Decommissioning Plan
Lost City Solar Project
Muhlenberg County, Kentucky

Prepared for:
Lost City Renewables LLC

Prepared by:
Stantec Consulting Services Inc.
1165 Scheuring Road
De Pere, Wisconsin 54115

Project No:2057322000

January 27, 2025

The conclusions in the Report titled Decommissioning Plan are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from Lost City Renewables LLC (Lost City) and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided by the Client to applicable authorities having jurisdiction and to other third parties in connection with the project, Stantec disclaims any legal duty based upon warranty, reliance or any other theory to any third party, and will not be liable to such third party for any damages or losses of any kind that may result.

Hannah Gilgus

Hannah Gilgus
Environmental Planner

Mike Gerhart

Michael Gerhart, PE (TX)
Civil Engineer

Matthew A. Clementi, PE (IL, WI)
Senior Civil Engineer

Table of Contents

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

Lost City Renewables LLC (Lost City) is proposing to construct and operate the Lost City Solar Project (Project) within Muhlenberg County, Kentucky. The Project footprint encompasses approximately 1,143 acres within perimeter fencing, out of a 1,413-acre Project area. The maximum generating capacity of the Project will be up to 250 megawatts, alternating current $(MW)_{[AC]}$.

This Decommissioning Plan (Plan) provides a description of the decommissioning and restoration phase of the Project. Start-of-construction is planned for June 2026, with anticipated Commercial Operation Date (COD) in June 2029. Major components of the Project include solar modules, tracking system, inverter/transformer stations, access and internal roads, perimeter fencing, electrical collection system and substation as shown in Figure 1.

This Plan includes an overview of the primary decommissioning Project activities, including the dismantling and removal of facilities, and subsequent restoration of land. A summary of estimated costs and revenues associated with decommissioning the Project are included in Section 4.0. The summary statistics and estimates provided are based on a 250-$MW_{[AC]}$ Project array design. This Plan complies with requirements stated within the 2023 Kentucky Revised Statutes (KRS) 278.706(2)(m). To the extent applicable laws and regulations in the future conflict with this Decommissioning Plan, such laws and regulations may apply in lieu of the applicable portion of this Plan.

1.1 SOLAR FARM COMPONENTS

The main components of the Project include:

- Solar modules
- Tracking system and steel piles
- Inverter/transformer stations
- Electrical cabling and conduits
- Site access and internal roads
- Perimeter fencing
- Project substation and overhead transmission tie-in line

1.2 TRIGGERING EVENTS AND EXPECTED LIFETIME OF PROJECT

Project decommissioning may be triggered by events such as the end of a power purchase agreement or when the Project reaches the end of its operational life. The decommissioning phase will comply with requirements of KRS, or applicable law at the time of decommissioning.

If properly maintained, the expected lifetime of a utility-scale solar project is approximately 30 years with an opportunity to extend the life of the project with equipment replacement and repowering. Depending on market conditions and project viability, solar arrays may be retrofitted with updated components (e.g., modules, racking system, etc.) to extend the life of a project. In the event that the facility is not retrofitted, or at the end of the Project's useful life, the solar arrays and associated components will be

decommissioned and removed from the Project site. During the Project's useful life, solar modules that are replaced or discarded will be removed from the site within 90 days, unless an extension has been granted by the secretary of the Kentucky Energy and Environment Cabinet ("Secretary").

The value of the individual components of the solar facility will vary with time. In general, the highest component value would be expected at the time of construction with declining value over the life of the Project. Over most of the life of the Project, components such as the solar modules could be sold in the wholesale market for reuse or refurbishment. As efficiency and power production of the modules decrease due to aging and/or weathering, the resale value will decline accordingly. Secondary markets for used solar components include other utility scale solar facilities with similar designs that may require replacement equipment due to damage or normal wear over time; or other buyers (e.g., developers, consumers) that are willing to accept a slightly lower power output in return for a significantly lower price point when compared to new equipment.

Components of the facility that have resale value may be sold in the wholesale market. Components with no wholesale value will be salvaged and sold as scrap for recycling or disposed of at an approved offsite licensed solid waste disposal facility. Decommissioning activities will include removal of the solar arrays and associated components as described in Section 2.

1.3 DECOMMISSIONING SEQUENCE

Decommissioning activities will commence within twelve (12) months of the Project ceasing to produce electricity for sale unless the deadline has been extended by the Secretary. Lost City will be the responsible party. Monitoring and site restoration may extend beyond this period to ensure successful revegetation and rehabilitation. The anticipated sequence of decommissioning and removal is described below; however, overlap of activities is expected.

- Reinforce access roads, if needed, and prepare site for component removal
- Install erosion control materials and other best management practices (BMPs) to protect sensitive resources and control erosion during decommissioning activities.
- De-energize solar arrays.
- Dismantle and remove modules and above-ground wiring.
- Remove tracking equipment and piles.
- Remove inverter/transformer stations along with support system and foundation pads.
- Remove above and below-ground electrical cables and conduits
- Remove perimeter fence
- Remove the substation and overhead transmission line
- Remove access and internal roads and grade site (if required).
- De-compact subsoils as needed, restore, and revegetate disturbed land to a substantially similar state as it was prior to commencement of Project construction

2.0 PROJECT COMPONENTS AND DECOMMISSIONING ACTIVITIES

The Project components and decommissioning activities are further described within this section.

2.1 OVERVIEW OF SOLAR FACILITY SYSTEM

Lost City anticipates utilizing approximately 414,804 solar modules, with a total nameplate generating capacity of approximately 300 MW direct current $_{[DC]}$ converting to approximately 250 $MW_{[AC]}$ on the 1,143 acres of land within the perimeter fence. Statistics and cost estimates provided in this Plan are based on Trina bifacial modules, although the final module selection may vary prior to construction. The selection of different modules is not anticipated to materially alter the conclusions of this Plan.

Foundations, steel piles, and electric cabling and conduit installed 36 inches or less below the soil surface will be removed. Access roads and fence may be left in place if requested and/or agreed to by the landowner; however, for purposes of this assessment, all access roads are assumed to be removed. Lost City will communicate with the appropriate local agency to coordinate the repair of damaged or modified public roads during the decommissioning and reclamation process.

Estimated quantities of materials to be removed and sold, salvaged, or disposed of are included in this section. Many of the materials described have salvage value, although there are some components that will likely have none at the time of decommissioning. Removed materials that cannot be sold on the resale market will be salvaged or recycled to the extent possible. All other non-recyclable waste materials will be disposed of in accordance with state and federal law in a licensed solid waste facility. Table 1 presents a summary of the primary components of the Project included in this decommissioning plan.

Table 1 Primary Components of Solar Farm to be Decommissioned

Component	Quantity	Unit of Measure
Solar modules (approximate)	414,804	Each
Tracking system (equivalent full trackers)	5,318	Tracker
Steel piles	64,572	Each
Inverter stations with concrete pad foundations	63	Each
Perimeter fencing	51,895	Linear Foot
Access roads (approximate)	99,835	Linear Foot
Subsurface electrical cables and conduits	133,320	Linear Foot
Project substation	1	Each
Overhead tie-in transmission line	12	Linear Mile

2.2 SOLAR MODULES

Lost City intends to use bifacial modules from Trina Vertex for the Project. Statistics and estimates provided in this Plan are based on the Vertex N 710-watt bifacial module. The module assembly (with frame) will have a total weight of approximately 84 pounds and will be approximately 93.9 inches by 51.3 inches in

size. The modules are mainly comprised of non-metallic materials such as silicon, mono-crystalline glass, plastic, and epoxies, with an anodized aluminum frame.

At the time of decommissioning, module components in working condition may be refurbished and sold in a secondary market yielding greater revenue than selling as salvage material. The estimates in this report have been calculated using a conservative approach, considering revenue from salvage only, rather than resale of Project components.

2.3 TRACKING SYSTEM AND SUPPORT

The solar modules will be mounted on a single-axis, one-in-portrait tracking system, such as the Nevados tracker by all Terrain Tracker or similar system. Each full, three-string tracker will be approximately 340 feet in length and will support approximately 78 solar modules. Smaller trackers will be employed at the edges of the layout to efficiently utilize available space. The tracking system is mainly comprised of galvanized and stainless steel; steel piles that support the system are comprised of structural steel.

The solar arrays will be deactivated from the surrounding electrical system and made safe for disassembly. Tracker lubricants will be removed and properly disposed of or recycled according to regulations current at the time of decommissioning. Electronic components, and internal electrical wiring will be removed and salvaged. The steel piles will be completely removed.

The supports, tracking system, and piles contain salvageable materials which can be sold to provide revenue to offset the decommissioning costs.

2.4 INVERTER/TRANSFOMER STATIONS

The inverter and transformer stations are located within the array and will sit on piers with steel piles. The inverters and transformers will be deactivated, disassembled, and removed. Depending on condition, the equipment may be sold for refurbishment and re-use. If not re-used, they will be salvaged or disposed of at an approved solid waste management facility. Oils and lubricants will be collected and disposed of at a licensed facility.

2.5 ELECTRICAL CABLING AND CONDUITS

The Project's underground electrical collection system will be placed at a depth of three feet (36 inches) or greater. Underground cabling will be removed in decommissioning, regardless of depth.

2.6 PROJECT SUBSTATION

Lost City will include one substation as part of the Project located near the southeast area of the site. The substation will contain within its perimeter, a gravel pad, power transformers and footings, an electrical control house, and concrete pads, as needed. The Project substation is considered "interconnection and other facilities" as described in KRS 278.706, and thus, may remain in place at the end of the project. Unless an alternative use for the Project substation is determined, the facilities will be decommissioned and the land restored to a substantially similar state as it was prior to commencement of project construction.

At decommissioning, the substation transformers may be sold for re-use or salvaged. Components of the substation that cannot be salvaged will be transported off-site for disposal at an approved waste management facility. Foundations and footings will be demolished and removed.

2.7 OVERHEAD GENERATION TIE-IN TRANSMISSION LINE

An approximately 12-mile-long overhead generation tie-in transmission line will be constructed between the Project substation and the Point of Interconnection (POI). Unless an alternate use for the tie-in transmission line is identified, the lines will be removed and decommissioned. Estimated costs are included in this plan.

2.8 PERIMETER FENCING AND ACCESS ROADS

The Project will include an approximately six-foot-high chain link fence surrounding the perimeter of the site. The fence will total approximately 51,895 feet (9.8 miles) in length. Near the end of the decommissioning process, the fence fabric, poles, and foundations will be removed from the Project site.

A network of access roads will allow access to solar facility equipment. The internal access roads will be composed of gravel approximately 16 feet wide and total approximately 99,835 feet (18.9 miles) in length. The access road lengths may change with final Project design. Landowners may choose to retain the access roads at completion of the Project; however, to be conservative, the decommissioning estimate assumes that all site access roads will be removed.

During installation of the Project, site access drives will be excavated to remove topsoil, the subgrade will be compacted, and eight inches of aggregate fill will be placed. Geogrid will be placed beneath the gravel for the length of each access road. The estimated quantity of these materials is provided in Table 2.

Table 2 Typical Access Road Construction Materials

Item	Quantity	Unit
Aggregate fill, 8-inch thick	39,441	Cubic Yards
Geogrid	177,484	Square Yards

Decommissioning activities include the removal and stockpiling of aggregate materials onsite for salvage preparation. It is conservatively assumed that all aggregate materials will be removed from the Project site and hauled up to five miles from the Project area. Underlying geogrid will also be removed during the decommissioning process. Geogrid that is easily separated from the aggregate during excavation will be disposed of in an approved solid waste disposal facility. Geogrid that remains with the aggregate will be sorted out at the processing site and properly disposed. Following removal of aggregate and geogrid, the access road areas will be de-compacted with deep ripper or chisel plow (ripped to 18 inches), backfilled with native subsoil and topsoil, as needed, and graded as necessary.

3.0 LAND USE AND ENVIRONMENT

3.1 LAND USE

The Project site topography is hilly with limited open areas for agriculture. The current land use is agriculture and open land. The Project area will be restored to a substantially similar state as it was prior to commencement of construction.

3.2 RESTORATION AND REVEGETATION

Areas disturbed by Project facilities and activities will be restored to a substantially similar state as it was prior to project construction. Portions of the site that have been excavated and backfilled will be graded and de-compacted as previously described. If present, drain tiles that have been damaged will be restored to pre-construction condition.

Topsoil will be placed on disturbed areas, as needed, and stabilized prior to returning the site to the landowner, allowing a land use similar to that prior to construction of the Project. Restored areas will be revegetated in consultation with the current landowner and in compliance with regulations in place at the time of decommissioning. Work will be completed to comply with the conditions agreed upon by Lost City and the Kentucky Public Service Commission regulations in affect at the time of decommissioning.

3.3 SURFACE WATER DRAINAGE AND CONTROL

The Project facilities are being sited to avoid impacts to wetlands, waterways, and drainage swales. The Project site conditions at the time of decommissioning and proposed Best Management Practices (BMPs) to protect surface water features will be detailed in a Project Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of decommissioning activities.

Surface water conditions at the Project site will be reassessed prior to the decommissioning phase. Lost City will obtain the required water quality permits from the Kentucky Energy and Environmental Cabinet (KEEC) and the U.S. Army Corp of Engineers (USACE), as needed, prior to the start of Project decommissioning. BMPs may include enhancement of construction entrances, temporary seeding, mulching (in non-agricultural areas), erosion control matting, silt fence, filter berms, and filter socks.

3.4 MAJOR EQUIPMENT REQUIRED FOR DECOMMISSIONING

The activities involved in decommissioning the Project include removal of the Project components: solar modules, racking, tracking system, foundations and piles, inverter and transformer stations, access roads, perimeter fencing, Project substation and the overhead transmission line. Restoration activities include back-filling of pile and foundation sites; de-compaction of subsoils; grading of surfaces per the landowner lease agreement of the disturbed areas.

Equipment required for the decommissioning activities is similar to what is needed to construct the solar facility and may include, but is not limited to: small cranes, low ground pressure (LGP) tracked excavators,

backhoes, LGP-tracked bulldozers and dump trucks, front-end loaders, deep rippers, water trucks, disc plows and tractors to restore subgrade conditions, along with ancillary equipment. Standard dump trucks may be used to transport material removed from the site to disposal facilities and to import clean fill and topsoil if necessary.

4.0 DECOMMISSIONING COST ESTIMATE SUMMARY

Expenses associated with decommissioning the Project will be dependent on labor costs at the time of decommissioning. For the purposes of this report, approximate 2024 market values were used to estimate labor expenses. Fluctuation and inflation of the labor costs were not factored into the estimates.

The value of the individual components of the solar facility will vary with time. In general, the highest component value would be expected at the time of construction with declining value over the life of the Project. Over most of the life of the Project, components such as the solar modules could be sold in the wholesale market for reuse or refurbishment. As efficiency and power production of the modules decrease due to aging and/or weathering, the resale value will decline accordingly. Secondary markets for used solar components include other utility scale solar facilities with similar designs that may require replacement equipment due to damage or normal wear over time; or other buyers (e.g., developers, consumers) that are willing to accept a slightly lower power output in return for a significantly lower price point when compared to new equipment.

4.1 DECOMMISSIONING EXPENSES

During decommissioning, the Project will incur costs associated with disposal of components not sold for salvage, including materials which will be disposed of at a licensed facility, as required. Decommissioning costs also include backfilling, grading, and restoration of the proposed Project site as described in Sections 2 and 3. Table 3 summarizes the estimated costs for activities associated with decommissioning the major components of the Project.

Table 3 Estimated Decommissioning Expenses

Activity	Unit	Quantity	Cost per Unit	Total
Overhead and management (includes estimated permitting required and public road repairs)	Lump Sum	1	$1,255,800	$1,255,800
Solar modules; disassembly and removal	Each	414,804	$5.15	$2,136,241
Tracking System disassembly and removal (equivalent full trackers)	Each	5,318	$685	$3,642,830
Steel pile/Trackers	Each	63,816	$12.70	$810,463
Steel pile/Inverters	Each	756	$53.80	$40,673
Transformers and inverters	Each	63	$1,890	$119,070
Access road excavation and removal	Lump Sum	1	$310,600	$310,600
Remove buried cable	Linear Feet	133,320	$0.91	$121,321
Perimeter fence removal (chain link)	Linear Feet	51,895	$4.60	$238,717

Activity	Unit	Quantity	Cost per Unit	Total
Topsoil replacement and rehabilitation of site	Lump Sum	1	$1,145,450	$1,145,450
Substation removal (two transformers)	Each	1	$495,000	$495,000
Overhead transmission line	Linear Mile	12	$291,500	$3,498,000
Total Estimated Decommissioning Cost				**$13,814,165**

4.2 POTENTIAL DECOMMISSIONING REVENUES

Revenue from decommissioning the Project will be realized through the sale of the solar facility components and construction materials. As previously described, the value of the decommissioned components will be higher in the early stages of the Project and decline over time. Resale of components such as solar modules is expected to be greater than salvage (i.e., scrap) value for most of the life of the Project, as described below. For purposes of this report, only estimated salvage values were considered in net revenue calculations, as this is the more conservative estimate strategy.

Modules and other solar plant components can be sold within a secondary market for re-use. A current sampling of reused solar modules indicates a wide range of pricing depending on age and condition ($0.10 to $0.30 per watt). Future pricing of solar modules is difficult to predict at this time, due to the relatively young age of the market, changes to solar module technology, and the ever-increasing product demand. A conservative estimation of the value of solar panels at $0.10 per watt would yield approximately $30,000,000. Increased costs of removal for resale versus salvage would be expected in order to preserve the integrity of the modules; however, the net revenue would be substantially higher than the estimated salvage value.

The resale value of components such as the trackers, may decline more quickly; however, the salvage value of the steel that makes up a large portion of the trackers is expected to stay at or above the value used in this report. The market value of steel and other materials fluctuates daily and has varied widely over the past five years. Salvage value estimates were based on an approximate five-year-average price of steel derived from sources including on-line recycling companies and United States Geological Survey (USGS) commodity summaries. The value of steel used in this report is $254 per metric ton, aluminum at $0.40 per pound, and glass at $0.05 per pound.

The main material of the tracking system and piles is assumed to be salvageable steel. Table 4 summarizes the potential salvage value for the solar array components and construction materials.

Table 4 - Estimated Decommissioning Revenues

Item	Unit of Measurement	Quantity per Unit	Salvage Price per Unit[1]	Total Salvage Price per Item[2]	Number of Items	Total
Modules - Silicon	Average Pounds per Module	2.10	$0.40	$0.840	414,804	$348,435
Modules - Aluminum	Average Pounds per Module	3.40	$0.40	$1.360	414,804	$564,133
Modules – Glass	Average Pounds per Module	31.70	$0.05	$1.585	414,804	$657,464
Tracking system and Posts	Metric tons per $MW_{[DC]}$	32.0	$254	$8,128	300	$2,438,400
Substation Components (steel and transformers)					1	$75,000
Total Potential Revenue (considering salvage values)						**$4,083,432**

*Revenue based on salvage value only. Revenue from used panels at $0.10 per watt could raise $30,000,000 as resale versus the estimated salvage revenue

4.3 DECOMMISSIONING COST SUMMARY

Table 5 provides a summary of the estimated cost to decommission the Project, using the information detailed in Sections 4.1 and 4.2. Estimates are based on 2024 prices, with no market fluctuations or inflation considered. Table 5 represents the total estimated net decommissioning cost including expected revenue.

Table 5 Net Decommissioning Cost Summary

Item	(Cost)/Revenue
Decommissioning Expenses	**($13,814,165)**
Potential Revenue – salvage value of modules and recoverable materials	**$4,083,432**
Net Decommissioning (Cost)/Revenue	**($9,730,733)**

Lost City Renewables LLC has indicated they will comply with the Kentucky Revised Statutes. Lost City will update the decommissioning estimate every five years during project life, and the financial security will be increased if the updated estimate yields a different net removal cost. The surety bond or other form of financial security will be one hundred (100) percent of the net decommissioning cost.

Lost City has indicated it will comply with requirements set forth in KRS 278.710(2)(m), including but not limited to the following:

- The bond or other similar security shall be provided by an insurance company or surety that shall at all times maintain at least an “Excellent” rating as measured by the AM Best rating agency or an investment grade credit rating by any national credit rating agency and, if available, shall be noncancelable by the provider or the customer until completion of the decommissioning plan or until a replacement bond is secured.

- The bond or other similar security shall provide that at least thirty (30) days prior to its cancellation or lapse, the surety shall notify the applicant, its successor or assign, each landowner, the KEEC, and the county or city in which the facility is located of the impending cancellation or lapse. The notice shall specify the reason for the cancellation or lapse and provide any of the parties, either jointly or separately, the opportunity to cure the cancellation or lapse prior to it becoming effective. The applicant, its successor, or its assign shall be responsible for all costs incurred by all parties to cure the cancellation or lapse of the bond. Each landowner, the KEEC or the Muhlenberg County Fiscal Court with the prior approval of each landowner, may make a demand on the bond and initiate and complete the decommissioning plan.

- Communicate with each affected landowner at the end of the merchant electric generating facility's useful life so that any requests of the landowner that are in addition to the minimum requirements set forth in this paragraph and in addition to any other requirements specified in the lease with the landowner may, in the sole discretion of the applicant or its successor or assign, be accommodated.

FIGURES

Figure 1 Proposed Project Layout