Appendix H Decommissioning Plan

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DECOMMISSIONING REPORT FOR Sherco Solar Project

Sherburne County, Minnesota March 26, 2021



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1.0 Executive Summary

At the request of Xcel Energy and National Grid Renewables, Westwood Professional Services ("Westwood") has prepared this "Decommissioning Plan" for the proposed up to 460 megawatt ("MW") alternating current ("AC") Sherco Solar project ("Project") located in Sherburne County, Minnesota. The Decommissioning Plan describes the procedures for, and estimated costs associated with decommissioning the Project and restoring the Project site in accordance with applicable professional engineering and industry standards. The goals for the Decommissioning Plan are to provide the plan and process for restoring the site so that it can be utilized for agricultural uses, or other economical land uses, after the project ceases to operate. The Decommissioning Plan describes procedures and estimated costs for the Project. The anticipated decommissioning costs for the below-ground systems are similar and therefore described conjunctively.

Decommissioning and restoration activities will adhere to the requirements of appropriate governing authorities, and will be in accordance with applicable federal, state, and local permits, including the Site Permit issued by the Minnesota Public Utilities Commission. The decommissioning and restoration process comprises removal of above-ground structures and foundations; grading, to the extent necessary; restoration of topsoil (if needed); and tilling, restoration to farmable condition, and seeding, if the soil will not be used for row crop agriculture. The process of removing structures involves evaluating and categorizing all components and materials into categories of recondition and reuse, salvage, recycling, and/or disposal. The Project consists of numerous materials that can be recycled, including steel, aluminum, glass, copper, and plastics. In the interest of increased efficiency and minimal transportation impacts, components and material may be stored on site until the bulk of similar components or materials are ready for transport. The components and material will be transported to the appropriate facilities for reconditioning, salvage, recycling, or disposal. Above-ground structures include panels, racks, inverters, pads, and fences. Below-ground structures include the foundations and electrical collection system. The above-ground and below-ground structures are collectively referred to herein as the "Project Components."

Solar modules from name brand manufactures that are functioning have value in the resale market, as companies such as We Recycle Solar are working to capture. Therefore the estimate uses the assumption that the majority of the panel will be sold and reused on other projects. In future revisions of the decommissioning plan the options for resale, recycling, and disposal will be evaluated to

determine the most economical disposition of the modules.

For resale, modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed and shipped to an offsite facility for reuse or resale. Non-functioning modules will be packed, palletized and shipped to the manufacturer or a third party for recycling or disposal. To estimate the Project's decommissioning costs and salvage revenues, input was utilized from contractors, landfills, salvage yards, and recycling facilities located in proximity of the Project area and RS Means cost data.

All racking and fencing material will be broken down into manageable units, removed from the facility, and sent to a metal recycler. All racking posts driven into the ground will be pulled and removed. Following decommissioning activities, the sub-grade material and topsoil from affected areas, such as access roads and substation areas, will be de-compacted and restored to a density and depth consistent with the surrounding areas if the areas exhibit densities indicative of significant compaction. All areas will be tilled to an agriculture ready condition. The affected areas will be inspected and thoroughly cleaned, and all construction-related debris will be removed. Disturbed areas not anticipated for agricultural use will be seeded to promote re-vegetation of the area, unless the area is to be immediately redeveloped. In all areas restoration will include, as reasonably required, leveling, terracing, mulching, and other necessary steps to prevent soil erosion, ensure establishment of suitable grasses and forbs if the area will not be converted back to row crop agriculture, and control noxious weeds and pests.

The decommissioning costs also include an estimate of transportation and restoration costs. The estimated decommissioning costs and salvage revenues are expressed in present-day dollars and do not account for inflation or other future changes in costs or salvage values.

Beginning in year fifteen of the Project's operational life, Xcel Energy will either create a reserve fund, enter into a surety bond agreement, create an escrow account, or provide another form of security that will ultimately fund decommissioning and site restoration costs after Project operations cease, to the extent that the salvage value does not cover decommissioning costs. The exact amount to be allocated for decommissioning will be determined by a third-party study in year fourteen that will assess the difference between estimated decommissioning costs and the salvage value.

Decommissioning Estimate

The estimated cost to decommission the Project and restore the Project site was determined by subtracting the estimated salvage revenue of approximately \$48,300,000 from the estimated decommissioning and site restoration costs of approximately \$35,000,000 which results in a surplus of \$13,200,000 to decommission the Project and restore the Project site (approximately surplus \$28,700 per megawatt). The salvage revenue is based upon the resale and scrap values of salvaged materials including material salvaged from the solar panels, racking systems, and electrical equipment rather than the sale and reuse of the equipment in other solar farm projects or other installations. The scrap market, which is impacted by macro-economic events, is difficult to predict and will certainly swing cost estimates.

The tabulated summary is below.

	Decommissioning	Coluga Voluc	Not Cost	Net Cest (NAM	
	Costs 💌		Net Cost	Net Cost/W	
Mobilization/ Demobilization/					
Permitting	\$1,911,400	\$0	\$1,911,400	\$4,137	
PV Site - Civil Infrastructure	\$2,004,208	\$43,042	\$1,961,166	\$4,245	
PV Site - Structural					
Infrastructure	\$6,661,722	\$8,444,387	-\$1,782,665	-\$3,859	
PV Site - Electrical Collection					
System	\$15,617,871	\$39,666,278	-\$24,048,408	-\$52,053	
Overhead Transmission Lines	\$192 079	ŚO	\$192 079	\$416	
	<i>Ş152,075</i>	ΨŪ	<i><i>q</i>±<i>5</i>2,075</i>	 	
PV Site - Restoration	\$2,272,232	\$0	\$2,272,232	\$4,918	
Substation - Transformer					
Removal	\$92,623	\$110,246	-\$17,623	-\$38	
Substation -					
Demolition/Disposal of	\$48,246	\$3,938	\$44,308	\$96	
Substation - Site Gravel					
Removal and Site Restoration	\$273,690	\$0	\$273,690	\$592	
Proiect Management	\$868.000	ŚO	\$868.000	\$1.879	
	,,				
Construction Totals	\$29,942,070	\$48,267,891	-\$18,325,820	-\$39,666	
Contingency	\$4,204,601	\$0	\$4,204,601	\$9,101	
County Administration Costs	\$853,667	\$0	\$853,667	\$1,848	
Totals	\$35,000,338	\$48,267,891	-\$13,267,553	-\$28,718	

*Based upon a preliminary project design of 110 power blocks.

2.0 System Description

For the purposes of this decommissioning plan and estimate, the project is assumed to consist of the following components:

- 110 inverters
- NEXTracker[™] racking system
- (12,129) 78-module rows
- (3,151) 52-module rows
- 187,166 Foundation Posts (Array Bearing, Motor, Inverter Skid)
- Access roads to the arrays 16' wide of gravel base, with curved sections being up to 45' wide
- 152,102 linear feet 6'-high array security fence
- 140,493 linear feet Medium voltage underground electrical collection cables
- 2 electrical collector substations (The substations may not be decommissioned with the rest of the Project if they are repurposed for future projects, but are included in the cost estimate.)
- 2 HVTL Lines totaling approximately 4.9 miles (The HVTLs may not be decommissioned with the rest of the Project if they are repurposed for future projects, but they are included in the costs estimate)

Note that the above lists of components and estimated quantity of each component is based upon the Project's preliminary design to date. Final design and construction of the Project may result in quantities that vary from the figures given above.

2.1 Decommissioning

Upon the end of the Project's life or the expiration of the site permit, the decommissioning and siterestoration process detailed in this plan would begin and be completed within approximately 40 weeks; see section 3.3 below for schedule information. The following general decommissioning and site restoration process would occur:

- Removing the solar arrays, transformers, electrical collection system, fencing, lighting, and substations.
- Removal of below-ground electrical cables to a depth of four feet (cables buried below four feet may be left in place).
- Removal of buildings and ancillary equipment to a depth of four feet.

- Removal of surface road material and restoration of the roads to substantially the same physical condition that existed immediately before construction. If the Solar Project is decommissioned and the land sold to a new owner, Xcel Energy would retain any access roads the new landowner requested be retained.
- Grading, adding or re-spreading topsoil, and reseeding according to the Natural Resources Conservation Service (NRCS) technical guide recommendations and other agency recommendations, areas disturbed by the construction of the facility or decommissioning activities, grading and soil disturbance activities will be kept to the minimum necessary to restore areas where topsoil was stripped in construction, topsoil in decommissioned roads and compaction only in areas that were compacted during decommissioning activities so that the benefits to the soil that were achieved over the life of the Project are not counteracted by decommissioning.
- Standard decommissioning practices would be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements, and restoration.

2.2 Trigger Resulting in Decommissioning

Decommissioning of solar panels must occur upon the expiration of the Site Permit, without renewal of said permit.

2.3 Schedule

The decommissioning process will likely take place over an approximately 40 week period. Depending on the timing and the requirements for revegetation, it's possible revegetation monitoring and maintenance efforts could extend into the next year after all other decommissioning tasks are complete. This timeline is based on the assumption that the removal of the modules, racking system, and pile foundations will take approximately the same duration to remove them as it did to install them for each individual item, and that the crew numbers can be increased as the schedule requires. Approximately three (3) weeks are needed for site mobilization and demobilization for decommissioning. It is also assumed that no decommissioning work will be performed during a portion of winter months or during times of inclement weather (high winds, heavy rains).

The representative Project schedule, shown below, is an estimated timeline of the

decommissioning activities for each phase of demolition, West and East, which can be done concurrently. This schedule is subject to change based on actual business conditions, labor availability, field conditions, weather conditions, and any unforeseen conditions.



Representative Project Schedule

*Some tasks may be completed concurrently depending upon scheduling and methods of the contractor.

**Schedule shows duration total in calendar days and is subject to delays/changes based on weather conditions, winter and unforeseen conditions.

2.4 **Project Facilities Removal and Site Restoration**

Prior to decommissioning, participating landowners will be consulted to determine their desired future land use across the site. Some Project infrastructure such as access roads and collection lines may be left in place if agreed to by the landowner. The removal and disposal details of the Project components are found below.

- Modules: Modules inspected for physical damage, tested for functionality, and removed from racking. Functioning modules packed and stored for reuse (functioning modules may produce power for another 25 years or more). Non-functioning modules packaged and sent to the manufacturer or a third party for recycling or other appropriate disposal method. Modules sent for disposal will be sampled and tested using accepted test methods to determine whether they must be managed as a RCRA Hazardous Waste;
- Racking: Racking uninstalled, processed (cut) to size for recycling, and sent to metal recycling facility;

- Steel Pier Foundations: Steel piles will be removed to a minimum depth of 4 feet and may be removed to full depth, processed to size for recycling, and sent to a recycling facility;
- Wire: Below-ground wire may be abandoned in place at depths greater than lease requirements for removal (four feet). All other wire will be removed and packaged for recycling or disposal; overhead wire for the gen-tie lines is included for removal in the cost estimate for the decommissioning of this project. It is possible that the overhead lines will be reused, like the substations, for future projects, and will remain in place after the other project facilities are decommissioned.
- Conduit: Above-ground conduit, if any, will be disassembled onsite and sent to recycling facility;
- Junction boxes, combiner boxes, external disconnect boxes, etc.: Will be sent to electronics recycler;
- Inverter/Transformer: Will be shipped to a transformer recycler;
- Concrete pad(s): Will be broken into pieces onsite and sent to a landfill for disposal.
- Fence: Fence will be sent to metal recycling facility and wooden posts for the agricultural fence will be properly disposed;
- Substations: This cost estimate includes the decommissioning of the substations, but the substations may remain in service and be used for future projects. Main Power Transformers will be drained of oil, disassembled, and the metals will shipped to a transformer recycling facility; the oil will be sold for recycling; the capacitors, switchgear, buses and other electrical equipment will be disassembled and shipped to an electronics recycler; the structural steel frames will be disassembled and taken to a metal recycler; the concrete foundations will be broken into pieces onsite disposed of at a landfill; the crushed rock surfacing and aggregate base will be removed and transported to a landfill where it can be disposed of as "daily cover"; and
- Computers, monitors, hard drives, and other components: Sent to electronics recycler.
 Functioning parts can be reused, but the salvage or resale value is not included in the cost estimate.

2.4.1 Solar Array

Decommissioning of the solar array consists of dismantling, processing, and transporting solar components off the Project site. The dismantling will entail disassembly of the array into the component parts: modules, racking components, foundation pile, and inverter skids. Cutting and sorting of scrap material from the array components will proceed in parallel. This processing includes draining fluid (panels contain no fluids, specific to transformers), cutting, disconnecting, and dismantling the equipment. Selling usable equipment for reuse is the highest priority, followed by recycling, then disposing. With the exception of the solar modules, during the early life of the project, no resale value of the components has been calculated. This assumption is conservative for the purpose of determining the amount of financial security that will be required.

Considering the abundance of raw materials that are built into the entire array, it is assumed that most of the components can be sold for scrap metal and recycled. The racking components, foundation pile, cables, and other electrical equipment are considered scrap metal, and will be sorted by material type (e.g., steel, copper, and aluminum). The modules are also able to be recycled and sold as salvageable items. The remaining unsalvageable materials will be processed and transported to local landfills. All modules will be removed from the site via semi-trucks.

2.4.2 Electrical Collection System

The collector system is installed using AC and DC collection system cables. The AC collection cables will consist of medium voltage cable consisting of three cables buried per below-ground line with a copper-clad steel conductor. The DC system cables are anticipated to consist of a positive and negative phase in each cable tray (CAB) or buried below-ground line with a copper clad steel conductor. These cable configurations are identified as a circuit, and are used to identify the circuit cable length. The cables consist of an aluminum conductor, polyethylene insulation, a copper metallic shield, and an outer polymer jacket.

As part of decommissioning, underground cables will be removed from the ground to the depth of four feet. Underground cables deeper than four feet may be left in place. DC cables, if installed above-ground, will be removed from the CAB system, unburied at the combiner and inverter locations and either re-spooled or cut into recyclable sections. The cost estimate herein

conservatively assumes that all cable will be removed. The removal includes reeling cable for transportation off of the site.

2.4.3 Roads

The Project estimates that the total length of Project roads will be about 178,264 linear feet. They will approximately be 16 feet wide. The access road width flares at intersections with connecting public roads and internal intersections. The construction of the access roads will include the surfacing of an aggregate base. Some roads may consist of a cement stabilized subgrade, which will be comprised of native soil mixed with cement. On this subgrade, aggregate surfacing is applied. It is possible that in some locations geotextile fabric may be placed on the subgrade before the aggregate surfacing is applied to the road.

Following decommissioning of the portions of the Project served by each access road (power block), access road decommissioning will start with the removal and transportation of the aggregate materials to a nearby site. Usually clean aggregate can be disposed of at a landfill for at no cost, where it is used as "daily cover". The local townships may accept this material without processing to use on their local roads. The access road removal will proceed from the onsite area to township/county roads to limit tracking and provide consistent access during removal activities.

2.4.4 Substation

Removal of Project Substations is included in the decommissioning cost estimate. The electrical collection substation decommissioning requires the deconstruction of the control house/switchgear, main power transformers, breakers, bus work, ground grid, steel supports, foundations, and yard rock base as well as reclamation of the substation site.

Additionally, any permanent storm water treatment facilities will be removed. Topsoil will be reapplied to match surrounding grade and maintain existing drainage patterns. The topsoil will be de-compacted and tilled to a farmable condition or re-vegetated depending upon the location and land use at the time of decommissioning.

The cost estimate is based on the assumption that the equipment is scrapped and recycled,

including the main power transformers, and the remaining materials disposed of. The substation's steel, copper ground grid, aluminum bus, and copper wire can also be salvaged for scrap and recycled.

2.4.5 O&M Building

No O&M building is necessary for the Project as the Project will utilize existing infrastructure to service the facility.

2.5 Waste Disposal

It is assumed that the materials will be sold as scrap and recycled, or disposed of rather than be sold for re-use in another location. It has also been assumed that the scrap materials will be transported off-site to recycling facilities, salvage yards, or a landfill. The following landfills and salvaged material yards have been identified near the Project.

Landfills

• Vonco II Waste Management Campus - 15301 Sherburne Ave, Becker, MN 56308, approximately 8 miles from the Project site

Salvage Yards (metals)

• EMR Northern Metal Recycling- 12432 Energy Drive, Becker, MN 55308, approximately 3 miles from the Project site

These particular facilities may not be operating at the time of decommissioning, but expect facilities in the area will be. When the decommissioning plan is updated, the locations of facilities with the required certifications and scale to process the materials will be identified. Modules sent for disposal will be sampled and tested using accepted test methods to determine whether they must be managed as a RCRA Hazardous Waste.

2.6 Site Restoration

All rutted land will be restored to a condition as close as practicable to its original condition. All unexcavated areas compacted by equipment and activity during the decommissioning work will be de-compacted to a depth as needed to ensure proper density of topsoil consistent and compatible with the surrounding area and land use. Two passes for decompaction will be made across any planned agricultural land. To the extent practicable, all ripping and disking will be done at a time when the soil is dry enough for normal tillage operations to occur.

Any cement-stabilized subgrade material will be processed in place by adding topsoil, fertilizer, and other required additives determined and dictated by the soil sample test results. The subgrade cement-stabilized layer will be returned to a mix of native soils. Following removal of the road aggregate and processing of any cement-stabilized subgrade, the road area will be decompacted and graded and topsoil will be reapplied to the disturbed area. The elevations of the finished area will match the surrounding grade to maintain existing drainage patterns. The topsoil will be de-compacted and tilled to a farmable condition or re-vegetated depending upon the location and land use at the time of decommissioning.

During any excavation and backfill, soil segregation will occur to ensure that topsoil and subsoil is maintained. If necessary, soil additives will supplement local soils to ensure continued soil productivity. Excavated areas will be backfilled and compacted, dependent on soil conditions. Areas will likely be tilled as a part of the greater area of disturbance per the specifications in the paragraph above following completion of excavation activities.

The following rock removal procedures only pertain to rocks found in the uppermost 12 inches of soil which were exposed or brought to the site as a result of decommissioning:

- A. Before replacing any topsoil, every effort will be taken to remove all rocks greater than 5 inches in any dimension.
- B. As topsoil is replaced, all rocks greater than 5 inches in any dimension will be removed from the topsoil.
- C. If trenching, blasting, or boring operations are required through rocky terrain, precautions will be taken to minimize the potential for oversized rocks to become interspersed with adjacent soil material.

Following soil preparation and decompaction, areas not to returned to agricultural use or another use specified by participating landowner will be seeded and revegetated to their pre-Project condition. These areas will be monitored until acceptable vegetated conditions, per permit requirements, are obtained.

2.7 Erosion and Sediment Control

During decommissioning of the Project, erosion and sediment control Best Management Practices (BMPs) will be implemented, if necessary, to minimize potential for sedimentation of surface waters and waters of the state. BMPs will meet the current Minnesota Pollution Control Agency requirements for stormwater permitting. Given that the construction and operation of the project includes detailed erosion and sediment control measures, it is not expected that additional measures will be necessary during decommissioning, unless new ground disturbance is undertaken. Potential BMPs are described below.

<u>Disturbed Area Stabilization</u>: All disturbed areas, unless being returned to agricultural use, and without permanent impermeable or gravel surfaces will be vegetated for final stabilization. All slopes steeper than 3H:1V will be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tack or netting and pinning on slopes, as practical. All slopes 3H:1V or flatter will be restored by seeding and mulching.

<u>Project Phasing/Design BMP</u>: Project phasing will minimize exposure of soils at any given time and allow for concurrent stabilization of soils following decommissioning activities.

<u>Silt Fence BMP or Fiber Logs:</u> Silt fences or fiber logs will be used as needed for perimeter controls down gradient from exposed soils during decommissioning to capture suspended sediment particles on site to the extent possible. The standard silt fence or fiber logs will also be used in smaller watershed areas where the contributing flow areas are typically less than ¼ acre of drainage per 100 feet of standard silt fence or fiber logs. The standard silt fence or fiber logs will also be used for stockpiles which are at least 8 feet high and have 3:1 or steeper side slopes, if the stockpiles are not already contained within perimeter controls. The silt fence or fiber logs should provide adequate protection if placed 3 – 5 feet from the toe of the stockpile. The standard silt fence or fiber logs will not be used in areas of highly erodible soils.

<u>Rock Entrance/Exit Tracking Control BMP:</u> Rock construction entrances will be installed where access to a decommissioning area is needed to minimize sediment tracking and may be used at

the access roads, substation, and elsewhere.

<u>Slope Protection</u>: Erosion-control blankets (North American Green SC150BN or equivalent) may be used as temporary stabilization for areas of steep slopes (steeper than 3H:1V), where needed or practical. Seed will be applied in these areas with the blanket for temporary and/or permanent vegetative growth as necessary. Placed stone may be installed in cleared areas where slopes are a maximum 1H:1V. Slopes less than 3H:1V will be stabilized by seeding and mulching the exposed soils.

<u>Surface Roughening:</u> Surface roughening or track walking is the act of running a dozer or other heavy tracked equipment perpendicular to the grade of disturbed slopes with a grade of 3:1 and steeper with a continuous length of 75 feet or greater. The tracks will provide a rough surface to decrease erosion potential during an interim period until a smooth grade, seed, and erosion-control blanket can be applied.

<u>Temporary Mulch Cover and Seed BMP</u>: Temporary mulch cover (hay mulch or equivalent) will be applied in some instances to provide temporary erosion protection of exposed soil areas with slopes flatter than or equal to 3:1. Seed will be applied with the mulch for temporary and/or permanent vegetative growth as necessary. Temporary mulch is used for all soil types where slopes are flatter than 3:1 and no significant concentrated flows are present. The mulch is disc-anchored to the soil to keep it from blowing away.

The mulch inhibits the ability of rain drops to dislodge soil and subsequently carry soil away during sheet drainage. In sandy soils, the use of tackifier may be used to assist the disc anchoring if the mulch cannot be secured.

<u>Soil Stockpiles:</u> Topsoil and base materials that are stripped from the site will be stockpiled on site. Stockpiles will be located in areas that will not interfere with decommissioning, and will be located away from roads, site drainage routes, or other areas of concentrated flow. Stockpiles will also be located away from wetlands and surface waters. Perimeter controls such as silt fence will be installed around all stockpiles if not placed within existing silt fences or other sediment control where the potential exists for material to be eroded and transported to sensitive natural resources. Soils that are stockpiled for longer durations will be

temporarily seeded and mulched, or stabilized with bonded fiber polymer emulsion (DirtGlue™ or equal).

<u>Permanent Seed and Temporary Mulch and/or Erosion Control Blanket BMP</u>: In non-agricultural areas of final grade, permanent seed will be applied to promote vegetative cover for permanent erosion control.

<u>Removal of Ditch Crossing BMP</u>: Ditch crossing locations may be removed. Perimeter controls (such as silt fence) will be used at crossing locations to minimize runoff from exposed soils and removal activities. Crossing removal will be done during dry conditions, or if the streams are wet/flowing, alternative BMPs such as a temporary dam and bypass pump to remove the crossing in dry conditions will be implemented.

<u>Dewatering</u>: If dewatering is needed, a temporary pump and rock base may be used to dewater an area of accumulated water. If a rock base cannot be used, pump intake will be elevated to draw water from the top of the water column to limit sedimentation. Energy dissipation (riprap) will be applied to the discharge area of the pump hose. Water will be discharged to a large flat vegetated area for filtration/infiltration prior to flowing into receiving waters of conveyances/ditches. If discharge water is turbid, dewatering bags, temporary traps, and rock weepers or other adequate BMPs will be used to control sediment discharge.

<u>Diversion Berms/Swales/Ditches:</u> It may be necessary to direct diverted flow toward temporary settling basins via berms, swales, or ditches. If these are deemed necessary for decommissioning activities, they must be stabilized by installing temporary mulch and seeding, erosion control blankets, or riprap to protect the channel from erosive forces.

<u>Stone Check Dams</u>: It may be necessary to install temporary check dams within swales or ditches that may convey stormwater from areas disturbed by decommissioning activities. Stone check dams are effective for velocity control, sediment control, and to augment temporary stabilization of channels. In these situations, filter fabric can be utilized to help filter the flow, minimize the scour of the soil under the rock, and facilitate removal of the check dams once permanent stabilization is achieved. Dam height will be at least 2 feet and spacing depends upon slope; the placement of the subsequent rock check dams will have the top elevation at the same elevation as the bottom of the previous (up-slope) rock check.

<u>Hay Bale Check Dams</u>: Hay bale check dams may be used for velocity control within swales of the project to slow the water runoff within the drainage channels/swales. The bales will be 3 feet in length and anchored into the soil. The midpoint elevation of the top of the bale (i.e. ponding height) must be lower than the terminal end points of the bale where the bale meets the ground elevation to prohibit water from flowing around the bales, causing erosion and scour. If the bales cannot be applied properly in the field, the use of rock checks as a replacement is recommended.

<u>Temporary Sedimentation Basins</u>: Sedimentation basins serve to remove sediment from runoff from disturbed areas of the site. The basins allow runoff to be detained long enough to allow the majority of the sediment to settle out prior to discharge. The location and size of temporary sedimentation basins, if any are necessary, will be verified in accordance with NPDES permit requirements at the time of decommissioning.

2.8 Permitting

All decommissioning and restoration activities will comply with federal and state permit requirements at the time of decommissioning. Decommissioning activity that will disturb more than one acre of soil may trigger the NPDES Construction General Permit process. A Storm Water Pollution Prevention Plan ("SWPPP") will be developed prior to filing a Notice of Intent. Permit(s), if required, shall be applied for and received prior to commencing with decommissioning activity.

If permanent crossings are not removed and no discharge of dredged or fill material takes place, neither a Section 404 permit from the U.S. Army Corps of Engineers (COE) nor a Wetland Conservation Act ("WCA") permit will not be necessary for decommissioning. The Army Corps of Engineers and the local governmental unit implementing the WCA will be notified in advance of the decommissioning work to verify the need for Section 404 or WCA permitting. If Section 404 permitting is required, a state Water Quality Certification permit will

be required as well.

State of Minnesota air quality rules will also be reviewed at the time the work is scheduled to determine if an air quality permit will be required. Should any interim permits become needed, they will be closed out with documentation of compliance after decommissioning.

2.9 Estimated Decommissioning Costs

To estimate the Project's decommissioning costs and salvage revenues, Westwood utilized cost data from RS Means to obtain an industry-standard, November 2020 Midwest Costs Price for scrap metals, landfills, salvage yards, and recycling facilities in 563 Sherburne County, MN, a proxy for the Project area. The salvage revenue in the decommissioning cost estimate is based upon the scrap value of salvaged materials including material salvaged from the solar array, inverter, transformers, and other equipment rather than the sale and reuse of the equipment. Future salvage revenue from resale or reuse of all array equipment is an unknown. The estimated decommissioning costs and salvage revenues are expressed in present-day dollars and do not account for inflation or other future changes in costs or salvage values.

For the purposes of the estimate, \$187.50 per metric ton was used as the value of scrap steel, \$0.89 per pound was used for the value of aluminum wire, \$1.57 per pound was used for the value of copper wire, and \$0.35 per pound was used for the value of copper transformer scrap; these values were obtained from www.scrapmonster.com in November 2020.

3.0 Conclusion and Summary of Decommissioning Costs

The estimated cost to decommission the Project and restore the Project site is a surplus of \$13,100,000 in present-day dollars. This total was determined by subtracting the estimated salvage revenue of \$48,300,000 from the estimated decommissioning and site restoration cost of \$35,200,000. Division of this estimated cost by the anticipated 460 megawatts ("MW") in the project results in a surplus of approximately \$28,400 per MW.

The salvage revenue in the decommissioning cost estimate is based upon the scrap value of salvaged materials, including material salvaged from the inverters, transformers, and other equipment, rather than the sale and reuse of the equipment in other solar farm projects or other installations. The estimated decommissioning costs and salvage revenues are expressed

in present day dollars and do not account for inflation or other, future changes in costs or salvage values. Beginning in year 14 of operation, the Decommissioning Plan shall be reviewed every 5 years to make changes to estimated costs, removal methods, or disposal methods as applicable based on new or updated information.

Beginning in year fifteen of the Project's operational life, Xcel Energy will either create a reserve fund, enter into a surety bond agreement, create an escrow account, or provide another form of security that will ultimately fund decommissioning and site restoration costs after Project operations cease, to the extent that the salvage value does not cover decommissioning costs. The exact amount to be allocated for decommissioning will be determined by a third-party study in year fourteen that will assess the difference between estimated decommissioning costs and the salvage value. The financial assurance shall be kept in place until such time as the decommissioning work has been completed.