>	Aura Solar Power USA, LLC
<b>Contact:</b>	(Client Contact)
<b>Address:</b>	(Client Address)
<b>Telephone:</b>	(Client Phone Number)
<b>Email:</b>	(Client Email)

## 2.1 Project Information

<b>Address:</b>	(Site Address) (Site Coordinates))
<b>Tax ID:</b>	(Project Tax ID)
<b>Project Size:</b>	Solar Facility of (Project MW) MW AC
<b>Property Owner:</b>	(Site Owner)
<b>Site Agreement:</b>	Signed option agreement to lease or purchase the property

## 3 Decommissioning of the Solar Facility

The project may be decommissioned under the following conditions:

1. Aura or any entity that may own or operate the facility in the future (the "future owner-operator") decides to retire the Solar Facility;
2. Commercial operation of the Solar Facility has not commenced within eighteen (18) months of the project's construction completion; or
3. The Solar Facility ceases to be operational for more than twelve (12) months outside of routine repairs or causes beyond the reasonable control of Aura or the future owner operator.

Aura will provide a financial guarantee to the Town of Canandaigua prior to undertaking construction in the form of a surety bond to guarantee that money is available to perform the Solar Facility decommissioning. Although Aura intends to perform the decommissioning, unforeseen circumstances such as Aura selling the project to another entity or Aura going out of business are possible. The surety bond will be renewed annually and will remain available to any party performing the decommissioning, such as a municipality or a landowner.

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 similar to its preconstruction condition, as further described in the Site Restoration sub-section below. All removal of equipment will be done in accordance with any applicable regulations and manufacturer recommendations.

All applicable permits will be acquired, and compliance with the State Environmental Quality Review (SEQR) requirements will be achieved.

In the unlikely scenario that Aura or the future owner-operator cannot execute the decommissioning, the Town of Canandaigua may commence the decommissioning through the surety bond established to cover the expenses.

### 3.1 Equipment Dismantling and Removal

Generally, the sequence of 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. Although the PV modules will not be cutting edge technology at the time of decommissioning, they are estimated to still produce 80% of the original electricity output at year 25 and add value for many years.
- 3 All aboveground electrical interconnection and distribution cables and poles shall be removed and disposed off-site at an approved facility.

- 4 In accordance with NYSDAM guidelines, all underground direct buried electrical conduits and conductors with less than 48-inches of cover shall be removed by means causing the least amount of disturbance possible.
- 5 Underground electric conduits and direct buried conductors with 48-inches or more of soil cover shall be abandoned in place. In accordance with NYSDAM guidelines, abandoned conduit must be sealed or capped in accordance with the best practices at the time of decommissioning to avoid the potential to direct subsurface drainage onto neighboring land uses.
- 6 Galvanized steel PV module support and racking system support posts shall be removed and disposed off-site or recycled/salvaged at an approved facility.
- 7 Electrical and electronic devices, including transformers, inverters, switchgear, and support structures shall be removed and disposed off-site at an approved facility. Any components not required for return to the power authority will be disposed off-site or recycled/salvaged at an approved facility.
- 8 Concrete foundations shall be removed and disposed off-site at an approved facility. In accordance with NYSDAM guidelines, access roads in agricultural areas shall be removed, unless otherwise specified by the landowner. If access roads are to be removed, the areas should be regraded with topsoil from recorded excess native topsoil disposal areas. If suitable topsoil from these areas is unavailable, imported topsoil may be used as long as it is free of invasive species and consistent with topsoil quality on the affected site.
- 9 Fencing and gates shall be removed and will be disposed off-site at an approved facility.

### **3.2 Environmental Effects**

Decommissioning activities, particularly the removal of project components, could result in environmental effects like those of the construction phase. There is the potential for ground disturbance, erosion/sedimentation, soil compaction, spills, and related impacts to adjacent watercourses or significant natural features. Construction best management practices and mitigation measures, similar to those employed during the construction phase of the Solar Facility, will be implemented. These will remain in place until the site is stabilized and the ground cover has been reestablished in order to mitigate erosion, silt/sediment runoff and any impacts on significant natural features or water bodies located adjacent to the Project 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 vehicle trips to the project location. Work will be undertaken during daylight hours and will conform to any applicable restrictions. Recycling of structural components will be maximized to the extent possible to reduce solid waste disposal.

### **3.3 Site Restoration**

During the decommissioning phase, all project components (Appendix 1) will be removed, and the Facility Site will be restored to a state similar to its pre-construction condition. The site is currently considered vacant agricultural land, so the goal of site restoration for this Facility Site is as a vacant agricultural field. The pre-construction condition has been documented in the photos in Appendix 2. At the time of decommissioning, Aura or the future owner-operator will coordinate with the landowner, the Soil and Water Conservation District, the Department of Agriculture and Markets, and will follow the environmental monitoring and restoration requirements of the NYSDAM guidelines (see Appendix 4).

Additionally, if access roads in agricultural areas are removed in accordance with landowner wishes, topsoil will be returned from recorded excess native topsoil disposal areas, if present, or topsoil free of invasive species will be imported consistent with the quality of the topsoil on the affected site.

Rehabilitated lands shall be re-seeded to help stabilize soil conditions, enhance soil structure, and increase soil fertility.

### **3.4 Managing Materials and Waste**

Through the decommissioning phase, a variety of excess materials and wastes will be generated (Appendix 1). 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. Aura or the future owner-operator 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.

Aura or the future owner-operator 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. It is anticipated there will be more recycling options available for solar modules at the end of the project lifespan. Aura or the future owner-operator will determine the best way of disposing of the solar modules using best management practices at the time of decommissioning. Aura or the future owner-operator will coordinate with the municipality if the disposal of any project component at the municipal waste facility is necessary.

### **3.5 Decommissioning During Construction or Abandonment Before Maturity**

In case of abandonment of the Solar Facility during construction or before the Expected Decommissioning Date, the same decommissioning procedures used for decommissioning after ceasing operation will be undertaken and the same decommissioning and restoration program will be completed, in as far as construction proceeded before abandonment. The Solar Facility will be dismantled, materials removed and recycled/disposed, the soil that was removed will be graded and the site restored to a state similar to its preconstruction condition.

### **3.6 Decommissioning Notification**

Decommissioning activities may require the notification of stakeholders given the nature of the work at the Facility Site. The Town of Canandaigua will be notified prior to commencement of any decommissioning activities. In accordance with NYSDAM guidelines, Aura or the future owner-operator will also notify NYSDAM prior to decommissioning.

Notification activities will be initiated six months prior to decommissioning. At this time, Aura or the future owner-operator will update their list of stakeholders and notify appropriate jurisdictions and overseeing agencies of decommissioning activities. Federal, county, and local authorities, including the utility company, will be notified as needed to discuss the potential approvals required to engage in decommissioning activities.

### **3.7 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 the regulatory standards

of the day. Aura or the future owner-operator will ensure that any required permits are obtained prior to decommissioning. This Decommissioning Report will be updated as necessary in the future, but not less than every five years, to ensure that changes in technology and site restoration methods are taken into consideration.

#### **4 Costs of Decommissioning & Decommissioning Bond**

The current cost to decommission the (Project MW) MW Solar Facility has been estimated on behalf of Aura by their engineering consultants, following industry standards and using guidance from NYSERDA, at \$227,500 (see Appendix 3). The estimate considers the location of the site within a NYS Agricultural District, including compliance with the NYS Department of Agriculture & Markets Guidelines dated 10/18/19 (see Appendix 4). The cost estimate is based upon the best available information and engineering and demolition experience with other types of construction projects.

In addition, the salvage values of valuable recyclable materials (aluminum, steel, copper, etc.) have *not* been factored into the decommissioning cost estimate, and the scrap value will be determined on current market rates at the time of salvage.

At the start of construction, Aura will post a surety bond in the amount of approximately \$404,005 which is the total amount at the project's 30-year maturity (see Appendix 3).

#### **5 Estimated Timeline**

Aura has prepared a timeline for the major actions to be undertaken during decommissioning. As it is difficult to know what specific approvals and protocols will be in place when decommissioning begins, the timing of these actions is estimated based on best available information.

- Notifications to Stakeholders: Months 0 to 6 (Town notified 6 months prior to decommissioning activities)
- Permitting and environmental review: Months 2 to 6
- Physical Decommissioning and Removal of Equipment: Months 6 to 9
- Restoration: Months 6 to 15 (depending on timing of growing season)

## **APPENDIX A**

### Management of Excess Materials and Waste



Materials/ Waste	Means of Managing Excess Materials and Waste
PV Modules	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 racking	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 onsite to reduce the potential for spills and will be transported to an approved facility for disposal. The substation transformer, step-up transformers and 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, switchgear and 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 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/ BESS/ 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	<p>The aboveground 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.</p> <p>Underground conduits, conductors, and other facilities originally installed at less than 48" in depth will be removed and recycled or safely disposed of in accordance with current standards and best practices.</p>
Fencing	Fencing will be removed and recycled at a metal recycling facility.
Utility Poles	Customer-owned utility poles will be dismantled and transported to a licensed treated wood recycling facility to be assessed for reuse for operational use or for secondary use in construction projects.
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.

## **APPENDIX B**

### Photo Documentation of Pre-Construction Conditions

## **APPENDIX C**

### Estimated Decommissioning Costs

## County Road 10 Solar Farm

Description	Qty	Unit	Unit Price	Total
Remove Rack Wiring	5	per MW	\$1,500	<b>\$7,500</b>
Remove Panels	5	per MW	\$2,000	<b>\$10,000</b>
Dismantle Racks	5	per MW	\$5,000	<b>\$25,000</b>
Remove Electrical Equipment	5	per MW	\$1,500	<b>\$7,500</b>
Remove Utility Poles & Wires	1	Lump Sum	\$5,000	<b>\$5,000</b>
Breakup and Remove Concreate Pads	2	per Pad	\$2,500	<b>\$5,000</b>
Remove Racks	5	per MW	\$3,000	<b>\$15,000</b>
Remove Cables	5	per MW	\$2,500	<b>\$12,500</b>
Remove Posts or Ground Screws	5	per MW	\$6,000	<b>\$30,000</b>
Remove Wire Mesh Fence	6,000	per LF	\$3	<b>\$18,000</b>
Remove Gravel Road	37,000	per SF	\$0.75	<b>\$27,750</b>
Earthwork & Grading to Restore to Original Contours	5000	per CY	\$2.00	<b>\$10,000</b>
Seed Disturbed Areas	135,000	per SF	\$0.25	<b>\$33,750</b>
Disposal and Transportation to Recycling Center	1	Lump Sum	\$8,000	<b>\$8,000</b>
E&S Controls & Environmental Monitoring	1	Lump Sum	\$7,500	<b>\$7,500</b>
Contractor Mobilization & Demobilization	1	Lump Sum	\$5,000	<b>\$5,000</b>
Decommissioning Cost – Current Total				<b>\$227,500</b>
Decommissioning Cost After 30 Years (2% Inflation Rate)				<b>\$404,005</b>

Decommissioning Bond Value with  
Escalation Rate of 2%

Year	Amount
1	\$227,500
2	\$232,050
3	\$236,691
4	\$241,425
5	\$246,253
6	\$251,178
7	\$256,202
8	\$261,326
9	\$266,553
10	\$271,884
11	\$277,321
12	\$282,868
13	\$288,525
14	\$294,296
15	\$300,181
16	\$306,185
17	\$312,309
18	\$318,555
19	\$324,926
20	\$331,425
21	\$338,053
22	\$344,814
23	\$351,710
24	\$358,745
25	\$365,919
26	\$373,238
27	\$380,703
28	\$388,317
29	\$396,083
30	\$404,005

## **APPENDIX D**

### NYS Department of Agriculture and Markets Guidelines