

Wingdale Solar

Decommissioning Plan

Prepared for:

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1. Project Summary

The Applicant, Wingdale PV, LLC, is proposing to develop a 15.99-acre solar project ("project" or "project area") on a 48.28-acre property located on at 6435 Route 55 in the Hamlet of Wingdale, Town of Dover, Dutchess County, New York (Parcel Number: 132600-7160-00-055290). The Property is bounded by Route 55 to the southeast, Route 22 to the west, lands of the Dover School District and United Methodist Church to the south, and residential lots to the north and east.

Wingdale Solar is a 4.279 MWac Ground Mounted Solar Energy System that consists of solar racks, perimeter fencing and stormwater management practices. Access to the site is provided by a permeable driveway. The anticipated viable life of the solar energy system is 35 years, in accordance with industry standards.

2. Decommissioning

Decommissioning will require engaging a trained contractor for this work and obtaining the required permits. The site activity impacts will be similar to the construction phase, but in reverse sequence. Decommissioning of electrical devices, equipment and wiring/cabling will be conducted in accordance with local, municipal, state, and federal standards and guidelines. Electrical decommissioning will include obtaining the required permits and following procedures before de- energizing, isolating, and disconnecting electrical devices, equipment and wiring/cabling.

Decommissioning will begin within 1 month after reaching the lifespan of the project, 35 years. If the project lifespan is reached during the winter season, decommissioning will begin in the subsequent spring. Duration of decommissioning is expected to last approximately 3 months.

The procedures will include the following:

- The creation of temporary work areas. To provide sufficient area for the laydown of the disassembled panels and racking and loading onto trucks, gravel will be placed on a clear, level area that is accessible.
- Equipment will include, at a minimum:
 - The use of cranes to remove the panels, racking, inverters, and transformers.
 - The use of trucks for removal of panels, racking, inverters, and transformers.
- Driveways will be removed unless the property owners want them left in place. The gravel will be removed and replaced with clean soil for reuse by the landowner for agricultural or other purposes.

Erosion and sediment control measures, similar to those used during construction will be implemented and maintained by the trained contractor.

2.1. Dismantling PV Modules, Racks and Supports

Modules will be disconnected, removed from the racks, packaged and transported to a designated location for resale, recycling or disposal. If the modules are not to be reused in a different location, the glass and silicon will be reclaimed,



and the aluminum frames will be recycled. Any disposal or recycling will be done in accordance with local by-laws and requirements. The connecting underground cables and the junction boxes will be deenergized, disconnected and removed.

The steel lattice racks supporting the modules will be unbolted and disassembled using standard hand tools, possibly assisted by a small portable crane. The vertical steel posts supporting the racks and steel support posts (driven or screwed) will be completely removed by mechanical equipment and transported off-site for salvage (driven piles) or reuse (screw piles).

Any demolition debris that is not salvageable will be transported by truck to an approved offsite disposal area. Other salvageable equipment and/or material will be removed from the site for resale, scrap value or disposal depending on market conditions.

2.2. Dismantling Electrical Equipment and Foundations

Decommissioning of electrical devices, equipment, and wiring/cabling will be in accordance with local, municipal, state, and federal agency standards and guidelines. Electrical decommissioning will include obtaining the required permits before de-energizing, and disconnecting electrical devices, equipment and wiring/cabling.

Decommissioning will require dismantling and removal of the electrical equipment, including inverters, transformers, underground cables and overhead lines, and the prefabricated inverter enclosures. The equipment will be disconnected and transported off-site by truck. The concrete foundations and support pads will be broken up by mechanical equipment (backhoe-hydraulic hammer/shovel, jackhammer), loaded onto dump trucks and removed from the site; and smaller pre-cast concrete support pads will be removed intact by cranes and loaded onto trucks for reuse or be broken up and hauled away by dump trucks.

Prior to removal of the transformers, the oil will be pumped into a separate industry approved disposal container and sealed to prevent any spill during storage and/or transportation. Equipment and material may be salvaged for resale or scrap value depending on the market conditions.

2.3. Dismantling Driveways

The gravel may be removed or left in place at the property owner's request. If removed, the gravel will be placed in dump trucks to haul the aggregate to a recycling facility or approved disposal facility. The underlying subsoil, if exhibiting significant compaction will then be aerated using a tractor with disk attachment to restore the soil structure and aerate the soil. Clean topsoil would be replaced over this area, from where it may have been temporarily stored elsewhere on- site by dump truck, to match the surrounding grade. Depending upon the time of



year and the planned use of the land, the area will be returned to its pre-construction condition. If the driveway remains, there will be a written agreement presented to the Town.

2.4. Dismantling Screening

The screening may be removed or left in place at the property owner's request. If removed, the trees and brush will be placed in trucks to haul the plants to a different facility or approved disposal facility. The underlying subsoil will then be aerated using a tractor with disk attachment to restore the soil structure and aerate the soil. Clean topsoil would be replaced over this area, from where it may have been temporarily stored elsewhere on- site by dump truck, to match the surrounding grade. Depending upon the time of year and the planned use of the land, the area will be returned to its pre-construction condition. If the driveway remains, there will be a written agreement presented to the Town.

2.5. Other Components

Unless retained for other purposes, and at the request of the property owners, removal of other facility components from the site will be completed, including but not limited to surface drains, culverts, and fencing. Anything deemed usable shall be recovered and reused. Other remaining components will be considered as waste and managed according to federal, state, and municipal requirements. For safety and security, the security fence will be the final component dismantled and removed from the site.

2.6. Department of Agriculture and Markets

Projects containing agricultural land and projects within agricultural districts have further removal requirements. The NYS Department of Agriculture and Markets requires that above ground structures be removed if the use of the solar arrays is discontinued. Areas previously used for agricultural production are to be restored, according to recommendations by:

- the landowner
- Soil and Water Conservation District
- New York State Department of Agriculture and Markets Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands

Concrete piers, footers or other supports must be removed to a depth of 48-inches below the soil surface. Underground electric lines will be removed. Access roads in agricultural areas must be removed, unless otherwise specified by the landowner.

2.7. Permits and Approvals

Decommissioning activities are expected to disturb more than one or more acre of land. Therefore, coverage under the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination

System (SPDES) General Permit for Stormwater Discharges from Construction Activity (General Permit) latest revision will be required prior to commencement of decommissioning. Erosion and sediment control inspections will be dictated by the SPDES permit requirement. It is anticipated that the decommissioning will require a Building or Demolition permit obtained from the Town of Eden.

3. Erosion and Sediment Control Plan

3.1. Erosion and Sediment Control Measures

Temporary erosion and sediment control measures to be used during decommissioning construction generally include the following:

- Stabilized construction access.
- Dust control.
- Temporary soil stockpiles.
- Silt fencing.
- Temporary seeding.

Once decommissioning is completed, disturbed areas shall be final seeded within 14 days after completion of the land disturbing activities. Final site stabilization is achieved when soil- disturbing activities have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on the disturbed unpaved areas and areas not covered by permanent structures.

3.2. Pollution Prevention Controls

Good housekeeping practices are designed to maintain a clean and orderly work environment. Good housekeeping measures shall be maintained throughout the construction process by those parties involved with the direct care and development of the site. The following measures shall be implemented to control the possible exposure of harmful substances and materials to stormwater runoff:

1. Soil stockpile locations shall be located away from storm drainage, water bodies or watercourses and surrounded with adequate erosion and sediment control measures. Soil stockpile locations shall be exposed no longer than 14 days before seeding.
2. Equipment maintenance areas shall be protected from stormwater flows and shall be supplied with appropriate waste receptacles for spent chemicals, solvents, oils, greases, gasoline, and any pollutants that might contaminate the surrounding habitat or water supply. Equipment wash-down zones shall be within areas draining to sediment control devices.
3. The use of detergents for large-scale (e.g., vehicles, buildings, pavement surfaces) washing is prohibited.
4. Material storage locations and facilities (e.g., covered storage areas, storage sheds) shall be on-site and shall be stored according to the manufacturer's standards in a dedicated staging area. Chemicals, paints, solvents, fertilizers, and other toxic material shall be stored in waterproof containers. Runoff containing



such materials shall be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

5. Hazardous spills shall be immediately contained to prevent pollutants from entering the surrounding habitat or water supply. Spill Kits shall be provided on site and shall be displayed in a prominent location for ease of access and use. Spills greater than 5 gallons shall be reported to the NYSDEC Response Unit at 1-800-457-7362. In addition, a record of the incidents or notifications shall be documented and attached to the SWPPP.
6. Portable sanitary waste facilities shall be provided on site for workers and shall be properly maintained.
7. Dumpsters or debris containers shall be on site and shall be of adequate size to manage respective materials. Regular collection and disposal of wastes must occur as required.
8. Non-stormwater components of site discharge shall be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or approved private well. Water used for construction that does not originate from an approved public supply must not discharge from the site.
9. Discharges from dewatering activities, including discharges from dewatering trenches and excavations, shall be managed by appropriate control measures.

3.3. Inspections and Maintenance

3.3.1. Trained Contractor Requirements

The trained contractor must inspect the erosion and sediment control practices and pollution- prevention measures to verify that they are being maintained in effective operating condition. The inspections will be performed daily in the active work area. If deficiencies are identified, the contractor will begin implementing corrective actions within one business day and must complete the corrective actions by the end of the day.

3.3.2. Qualified Inspector Requirements

The owner/operator must have a Qualified Inspector conduct site inspections to verify the stability and effectiveness of protective measures and practices employed during construction. The site inspections will be conducted at least once every seven days.

Inspection reports must identify and document the maintenance of the erosion and sediment control measures. If deficiencies are identified, the contractor will begin implementing corrective actions within one business day and must complete the corrective actions by the end of the day.

4. Waste Disposal

As discussed above, the waste generated by the installation, operation and decommissioning of the Project is minimal, and there are no toxic residues. Any wastes generated will be disposed of according to standards of the day with the emphasis of recycling materials whenever possible.

5. Restoration of Land

5.1. General

Projects containing agricultural land and projects within agricultural districts will be restored to agricultural use by:

- Site cleanup.
- Any excavation and/or trenching caused by the removal of building or equipment foundations, rack supports, and underground electrical cables will be backfilled with the appropriate material and leveled to match the ground surface.
- Driveways will be removed completely, filled with suitable sub-grade material and leveled.
- Topsoil will be placed on these areas to restore agricultural capability. Topsoil will be restored using recorded project excess native topsoil disposal areas, if present, or imported topsoil free of invasive species that is consistent with the quality of topsoil on the affected site.
- Any compacted ground will be tilled, mixed with suitable sub-grade materials and leveled.

5.2. Department of Agriculture and Markets

The NYS Department of Agriculture and Markets has the following restoration requirements:

- All agricultural areas temporarily disturbed by construction must be decompacted to a depth of 18 inches with a deep ripper or heavy-duty chisel plow. Soil compaction results must be no more than 250 pounds per square inch (PSI) as measured with a soil penetrometer. In areas where the topsoil was stripped, soil decompaction must be conducted prior to topsoil replacement. Following decompaction, remove all rocks 4 inches and larger in size, from the surface of the subsoil prior to replacement of the topsoil. Replace the topsoil to original depth and reestablish original contours where possible.
- Remove all rocks 4 inches and larger from the surface of the topsoil. Subsoil decompaction and topsoil replacement must be avoided after October 1. All parties involved must be cognizant that areas restored after October 1st may not obtain sufficient growth to prevent erosion over the winter months. If areas are to be restored after October 1st, necessary provision must be made to restore and/or reseed any eroded or poorly germinated areas in the springtime, to establish proper growth.
- Regrade all access roads to allow for farm equipment crossing and to restore original surface drainage patterns, or other drainage pattern incorporated into the design.
- Seed all restored agricultural areas with the seed mix specified by the landowner, to maintain consistency with the surrounding areas.
- Repair all surface or subsurface drainage structures damaged during construction as close to preconstruction conditions as possible, unless said structures are to be removed as part of the project design. Correct any surface or subsurface drainage problems resulting from construction of the solar energy project with the appropriate mitigation as determined by the Environmental Monitor, Soil and Water Conservation District, and the Landowner.



- On affected farmland, postpone any restoration practices until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration must not be conducted while soils are in a wet or plastic state of consistency. Stockpiled topsoil must not be regraded, and subsoil must not be decompacted until plasticity, as determined by the Atterberg field test, is adequately reduced. No project restoration activities shall occur in agricultural fields between the months of October through May unless favorable soil moisture conditions exist.
- Following restoration, remove all construction debris from the site.

6. Emergency Response and Communications Plans

Prior to initiating any decommissioning activities, Wingdale PV, LLC will notify the local authorities, the public, and relevant government agencies of their intent to decommission the Project. Copies of a detailed emergency response plan, developed in conjunction with the local emergency services, will be distributed to the local municipality prior to the commencement of operations. A plan specific to the Project will be developed during the construction phase of this project and will be applicable to both the operations and decommissioning phases of the Project.

During decommissioning, Wingdale PV, LLC will coordinate with the local authority, the public and others as required to provide them with information about the ongoing activities. Besides regular direct/indirect communication, a sign will be posted at the gate of the facility which will include Wingdale PV's contact information (telephone number, e-mail and mailing address) should the public have any questions, inquiries or complaints. Inquiries will be directed to Wingdale PV's primary contact person who will respond to the inquiry accordingly. Inquiries will be logged electronically with the following information: date of question, inquiry or complaint, name, phone number, email address of the individual, response, date of response, and any follow-up issues.

X

Jonathan Rappe
Sole signatory to Wingdale PV, LLC

PROJECT NO.	607161	SHEET	1	OF	5
SUBJECT	Decommissioning Estimate				
CALC. BY	SWK	DATE	11/4/2024		
CKD. BY	WGA / SAR	DATE	11/4/2024		

This Decommissioning Estimate has been prepared in an attempt to predict the cost associated with removal of the proposed solar facility. The primary cost of decommissioning is the labor to dismantle and load as the cost of trucking and equipment. All material will be removed from the site, including any concrete foundations, which will be broken up at the site and hauled to the nearest transfer station.

The following values were used in this Decommissioning Estimate

SYSTEM SPECIFICATIONS

Number of Modules	6,762	ea
Number of Racks	137	ea
Number of Foundations	411	ea
Number of Inverters	14	ea
Number of Transformers	2	ea
Number of Switchboards	0	ea
Electrical Wiring Length	1,813	ft
Length of Perimeter Fence	5,307	ft
Number of Power Poles	5	ea
Access Rd Material Volume	982	CY
Level Spreader Material Volume	6,484	CY
Total Disturbed Area	708,143	SF
Number of Trees to be Removed	0	ea

EQUIPMENT & MATERIAL REMOVAL RATES

Module Removal Rate	2	min/module
Module Loading Rate	2	min/module
Rack Wiring Rem. Rate	0.5	min/module
Rack Wiring Loading Rate	0.5	min/module
Racking Dismantling Rate	15	min/rack
Rack Loading Rate	5	min/rack
Foundation Removal	2	min/each
Foundation Loading Rate	5	min/each
Inverter Removal Rate	0.5	units/hr
Transformer Removal Rate	0.5	units/hr
Switchboard Removal Rate	1	units/hr
Elect. Wiring Removal Rate	0.5	min/LF
Power Pole Removal	6	hr/each
Rough Grading	1	Days
Fine Grading	1	Days
Tree Loading Rate	10	trees/hr
Fence Removal Rate	0.5	min/LF
Total Truckloads Required	248.9	ea
Round-Trip Dist. To Trans. Sta.	4	mile
Round-Trip Time to Trans. Sta.	0.25	hr

LABOR AND EQUIPMENT COSTS

Laborer Rate	\$ 35.00	\$/hr
Bobcat Cost	\$ 125.00	\$/hr
Front End Loader Cost	\$ 1,000.00	\$/Day
Excavator Cost	\$ 1,000.00	\$/Day
Trucking Cost	\$ 130.00	\$/hr
Backhoe Cost	\$ 1,960.00	\$/Day
Grader Cost	\$ 1,800.00	\$/Day
Gravel Excavation Cost	\$ 11.00	\$/CY
Soil Import Cost	\$ 35.00	\$/CY
Seeding Cost	\$ 0.055	\$/SF
Fuel Cost	\$ 0.67	\$/mile
Tree Removal Laborer Cost	\$ 100.00	\$/Tree
Tree Removal Equipment Cost	\$ 120.00	\$/Tree

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Labor, Material, and Equipment Costs

1 REMOVE MODULES

The solar modules are fastened to racking with clamps. They slide in a track. A laborer needs to unclamp the module and reach over and slide the module out of the track.

$$Cost = \frac{\text{Number of Modules} \times \text{Module Removal Rate} \times \text{Laborer Rate}}{60 \text{ min/hr}}$$

Total = \$ 7,889.00

2 LOAD MODULES

The modules are loaded onto a front end loader by a laborer and transported to a truck which hauls the modules off-site.

$$\text{Equipment Days} = \frac{(\text{Number of Modules} \times \text{Module Loading Rate})}{60 \text{ min/hr}} / 8 \text{ hrs/day} \quad \text{Equipment Days} = 29$$

$$Cost = \frac{(\text{Number of Modules} \times \text{Module Loading Rate} \times \text{Laborer Rate})}{60 \text{ min/hr}} + (\text{Equipment Days} \times \text{Front Loader Cost})$$

Total = \$ 36,889.00

3 REMOVE RACK WIRING

The modules are plugged together in the same manner as most electronics. The string wires are in a tray. A laborer only needs to unplug the module, reach into the array and remove the strands of wire.

$$Cost = \frac{\text{Number of Modules} \times \text{Rack Wiring Rem. Rate} \times \text{Labor Rate}}{60 \text{ min/hr}}$$

Total = \$ 1,973.00

4 LOAD RACK WIRING

Strands of rack wire are loaded into a front end loader by a laborer and transported to a truck which hauls the wiring off-site.

$$\text{Equipment Days} = \frac{(\text{Number of Modules} \times \text{Rack Wiring Loading Rate})}{60 \text{ min/hr}} / 8 \text{ hrs/day} \quad \text{Equipment Days} = 8$$

$$Cost = \frac{(\text{Number of Modules} \times \text{Rack Wiring Loading Rate} \times \text{Laborer Rate})}{60 \text{ min/hr}} + (\text{Equipment Days} \times \text{Front Loader Cost})$$

Total = \$ 9,973.00

5 DISMANTLE RACKS

The racking will be disconnected from the foundations and removed.

$$Cost = \frac{\text{Number of Racks} \times \text{Rack Dismantling Rate} \times \text{Labor Rate}}{60 \text{ min/hr}}$$

Total = \$ 1,199.00

6 LOAD RACKS

Once the racks have been dismantled, they will be placed in a front end loader and loaded onto trucks for removal from the site.

$$\text{Equipment Days} = \frac{(\text{Number of Racks} \times \text{Rack Loading Rate})}{60 \text{ min/hr}} / 8 \text{ hrs/day} \quad \text{Equipment Days} = 2$$

$$Cost = \frac{(\text{Number of Racks} \times \text{Rack Loading Rate} \times \text{Laborer Rate})}{60 \text{ min/hr}} + (\text{Equipment Days} \times \text{Front End Loader Cost})$$

Total = \$ 2,400.00

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Labor, Material, and Equipment Costs

7 REMOVE FOUNDATIONS

Foundation piles will be removed with a backhoe, using a laborer as an additional spotter.

$$\text{Equipment Days} = \left(\frac{\text{Number of Foundations} \times \text{Foundation Removal Rate}}{60 \text{ min/hr}} \right) / 8 \text{ hrs/day} \quad \text{Equipment Days} = \underline{\hspace{2cm}} 2$$

$$\text{Cost} = \left(\frac{\text{Number of Foundations} \times \text{Foundation Removal Rate} \times \text{Laborer Rate}}{60 \text{ min/hr}} \right) + (\text{Equipment Days} \times \text{Backhoe})$$

$$\text{Total} = \$ \underline{\hspace{2cm}} 4,400.00$$

8 LOAD FOUNDATIONS

Foundations will be loaded into a front end loader and transported to a truck which hauls the foundations off-site.

$$\text{Equipment Days} = \left(\frac{\text{Number of Foundations} \times \text{Foundation Loading Rate}}{60 \text{ min/hr}} \right) / 8 \text{ hrs/day} \quad \text{Equipment Days} = \underline{\hspace{2cm}} 5$$

$$\text{Cost} = \left(\frac{\text{Number of Foundations} \times \text{Foundation Loading Rate} \times \text{Laborer Rate}}{60 \text{ min/hr}} \right) + (\text{Equipment Days} \times \text{Front End Loader Cost})$$

$$\text{Total} = \$ \underline{\hspace{2cm}} 6,199.00$$

9 REMOVE & LOAD ELECTRICAL EQUIPMENT

Inverters, transformers, and switchboards are considered electrical equipment. Electrical equipment will be removed from pads and/or mountings. A front end loader will be used to move the equipment to trucks which haul the equipment off-site.

$$\text{Labor Hours} = \left| \frac{\text{Number of Inverters}}{\text{Inverter Removal Rate}} + \frac{\text{Number of Transformers}}{\text{Transformer Removal Rate}} + \frac{\text{Number of Switchboards}}{\text{Switch Rate}} \right|$$

$$\text{Labor Hours} = \underline{\hspace{2cm}} 32$$

$$\text{Equipment Days} = \text{Labor Hours} / (8 \text{ hr/day}) \quad \text{**Rounded up to nearest whole day**}$$

$$\text{Equipment Days} = \underline{\hspace{2cm}} 4$$

$$\text{Cost} = (\text{Labor Hours} \times \text{Laborer Rate}) + (\text{Equipment Days} \times \text{Front End Loader Cost})$$

$$\text{Total} = \$ \underline{\hspace{2cm}} 5,120.00$$

10 REMOVE & LOAD LOW VOLTAGE ELECTRICAL WIRING

Underground electrical conduits and associated electrical wiring will be removed with a backhoe and front end loader, using an additional laborer as a spotter.

$$\text{Equipment Days} = \left(\frac{\text{Length of Wiring} \times \text{Wiring Removal Rate}}{60 \text{ min/hr}} \right) / 8 \text{ hrs/day}$$

$$\text{Equipment Days} = \underline{\hspace{2cm}} 2$$

$$\text{Cost} = \left(\frac{\text{Length of Wiring} \times \text{Wiring Removal Rate} \times \text{Laborer Rate}}{60 \text{ min/hr}} \right) + (\text{Equipment Days} \times (\text{Backhoe Cost} + \text{Front End Loader Cost}))$$

$$\text{Total} = \$ \underline{\hspace{2cm}} 6,449.00$$

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Labor, Material, and Equipment Costs

11 REMOVE & LOAD POWER POLES

Power poles will be disconnected from mounted equipment and overhead wiring, removed and loaded onto a truck for removal off-site.

$$\text{Equipment Days} = \left(\frac{\text{Number of Poles} \times \text{Pole Removal Rate}}{8 \text{ hr/day}} \right) \quad \text{Equipment Days} = \underline{\hspace{2cm}} \quad 4$$

$$\text{Cost} = (\text{Number of Poles} \times \text{Pole Removal Rate} \times \text{Laborer Rate}) + (\text{Equipment Days} \times \text{Excavator Cost})$$

$$\text{Total} = \$ \underline{\hspace{2cm}} \quad 5,050.00$$

12 GRAVEL/LEVEL SPREADER RECLAMATION

Reclamation of the gravel access road and level spreaders will entail removing the gravel material. The area will then be backfilled with native on-site material and graded. Excludes gravel export hauling off-site. Assumes import of soil matching native soil composition is not required.

Cost

$$\begin{aligned} &= ((\text{Rough Grading Rate} + \text{Fine Grading Rate}) \times \text{Grader Cost}) \\ &+ ((\text{Access Rd. Volume} + \text{Level Spreader Volume}) \times (\text{Gravel Excavation Cost})) \end{aligned}$$

$$\text{Total} = \$ \underline{\hspace{2cm}} \quad 85,728.00$$

13 REMOVE & LOAD SCREENING TREES

Screening trees will be removed by laborers and loaded onto a truck which hauls the trees off-site.

$$\text{Cost} = ((\text{Number of Trees} \times (\text{Tree Removal Laborer Rate} + \text{Tree Removal Equipment Rate})) + (\text{Number of Trees} / \text{Tree Loading Rate}))$$

$$\text{Total} = \$ \underline{\hspace{2cm}} \quad -$$

14 REMOVE & LOAD FENCING

Fencing posts, fabric, and foundations will be removed from position and placed on trucks which will haul the fencing off-site.

$$\text{Equipment Days} = \left(\frac{\text{Length of Wiring} \times \text{Wiring Removal Rate}}{60 \text{ min/hr}} \right) / 8 \text{ hrs/day} \quad \text{Equipment Days} = \underline{\hspace{2cm}} \quad 2$$

$$\text{Cost} = \left(\frac{\text{Length of Fence} \times \text{Fence Removal Rate} \times \text{Laborer Rate}}{60 \text{ min/hr}} \right) + (\text{Equipment Days} \times \text{Backhoe Cost})$$

$$\text{Total} = \$ \underline{\hspace{2cm}} \quad 5,468.00$$

15 SEEDING

Seeding cost includes materials for reseeding all disturbed areas including the reclaimed gravel road area, reclaimed level spreader areas, former electrical areas, and areas disturbed by racking and foundation removal. Low ground pressure equipment will be used and disturbance will be minimized. It is assumed 30% of the Total Disturbed Area will require seeding.

$$\text{Cost} = (\text{Disturbed Area} \times \text{Seeding Cost} * 0.3)$$

$$\text{Total} = \$ \underline{\hspace{2cm}} \quad 11,685.00$$

16 HAUL TO TRANSFER STATION

All materials removed will be trucked to the nearest Transfer station that accepts construction material. The nearest transfer station is Harlem Valley Transfer Station located at 1933 NY-22, Wingdale, NY 12594.

$$\text{Cost} = \text{Truckloads} ((\text{Roundtrip Distance} \times \text{Fuel Cost}) + (\text{Roundtrip Time} \times \text{Trucking Cost}))$$

$$\text{Total} = \$ \underline{\hspace{2cm}} \quad 8,756.00$$

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Summary of Decommissioning Costs

The costs below are the current estimated costs to decommission a 5.0 MWac Solar Facility, based on guidance from NYSERDA and estimates from the New York solar market. The salvage values of valuable recyclable materials (aluminum, steel, copper, ect) are not factored into the below costs.

LINE ITEM	TASK	COST
1	Remove Modules	\$ 7,889.00
2	Load Modules	\$ 36,889.00
3	Remove Rack Wiring	\$ 1,973.00
4	Load Rack Wiring	\$ 9,973.00
5	Dismantle Racks	\$ 1,199.00
6	Load Racks	\$ 2,400.00
7	Remove Foundations	\$ 4,400.00
8	Load Foundations	\$ 6,199.00
9	Remove & Load Electrical Equipment	\$ 5,120.00
10	Remove & Load Low Voltage Electrical Wiring	\$ 6,449.00
11	Remove & Load Power Poles	\$ 5,050.00
12	Gravel/Level Spreader Reclamation	\$ 85,728.00
13	Remove & Load Screening Trees	\$ -
14	Remove & Load Fencing	\$ 5,468.00
15	Seeding	\$ 11,685.00
16	Haul to Transfer Station	\$ 8,756.00
17	Assumed Permitting Costs	\$ 3,000.00
18	Assumed Mobilization & Demobilization Costs	\$ 10,000.00
Total =		\$ 212,178.00
Rounded Total =		\$ 213,000.00
125% Bond =		\$ 266,250.00

Summary of Decommissioning Fund

A decommissioning fund to guarantee that monies are available to perform the facility decommissioning will be created. The funds will be established as a bond, and will remain available to the Town to perform the decommissioning if needed. At the start of construction a bond will be established in the total amount of the project's 35-year maturity with a 2.0% inflation rate. The landowner may choose to keep the trees or road following the decommissioning of the site with the written approval from the town.

Inflation Rate = 2.0%

YEAR	BOND VALUE
1	\$ 266,250
2	\$ 271,575
3	\$ 277,007
4	\$ 282,547
5	\$ 288,198
6	\$ 293,962
7	\$ 299,841
8	\$ 305,838
9	\$ 311,954
10	\$ 318,193
11	\$ 324,557
12	\$ 331,048
13	\$ 337,669
14	\$ 344,423
15	\$ 351,311
16	\$ 358,337
17	\$ 365,504
18	\$ 372,814

YEAR	BOND VALUE
19	\$ 380,271
20	\$ 387,876
21	\$ 395,633
22	\$ 403,546
23	\$ 411,617
24	\$ 419,849
25	\$ 428,246
26	\$ 436,811
27	\$ 445,548
28	\$ 454,459
29	\$ 463,548
30	\$ 472,819
31	\$ 482,275
32	\$ 491,921
33	\$ 501,759
34	\$ 511,794
35	\$ 522,030