Appendix G
Draft Decommissioning Plan

Summit Lake Solar Facility and Battery Energy Storage System
Joint Site Permits Application
February 2025
MPUC Docket Nos. IP-7153/GS-25-89 and IP-7153/ESS-25-88

This Decommissioning Plan will be updated to reflect the final Project design.

A DECOMMISSIONING PLAN FOR

Summit Lake Solar & Storage Project

Nobles County, Minnesota

JANUARY 29, 2025

MPUC DOCKET NO. XX-XXXX/XX-XX-XX

PREPARED FOR:

Summit Lake Solar, LLC

PREPARED BY:

Westwood

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Westwood

Decommissioning Plan

Summit Lake Solar & Storage Project

Nobles County, Minnesota

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Project Number: 0036437.00

Date: January 29, 2025

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1.0 Introduction

Summit Lake Solar, LLC ("Summit Lake Solar," "Applicant" or "Owner") is proposing to construct and operate the Summit Lake Solar Project ("Project"), an up to 200-MWac nameplate solar-energy capacity project paired with a 200-MW/800 MW-hr battery energy storage system (BESS) located within the approximate 1,989.6-acre Project Area in Nobles County, Minnesota.

The following provisions are intended to ensure that facilities are properly removed after their useful life. This Decommissioning Plan ("Plan") includes provisions for removal of all structures, foundations, underground cables, unused transformers and foundations; restoration of soil and vegetation; and a plan ensuring financial resources will be available to fully decommission the Project.

The Plan was prepared in accordance with the conditions described in the Minnesota Department of Commerce (DOC) Energy Environmental Review and Analysis (EERA) *Recommendations on Review of Solar and Wind Decommissioning Plans (March 16, 2020)*, the EERA *Application Guidance for Site Permitting of Solar Farms (January 2024)*, and in accordance with the Minnesota Public Utilities Commission ("MPUC" or "Commission") Site Permit (MPUC Docket No. XX-XXXX/XX-XX-XX) to be issued for the Project. The Nobles County Zoning Ordinance has also been considered in the development of this Plan.

1.1 Project Description

The Project is located in Nobles County, Minnesota, near the intersection of MN State Highway 266 and 190th Street, near the city of Reading. It is located within Sections 10, 12-14, and 22-24 of Township 103 North, Range 41 West and Section 18 of Township 103 North, Range 40 West. Prior to construction, the Project area and surrounding areas were primarily used for agriculture.

The Project consists of approximately 490,740 photovoltaic (PV) solar panels, 52 inverters, 4,601 racking frames, 103,404 linear feet of fencing (around Project facilities), 82,664 linear feet of access roads, a BESS with 50 containers and 25 transformers, a Project Substation with 2 main power transformers, and associated equipment. Project facilities are planned to be located within the fenced area of approximately 1,564 acres.

1.2 Decommissioning Objective

The objective of decommissioning is to restore the site to a condition that will facilitate its pre-construction use at the end of operation. Solar panels are expected to have a useful commercial lifespan of approximately thirty (30) years. The system must be decommissioned if: a) it reaches the end of system's serviceable life; or b) the system becomes a discontinued use. After the Site Permit term expires, the Project operation may be extended (upon Commission review and approval) or the Project ceases to operate. The Project Owner will be responsible for removal of all above ground equipment and underground equipment within the Project Area. The Owner will restore and reclaim the site to pre-construction topography and topsoil quality to the extent practical and assumes that most of the site will be returned to farmland and/or pasture after decommissioning.

Decommissioning includes removing the solar panels, solar panel racking, steel foundation posts and beams, inverters, transformers, shallow underground cables and lines, equipment pads and foundations,

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equipment cabinets, and ancillary equipment. The civil facilities (access road, security fence, and drainage structures) are included in the scope. Standard decommissioning practices would be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements.

After all equipment is removed, any holes or voids created by poles, concrete pads and other equipment will be filled in with native soil to the surrounding grade, and the Project site will be restored to pre-construction conditions, to the extent feasible. All access roads and other areas compacted by equipment will be de-compacted to a depth necessary to ensure adequate soil drainage and root penetration, then will be fine graded and tilled to a farmable condition.

In accordance with the Site Permit requirements, the Project will have been maintained with perennial native vegetation, which is expected to survive decommissioning activities. Consequently, efforts to restore the site under the arrays, if the land is not returned to row crop agriculture, is expected to be limited to over-seeding. Over-seeding would be completed by a qualified native seeding contractor. Restoration efforts may also include temporary seeding as farmland or re-development of the land for other beneficial uses, based on consultation with the landowner.

1.3 Use of Generation Output

The Project's collector substation is located in the southwest portion of the Preliminary Development Area, where it is adjacent to the Nobles Substation (i.e., the POI). An approximately 1,100-foot 345-kilovolt (kV) transmission generation tie-line will interconnect the Project's collector substation to the Nobles Substation. Transformers located within the Project's collector substation will step up the collection system voltage to 345-kV. BESS will be connected to the project substation and allow for solar generated energy to be stored temporarily and, as needed, later transmitted to the power grid. The solar and BESS portions of the Project are planned to operate in tandem as one combined, associated facility. This configuration will reduce the variability of solar energy generation.

The Project is working to secure a Power Purchase Agreement, Build Transfer Agreement, Development Transfer Agreement, or other enforceable offtake agreements to sell the electricity, Renewable Energy Certificates and capacity generated or stored by the Project. The power generated or stored by the Project will be offered to wholesale customers, including Minnesota utilities and cooperatives that have identified a need for additional low-cost renewable energy and capacity, and corporate and industrial customers that have set clean energy goals.

2.0 Proposed Future Land Use

Prior to the development of the Project, the land use of the project area was primarily agricultural production. After affected areas are decommissioned, these areas will be restored to pre-construction conditions of agricultural land to the extent practicable in accordance with Site Permit and other requirements.

3.0 Notification

The Applicant anticipates operating the Project for 30 years after Site Permit issuance. At the end of the

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anticipated operation, the Project Owner will be responsible for removing the solar facilities as described in this Plan; however, the Project Owner reserves the right to continue to operate the Project, instead of decommissioning, by applying for an extension of required and applicable permits.

After the Project has reached the end of its useful life, and at least ninety (90) days prior to the start of decommissioning activities, the Project Owner will notify the Commission, landowners, affected parties, counties, and other local units of government in writing, of the intended decommissioning activities and schedule. Applicable permits and approvals will be obtained prior to the start of decommissioning work. These parties will again be notified once decommissioning activities have been completed.

4.0 Decommissioning Tasks and Timing

Decommissioning will include the removal and transportation of all project components from the Project site. All dismantling, removal, recycling, and disposal of materials generated during decommissioning will comply with rules, regulations, and prevailing Federal, State, and local laws at the time decommissioning is initiated and will use approved local or regional disposal or recycling sites as available. Recyclable materials will be recycled to the furthest extent practicable. Non-recyclable materials will be disposed of in accordance with State and Federal law.

During decommissioning, the landowners will be consulted to identify the extent and type of work to be completed. Some Facility infrastructure, such as the access roads, and fencing, may be removed at the discretion of the landowner(s). Underground utility lines, if deeper than 48 inches below ground surface elevation, may be left in place to minimize land disturbance and associated impacts to future land use.

4.1 Decommissioning of Project Components

4.1.1 Solar Modules

Solar modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed, palletized, and shipped to an offsite facility for reuse or resale. Non-functioning modules will be shipped to the manufacturer or a third party for recycling or disposal.

4.1.2 Racking

Racking and racking components will be disassembled and removed from the steel foundation posts, processed to appropriate size, and sent to a metal recycling facility.

4.1.3 Steel Foundation Posts

Structural foundation steel posts will be pulled out to full depth, removed, processed to appropriate size, and shipped to a recycling facility. The posts can be removed using back hoes or similar equipment. During decommissioning, the area around the foundation posts may be compacted by equipment and, if compacted, the area will be decompacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for vegetation.

4.1.4 Underground Cables and Lines

All underground cables and conduits will be removed to a depth of 48 inches as specified in the lease

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agreements. Facilities deeper than 48 inches may remain in place to limit vegetation and surface disturbance. The underground cables around equipment pads will be completely removed up to a length of 25' around the perimeter of pads. Topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. The subgrade will be compacted per standards. Topsoil will be redistributed across the disturbed area. The steel transmission poles will be felled within the transmission line right-of-way (ROW) and any hardware, bracing, and attachments will be transported along with the poles to a recycling facility. Removed pole locations will be revegetated with a seed mix specified in the approved Stormwater Pollution Prevention Plan (SWPPP) and VMP.

4.1.5 Inverters, Transformers, and Ancillary Equipment

All electrical equipment will be disconnected and disassembled. All parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Applicant's sole discretion, consistent with applicable regulations and industry standards.

4.1.6 Equipment Foundations and Ancillary Foundations

The ancillary foundations are pile foundations for the equipment pads. As with the solar array steel foundation posts, the foundation piles will be pulled out completely. Duct banks will be excavated to a depth of at least 48 inches. All unexcavated areas compacted by equipment used in decommissioning will be decompacted in a manner to adequately restore the topsoil and sub-grade material to a density similar to the surrounding soils. All materials will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

4.1.7 Fence

Fence parts and foundations will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. The surrounding areas will be restored to pre-solar farm conditions to the extent feasible.

4.1.8 Access Roads

Facility access roads will be used for decommissioning purposes, after which removal of roads will be discussed with the landowner(s) and one of the following options will be pursued:

1. After final clean-up, roads may be left intact through mutual agreement of the landowner and the Owner unless otherwise restricted by federal, state, or local regulations.
2. If a road is to be removed, aggregate will be removed and shipped from the site to be reused, sold, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. Internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. Any ditch crossing connecting access roads to public roads will be removed unless the landowner requests it remains. The subgrade will be decompacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for reintroduction of farming. Topsoil that was stockpiled during the original

construction will be distributed across the open area. Finally, the access road corridors will be tilled to an agricultural condition.

4.1.9 Substation

Decommissioning of the collector substation will be performed with the rest of the Project. All steel, conductors, switches, transformers, and other components of the substation will be disassembled and taken off site to be recycled or reused. Foundations and underground components will be removed to a depth of 48 inches. The rock base will be removed using bulldozers and backhoes or front loaders. The material will be hauled from the site using dump trucks to be recycled or disposed at on off-site facility. Additionally, any permanent stormwater treatment facilities (e.g., infiltration ponds and engineered drainage swales) will be removed. Topsoil will be reapplied to match surrounding grade to preserve existing drainage patterns. Topsoil and subsoil will be decompacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for reintroduction of farming.

4.1.10 Battery Energy Storage Systems (BESS)

Prior to commencing decommissioning of the BESS, all personnel on-site during the decommissioning process will receive a site-specific safety briefing and will be made aware of all electrical shock and arc flash risks when working within the battery containers. Hazmat training will also be conducted for all personnel handling lithium-ion batteries during the process.

The battery facility will be fully discharged to the minimum state of charge required for removal and safe transportation as per battery manufacturer specifications. The battery modules will be removed from their racks, repackaged on site, and shipped intact to a regional recycling hub within 500 miles of the Project Site. No disassembly of battery modules will be required on-site, and the battery terminals will be taped off to avoid any potential for a short to occur. In the event of any breakage or damage to individual battery modules, such modules will be placed in individual, non-metallic inner packaging that completely encloses the cell.

The refrigerant/coolant from HVAC units will be collected into separate containers on site as per the code and industry standard practice. The coolant can be reused after processing. The HVAC units will be sent to the metal recyclers along with other recycling material. Similarly, all fire suppression units will be cleared of the suppression fluids and sent to the suppliers for reuse following the industry standard practice. All electrical equipment will be disconnected and disassembled. All parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Project Owner's sole discretion, consistent with applicable regulations and industry standards.

Finally, aggregate ground cover will be removed and shipped from the Project site to be reused, sold, or disposed of appropriately, at the Applicant/Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. All internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. All pile foundations will be pulled out completely. Underground cables and duct banks will be removed to a depth of four feet. Topsoil will be reapplied to the disturbed area. Soil and topsoil will be de-compacted, and the site will be restored to the pre-construction condition and re-vegetated in accordance with the SWPPP and/or construction stormwater permits.

In all cases, the Applicant, or their subcontractor as applicable, shall ensure all applicable OSHA, security,

safety and health requirements are complied with during the removal and decommissioning of the BESS and its related equipment.

The United States Environmental Protection Agency ("U.S. EPA") has guidelines for responsible disposal and recycling of lithium-ion batteries that have reached end of life (Title 40 Code of Federal Regulations Part 273: Standards for Universal Waste Management). Additionally, lithium-ion batteries are classified by the US Department of Transportation (DOT) as Class 9 hazardous materials. All applicable requirements related to the packaging, labelling, transportation, and disposal or recycling of the lithium-ion batteries will be followed during the decommissioning process. contained in the Code of Federal Regulations, Title 49, Subchapter C, Parts 171-180, or the applicable regulation will be followed.

4.2 Component Disposal

Project components removed from the Project site will be resold, reused, recycled, or scrapped to the greatest extent possible.

- Metal components will be processed to size, sorted, and hauled to a recycling facility (Shine Brothers Corporation of MN in Worthington, Minnesota, approximately 9.6 miles from the Project site) to be processed as scrap. This includes:
    - Steel components, including steel piles and trackers, chain-link fencing, structural steel from the substation, and smaller components from recycled equipment.
    - Underground and grounding cables, typically composed of aluminum and copper.
    - Copper windings from transformers and inverters, and the copper ground grid from the substation.
- Other electrical equipment may be assessed for its condition and either sold for reuse or scrapped from its components.
- Fluids, such as transformer oils, will be drained and shipped off-site to an approved recycling facility.
- Solar panels will be resold or recycled to the greatest extent possible, based on their age and condition, as well as market conditions around resale of solar panels and advancements in recycling technologies. For the purposes of this cost estimate, it is assumed that 95% of panels will be resold to another party for reuse or recycling. The estimate further assumes that 5% will be damaged beyond repair and will be hauled to a landfill that accepts solar module components as approved wastes.
- Crushed concrete will be hauled to a concrete recycling facility. Concrete will be crushed and rebar or other metals will be separated out for recycling. The remaining concrete will then be processed into aggregate that may be used as a building material again in the future.

Project components that are not recyclable may include items composed of mixed materials, certain plastic components, materials that have been contaminated, and certain general municipal wastes. For the purposes of this Plan, it is assumed that these materials will be hauled to Nobles County Landfill, located in Rushmore, Minnesota, approximately 5 miles from the site.

4.3 Reclamation

The Owner will restore and reclaim the site to the pre-Project condition consistent with the site lease agreements, AIMP, and VMP, as applicable. The Owner assumes that most of the Project site will be

returned to farmland after decommissioning and will implement appropriate measures to facilitate such uses. If no specific use is identified, the Owner will plant unvegetated portions of the site with a seed mix specified in the approved SWPPP, AIMP and VMP, as applicable. The goal of restoration will be to restore natural hydrology and plant communities to the greatest extent practicable, while minimizing new disturbance and removal of native vegetation or vegetation established during operation of the facility. The decommissioning effort will implement construction stormwater best management practices (BMPs) to minimize erosion and to contain sediment on the Project to the extent practicable, including the following:

1. Minimize new disturbance and removal of native vegetation to the greatest extent practicable.
2. Remove solar equipment and all access roads up to a minimum depth of 48", backfill with subgrade material, and cover with suitable topsoil to allow adequate root penetration for plants, and so that subsurface structures do not substantially disrupt ground water movements.
3. Any topsoil that is removed from the surface for decommissioning will be stockpiled to be reused when restoring plant communities or agricultural land. Once decommissioning activity is complete, topsoil will be re-spread to assist in establishing and maintaining plant communities.
4. Stabilize soils and return them to agricultural use, according to the landowner direction.
5. During and after decommissioning activities, install erosion and sediment control measures, such as silt fences, bio-rolls, and ditch checks in all disturbance areas where potential for erosion and sediment transport exists, consistent with storm water management objectives and requirements.
6. Remediate any petroleum product leaks and chemical releases from equipment operation and electrical transformers prior to completion of decommissioning.

5.0 Permitting

All decommissioning and restoration activities will comply with applicable federal, state, and local permit requirements. Decommissioning activities will likely disturb more than one acre of soil and trigger the need for a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater General Permit. A SWPPP will be developed prior to filing a Notice of Intent.

If necessary for decommissioning activities, wetlands and waters permits will be obtained as needed from the US Army Corps of Engineers (USACE), Minnesota Department of Natural Resources (MNDNR), and the local government unit (LGU) that implements the Minnesota Wetland Conservation Act (WCA) program. A Spill Prevention, Control and Countermeasures (SPCC) Plan for decommissioning will likely be required. A Minnesota Pollution Control Agency (MPCA) form to report Subsurface Sewage Treatment Systems (SSTS) abandonment may need to be submitted to Faribault County within 90 days of removal of the septic system at the O&M building. In addition, a new Minnesota Department of Health (MDH) Well Disclosure Certificate may be required if the number and status of wells within the Project O&M building facility has changed since the last certificate was filed.

6.0 Decommissioning Schedule

It is anticipated that the decommissioning activities for the project can be completed in a 50-week

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period. Because relatively fewer utility-scale solar farms have been fully decommissioned to date, there is limited historical data for durations available for some of the decommissioning activities that can be applied directly.

7.0 Decommissioning Costs

The estimated costs for decommissioning are tied to assumptions about the amount of equipment mobilized, the crew sizes, weather and climate conditions, and the productivity of the equipment and crews. The decommissioning costs are calculated using current pricing. In keeping with the DOC EERA recommendations, the estimate of net costs should be updated every five (5) years to recognize price trends for both decommissioning costs and the salvage and resale values of the components.

There are currently active markets for scrap steel, aluminum, and copper, used transformers and electrical equipment, and used solar panels. Scrap metal prices have been discounted from posted spot prices found on www.scrapmonster.com. Pricing for used panels has been discounted from the average price of used panels, as published in EnergyBin's 2023 "Module Price Index."

The total estimated cost of decommissioning the Summit Lake Solar Project is approximately $23,593,198 ($90,708 per MW). Estimated salvage/scrap value of the modules, racking, transformers, and other materials is approximately $39,457,909. The net decommissioning costs after accounting for resale and salvage values is approximately $15,864,800 in surplus, or $60,995 in surplus per MW.

8.0 Financial Surety

The Project anticipates operating the Project for 30 years or until the Site Permit expires. The Applicant reserves the right to continue to operate the Project, instead of decommissioning, by applying for an extension of required permits. Should the Project Owner decide to continue operations, a decision may be made on whether to continue operation.

The Project Owner will be responsible for all costs to decommission the Project and associated facilities. A Financial Assurance in the form of an escrow account or surety bond equal to 125% of the costs to ensure proper decommissioning will be provided, with Nobles County listed as the beneficiary. Under DOC EERA recommendations, a Financial Assurance is not required during the first ten (10) years of operation; however a bond will be posted no earlier than the 10th anniversary from the Commercial Operation Date (COD) of the Project.

According to the EERA recommendations, a revised decommissioning estimate shall be submitted every 5 years or any time there is a change in ownership. Each revised plan will reflect advancements in construction techniques, reclamation equipment, and decommissioning standards. The decommissioning cost estimate will also be reassessed and revised to reflect any identified changes in the costs, including current salvage values of materials and equipment. The amount of the Financial Assurance will be adjusted accordingly to offset any increases or decreases in decommissioning costs and salvage values determined during each plan reassessment.

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Attachment A

Decommissioning Cost Estimate

Summit Lake Solar Project

	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	Lump Sum	$1,516,900.00	$1,516,900
Mobilization was estimated to be approximately 7% of total cost of other items.				
Permitting				
County Permits	1	Lump Sum	$10,000.00	$10,000
State Permits	1	Lump Sum	$20,000.00	$20,000
Subtotal Permitting				**$30,000**
Decommissioning will require SWPPP and SPCC Plans. Cost is an estimate of the permit preparation cost.				
Civil Infrastructure				
Remove Gravel Surfacing from Road	32,657	Cubic Yards (BV)	$3.11	$101,563
Haul Gravel Removed from Road to Landfill (Rushmore, MN)	40,821	Cubic Yards (LV)	$11.25	$459,236
Dispose of Gravel Removed from Road (Landfill uses as Daily Cover)	52,904	Tons	$0.00	$0
Remove Geotextile Fabric from Beneath Access Roads	183,697	Square Yards	$1.40	$257,176
Haul Geotech Fabric to Landfill (Rushmore, MN)	51	Tons	$5.30	$270
Dispose of Geotech Fabric	51	Tons	$81.00	$4,131
Remove and Load Culvert from Beneath Access Roads	12	Each	$420.00	$5,040
Haul Culvert Removed from Access Roads to Landfill (Rushmore, MN)	12	Each	$36.35	$436
Dispose of Culvert	4	Tons	$81.00	$292
Remove Low Water Crossing from Access Road	1	Each	$3,400.00	$3,400
Haul Low Water Crossing Materials to Landfill (Rushmore, MN)	40	Ton	$5.30	$212
Dispose of Low Water Crossing Materials	40	Ton	$30.00	$1,200
Grade Road Corridor (Re-spread Topsoil)	82,664	Linear Feet	$1.76	$145,489
Decompact Road Area	38.0	Acres	$222.97	$8,473
Remove Chainlink Fence	103,404	Linear Feet	$7.82	$808,619
Haul Chainlink Fence to Metal Recycling (Worthington, MN)	551	Tons	$10.31	$5,681
Remove/Haul/Dispose Structures from Stormwater Basins	1	Each	$5,000.00	$5,000
Grade Basin Areas	1	LS	$1,792.04	$1,792
Subtotal Civil Infrastructure				**$1,808,010**
Civil removal costs are a combination of MNDOT unit costs where applicable, RSMeans cost for Windom, MN, and industry standards provided to Westwood.				
Structural Infrastructure				
Remove Steel Foundation Posts (Arrays)	90,992	Each	$16.60	$1,510,467
Haul Steel Post to Metal Recycling (Worthington, MN)	8,189	Tons	$10.31	$84,429
Remove Tracker Racking per String	81,790	Each	$52.43	$4,288,250
Haul Tracker Racking to Metal Recycling (Worthington, MN)	15,677	Tons	$10.31	$161,630
Subtotal Structural Infrastructure				**$6,044,775**
Steel removal costs were calculated by using RSMeans information for demolition of steel members.				
Hauling calculations are based on the locations of metals recyclers.				
Electrical Collection System				
Remove PV Panels	490,740	Each	$10.95	$5,373,603
Haul PV 95% of Panels to Reseller (Louisville, KY)	20,402	Tons	$274.35	$5,597,289
Haul 5% of PV Panels to Landfill (Rushmore, MN)	1,074	Tons	$10.32	$11,084
Dispose of PV Panels	1,074	Tons	$81.00	$86,994
Remove Combiner Boxes	1,248	Each	$60.00	$74,880
Remove Equipment Skids	52	Each	$1,167.48	$60,709
Remove Equipment Pad Concrete Foundations	52	Each	$1,945.29	$101,155
Haul Concrete Foundations	23	Tons	$33.57	$772
Dispose Concrete Foundations	23	Tons	$15.00	$345
Haul Equipment to Transformer Disposal (Eagan, MN)	52	Each	$514.09	$26,733
Remove SCADA Equipment	1	Each	$2,000.00	$2,000
Remove DC Collector System Cables (copper)	260.10	Per MW	$2,000.00	$520,200
Remove Underground (AC) Collector System Cables & Fiber Optic	127,369	Linear Feet	$2.65	$337,528
Load and Haul Cables for Recycling	4,036	Tons	$11.86	$47,867
Subtotal Electrical Collection				**$12,241,158**

Electrical removal costs of PV Panels and Combiner Boxes were based industry standard installation rates. Equipment pads, MV Equipment, and SCADA Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and RSMeans information on crew production rates.

Substation				
Disassemble and Remove Main Power Transformer(s)	2	Each	$4,500.00	$9,000
Haul Transformer(s) Offsite	2	Each	$1,028.17	$2,056
Haul Transformer Oil Offsite	25,660	Gallons	$0.21	$5,277
Dispose of Transformer (Including Oil) (Salvage Value)	2	Each	$0.00	$0
Excavate Around Transformer Foundation(s)	2	Each	$1,987.50	$3,975
Remove Complete Transformer Foundation(s)	167	Cubic Yards	$152.24	$25,424
Backfill Excavation Area from Transformer Foundation Removal	169	Cubic Yards	$43.27	$7,313
Haul Concrete (Foundations Transformer, Switch Gear, etc.)	339	Tons	$33.57	$11,380
Dispose of Concrete from Transformer Foundation	339	Tons	$15.00	$5,085
Demolish Substation Site Improvements (fences, etc)	1	LS	$3,500.00	$3,500
Demolish Control Building and Foundation	1	LS	$12,000.00	$12,000
Remove Medium/High Voltage Equipment	1	LS	$3,500.00	$3,500
Remove Structural Steel Substation Frame	1	LS	$3,500.00	$3,500
Remove Copper Ground Grid	1	LS	$15,400.00	$15,400
Load Copper Wire	20,000	Feet	$0.81	$16,200
Haul Copper Wire to Recycling	6.5	Tons	$10.31	$67
Haul - Demolition Materials, Removed Equipment & Structural Steel	20	Tons	$10.31	$206
Dispose of Demolition Materials & Removed Equipment	20	Tons	$81.00	$1,620
Remove and Load Gravel Surfacing from Substation Site	5,432	Cubic Yards (BV)	$3.11	$16,894
Haul Gravel Removed from Substation Site	6,790	Cubic Yards (LV)	$11.25	$76,388
Grade Substation Site	220,000	SF	$0.07	$15,400
Erosion and Sediment Control at Substation Site	940	LF	$3.83	$3,600
Decompact Substation Site (Subsoiling)	5.1	Acres	$222.97	$1,137
Till Substation to Agricultural Condition	5.1	Acres	$177.52	$905
Subtotal Substation				**$239,827**
Battery Energy Storage System (BESS)				
Train Crew in Safety and Hazmat	1	LS	$5,000.00	$5,000
Disconnect Battery Storage Containers	50	Each	$1,530.40	$76,520
Remove Equipment Skids	25	Each	$1,167.48	$29,187
Haul Inverters/Transformers to Transformer Disposal	25	Each	$514.09	$12,852
Remove Steel Foundation Posts (Storage Containers and Skids)	600	Each	$16.60	$9,960
Haul Steel Posts to Metal Recycler (Worthington, MN)	54	Tons	$10.31	$557
Removal of Underground AC Collector Cables (aluminum)	110,250	LF	$2.44	$269,010
Load and Haul Cables for Recycling	138	Tons	$11.86	$1,634
Remove and Load Gravel Surfacing from BESS Site (Including Roads)	17,209	Cubic Yard (BV)	$3.11	$53,520
Haul Gravel Removed from BESS Site	21,511	Cubic Yard (LV)	$11.25	$241,999
Remove Fencing	3,380	LF	$7.82	$26,432
Haul Fencing to Recycling	18	Tons	$10.31	$186
Erosion and Sediment Controls at BESS Site	1,690	LF	$3.83	$6,473
Decompact BESS Site	16	Acres	$222.97	$3,568
Grade BESS Site	696,960	SF	$0.07	$48,787
Till BESS Site to Agricultural Condition	16	Acres	$177.52	$2,840
Subtotal BESS				**$788,524**
Site Restoration				
Stabilized Construction Entrance	12	Each	$2,000.00	$24,000
Perimeter Controls (Erosion and Sediment Control)	51,702	Linear Feet	$3.83	$198,019
Permanent Seeding on Roadway Areas	38.0	Acres	$1,371.33	$52,111
Till Array Areas to Agricultural Condition	1,543	Acres	$177.52	$273,825
Subtotal Site Restoration				**$547,954**

Project Management				
Project Manager	50	Weeks	$3,749.00	$187,450
Superintendent (half-time)	50	Weeks	$1,762.50	$88,125
Field Engineer (half-time)	50	Weeks	$1,634.50	$81,725
Clerk (half-time)	50	Weeks	$375.00	$18,750
Subtotal Project Management				**$376,050**

Standard industry weekly rates from RSMeans.

Subtotal Demolition/Removals	**$23,593,198**

Salvage				
Fencing (Chain Link)	551	Tons	$204.12	$112,470
Steel Posts	6,551	Tons	$204.12	$1,337,190
Module Racking	15,677	Tons	$204.12	$3,199,989
PV Modules	466,203	Each	$55.65	$25,944,197
Transformers and Inverters	463,252	Pounds	$0.32	$148,241
Substation Transformers (Core and Coils)	648,683	Pounds	$0.32	$207,579
Substation Transformers (Tanks and Fittings)	218	Tons	$204.12	$44,498
Transformers (Oil)	65,180	Gallons	$0.70	$45,626
Substation Ground Grid (Copper)	13,000	Pounds	$2.93	$38,090
DC Collection Lines (Copper)	7,020,526	Pounds	$1.07	$7,511,963
AC Collection Lines (Aluminum)	955,271	Pounds	$0.80	$764,217
Ground Conductor Lines (Copper)	97,056	Pounds	$1.07	$103,849
Subtotal Salvage				**$39,457,909**

Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market for solar panel

Total Demolition Minus Salvage	**($15,864,800)**

Notes:

1. Prices used in analysis are estimated based on research of current average costs and salvage values.
2. Prices provided are estimates and may fluctuate over the life of the project.
3. Contractor means and methods may vary and price will be affected by these.

Cost Estimate Assumptions

To develop a cost estimate for the decommissioning of the Summit Lake Solar Project, Westwood engineers made the following assumptions and used the following pricing references. Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet. When publicly available bid prices or State Department of Transportation bid summaries were not available for particular work items, we developed time- and material-based estimates considering composition of work crews and equipment and material required. While materials may have a salvage value at the end of the project life, the construction activity costs and the hauling/freight costs are separated from the disposal costs or salvage value to make revisions to salvage values more transparent.

1. Project quantities are based on Overall Site Plan prepared by Westwood for Summit Lake Solar Project, LLC, dated November 1, 2024.
2. Quantities that were not available at the time this plan was developed (such as the BESS facility components) were either assumed or interpolated from projects of similar size.
3. A project of this size requires a full-time project manager with part-time support staff.
4. Common labor will be used for the majority of tasks, supplemented by electricians, steel workers, and equipment operators where labor rules may require. The labor rates reflect union labor rates.
5. Mobilization was estimated at approximately 7% of total cost of other items.
6. Permit applications will require the preparation of a SWPPP and a SPCC Plan.
7. Road gravel removal was estimated on a time and material basis. Since the material will not remain on site, a hauling cost is added to the removal cost. Clean aggregate can typically be used as “daily cover” at landfills without incurring a disposal cost. The road gravel may also be used to fortify local driveways and roads, lowering hauling costs but incurring placing and compaction costs. The hauling costs to a landfill represents an upper limit to costs for disposal of the road gravel.
8. The selected disposal facility (Nobles County Landfill) is located in Rushmore, MN, approximately 5 miles from the project site. Hauling costs to the landfill are estimated to be $5.30 per ton.
9. Erosion and sediment control along road reflects the cost of silt fence on the downgradient side of the proposed roads. As such, the length of controls has been estimated to be approximately 50% of the road length.
10. Topsoil is required to be stockpiled on site during construction, so no topsoil replacement is expected to replace the road aggregate. Subsoiling cost to decompact roadway areas is estimated as $222.97 per acre, and tilling to an agriculture-ready condition is estimated as $177.52 per acre.
11. The selected metal recycling facility (Shine Brothers Corporation of MN) is located in Worthington, MN, approximately 9.6 miles from the project site. Hauling costs to the recycling facility are approximately $1.07 per ton mile, or $10.31 per ton.
12. Tracker foundation posts are lightweight “I” beam sections installed with a specialized piece of equipment and can be removed with a standard backhoe with an attachment for gripping the piles. We estimate crew productivity at 240 posts per day, resulting in a per post cost of approximately $16.60. The posts weigh approximately 150 pounds each.
13. It is assumed that the racking structures weigh approximately 15 pounds per linear foot of array. Each solar panel has a width of 47.87 inches. The facility will have approximately 490,740 modules and 2,090,246 feet of array. The arrays are made of steel pipes; a crew with hand tools can disassemble and cut the pieces to sizes for recycling at a rate of about 1800 pounds per person per

hour, or about $273.54 per ton.

14. The solar panels for this project measure approximately 3.99 feet by 7.55 feet and weigh 87.52 pounds. They can easily be disconnected, removed, and packed by a three-person crew at a rate we estimate at 18 panels per hour.
15. The equipment skids will consist of inverter(s), a transformer, and a panel on a metal frame approximately 19 feet long by 8 feet wide by 8 feet 6 inches tall. The skids weigh approximately 41,200 pounds and can be disconnected by a crew of electricians. They must be lifted by a mobile crane for transport to the recycler. They contain copper or aluminum windings.
16. The transformers contain copper windings that have significant salvage value. They are typically oil filled, but most transformer recyclers will accept the transformers with oil. The estimated costs include removal of metal frame and conduits feeding the equipment.
17. Medium voltage (MV) equipment and SCADA equipment are mounted on the same equipment skids as the inverters and transformers, and they are enclosed in weatherproof cabinets. Their size requires light equipment to remove them. The costs for the removal of the pile foundations are included in the "Remove Steel Foundation Posts" estimate.
18. The underground collector system cables are placed in trenches with a minimum of 18 inches of cover. Several cables/circuits are placed side by side in each trench. The conduits and cables can be removed by trenching.
19. Perimeter control pricing is based on silt fence installation around downgradient sides of the project perimeter.
20. Metal salvage prices (steel, aluminum, copper) are based on November 2024 quotes from www.scrapmonster.com for the Midwest. Posted prices are three months old. These prices are based on delivery to the recycling facility with the material prepared to meet size, thickness, cleanliness, and other specifications.
21. A reduction of 25% has been taken from all pricing obtained from www.scrapmonster.com to reflect the processing by the contractor to meet the specifications.
22. The salvage value for steel uses pricing from the Midwest United States at $300 per metric ton, or $272.16 for U.S. ton.
23. Solar module salvage values are shown in current values, assuming near-new conditions for the first few years of operations. Pricing for used panels has been discounted from the average resale price of used panels, as published in EnergyBin's 2023 "Module Price Index." Module values will decline over time as a function of loss of output and age.
24. There is an active market for reselling and recycling electrical transformers and inverters with several national companies specializing in recycling. However, we have assumed that the electrical equipment will be obsolete at the time of decommissioning, so we have based the pricing on a percentage of the weight that reflects the copper windings that can be salvaged. Pricing was used for Copper Transformer Scrap for the Midwest United States, at $0.42 per pound.
25. The collection lines are priced assuming copper conductor wire for the direct current circuits and aluminum wire for the alternating current circuits. The prices reflect a reduced yield of copper or aluminum resulting from the stripping of insulation and other materials from the wire prior to recycling. The estimate uses the Midwest prices of #2 insulated copper wire with a 50% recovery rate ($1.43 /pound) and E.C. Aluminum Wire ($1.06 /pound).
26. Care to prevent damage and breakage of equipment, PV modules, inverters, capacitors, and SCADA must be exercised, but removal assumes unskilled common labor under supervision.