BEFORE THE OHIO POWER SITING BOARD

In The Matter of The Application of Scioto)	
Farms Solar Project, LLC, for a Certificate of)	
Environmental Compatibility and Public Need)	Casa Na. 21 969 EL DON
For The Construction of a Solar Powered)	Case No. 21-868-EL-BGN
Electric Generation Facility in Wayne)	
Township, Pickaway County, Ohio	

SCIOTO FARMS SOLAR PROJECT, LLC'S RESPONSE TO STAFF'S THIRD DATA REQUEST

Glare;

1. Exhibit M (Glare Hazard Analysis) refers to three types of glare and the Exhibit M Section 5.0 concludes that glare is not predicted for planes landing at Lindsey LS Airport, Ronshausen Airport, Ross County Airport or Pickaway County Airport in either landing direction available at each airport, or helicopters hovering above the helipads at Ohio Berger Hospital and Adena Regional Medical Center, nor for drivers of vehicles on the five roadways adjacent to the project area, and neither for 38 sensitive receptors with 25 ft viewing heights that are adjacent to the Project. Are there any minutes of "red" type predicted for the project?

<u>RESPONSE</u>: There are no minutes of "red" glare predicted for the Project for any of the resources evaluated as shown in the Glare Hazard Analysis (Exhibit M; Appendix B - ForgeSolar Reports). The ForgeSolar glare hazard analysis program does not list "red" glare if it is not predicted.

2. Please explain why the 25 ft viewing height for 38 sensitive receptors adjacent to the Project was chosen and is protective of surrounding neighbors?

<u>RESPONSE</u>: As noted in the Glare Hazard Analysis (Exhibit M), a viewing height of 25 feet was used for the sensitive receptors adjacent to the Project that were identified as residential structures as that simulates a two-story home. A two-story home has a greater potential for glare impacts than a one-story home which is why the two-story structure was evaluated as it was assumed to be the "worst case" scenario.

3. Please explain why the "Height above Ground" for Ebenhack Road and other roads within the project area is 5.00 ft?

<u>RESPONSE</u>: As noted in the Glare Hazard Analysis (Exhibit M), the 5 feet viewing height on roadways is assumed to represent the viewing height from cars and small

trucks that would be traveling along Ebenhack Road and other roads surrounding the Project.

4. Please explain why the "Height above Ground" for PV Arrays numbered 101 et. al is 20.00 ft?

<u>RESPONSE</u>: As noted in the Glare Hazard Analysis (Exhibit M), the assumed maximum height of the panels for the Project is estimated to be 20 feet, which is the height used for the PV Array analysis.

5. Where was the 25 ft. viewing height input into the ForgeSolar interactive software?

<u>RESPONSE</u>: As noted in the Glare Hazard Analysis (Exhibit M), the 25 ft viewing height was included as the receptor height for each of the sensitive receptors evaluated for the model (OP 3 - OP 40) as shown in the table "Discrete Observation Receptors" in Appendix B – ForgeSolar Reports.

6. The "Height above Ground" varies throughout Exhibit M from 5.00 ft, 20 ft, 25 ft, 386.41 ft, 500.02 ft, 649.67 ft, and 661.43 ft. Please explain what is meant by each of these seven heights.

RESPONSE: As stated in responses 2, 3, and 4, the 5 foot height represents the viewing height from cars and small trucks on the roadways adjacent to the Project and the 25 foot height represents views from a two-story house for sensitive receptors identified adjacent to the Project. The 20 foot height represents the maximum height of the solar modules. The remaining heights (386.41 feet, 500.02 feet, 649.67 feet, and 661.43 feet.) are the output from the 2-mile threshold at the airports analyzed for the Project. Planes generally land at an aviation standard of a "3 degree glide slope" so they descend at a rate of 3 degrees towards the threshold (runway). The ForgeSolar program draws the landing path 2 miles out from the threshold assuming the 3 degree glide slope. The land the plane flies over as it descends at the 3 degree slope is going to have different topography from place to place. In this case, the 2-mile threshold from the various airports has heights above ground of 386.41 feet, 500.02 feet, 649.67 feet, and 661.43 feet, as calculated by the ForgeSolar glare hazard analysis program.

Local jurisdiction(s);

7. Has Pickaway County or Wayne township, passed any ordinances or resolutions that limit the development of, or pertain to, utility scale solar development in the Scioto Farms solar project area? If so, please provide that ordinance or resolution.

<u>RESPONSE</u>: No ordinances or resolutions have been passed by Pickaway County or Wayne Township that would limit development of utility-scale solar development in the Scioto Farms Solar project area.

Project Summary;

8. Please provide a Figure that identifies proposed locations within the project area of any electric transmission line(s) and associated facilities with a design capacity of one hundred kilovolts or more that would be constructed by Scioto Farms Solar Project, LLC.

<u>RESPONSE</u>: The attached updated Figure 3-2 provides the location of the gen-tie line that is greater than 100 kV and will be constructed by the Applicant. The detailed design information for the gen-tie line will be provided as part of the Project's preconstruction filings.

Gen Tie Transmission Line;

9. Page 8 of the Application mentions an approximately 500-foot-long 138 kV gen-tie from the collector substation to the POI substation. Is Scioto Farms Solar Project, LLC is requesting approval of this component as part of this Application?

<u>RESPONSE</u>: Yes, Scioto Farms Solar Project, LLC is requesting approval of the 500-foot-long 138 kV gen-tie from the collector substation to the POI substation is a component as part of this Application.

- 10. If included in this Application, please provide the following information for the 500 feet long gen tie transmission line:
 - a. Tower designs, pole structures, conductor size and number per phase, and insulator arrangement.
 - b. Base and foundation design.
 - c. Cable type and size, where underground.
 - d. Other major equipment or special structures.

<u>RESPONSE</u>: Engineering design has not been completed for the 500-foot 138 kV gentie line. The detailed design information will be provided as part of the Project's preconstruction filings.

11. If included in this Application, please provide the shapefiles and depiction on Figure 3-2 (Project Site Layout Map) for the 500 feet long gen tie transmission line.

<u>RESPONSE</u>: The attached updated Figure 3-2 and shapefile provides the location of the approximately 500-foot 138 kV gen-tie line that will be constructed by the Applicant. The detailed design information for the gen-tie line will be provided as part of the Project's pre-construction filings.

12. Please provide the following information for the collector substation support structures/poles:

- a. Tower designs, pole structures, conductor size and number per phase, and insulator arrangement.
- b. Base and foundation design.
- c. Cable type and size, where underground.
- d. Other major equipment or special structures.

<u>RESPONSE</u>: Engineering design has not been completed for the Project's collector substation. The detailed design information will be provided as part of the Project's pre-construction filings.

POI Substation Switchyard;

13. Page 8 of the Application mentions a new AEP 138 kV three breaker ring bus switchyard substation to be built, owned, and operated by AEP. Please confirm that this component is not a part of this Application.

<u>RESPONSE</u>: The POI switchyard to be built, owned, and operated by AEP in NOT part of this Application.

Electromagnetic Fields;

14. Is the 138 kV gen-tie transmission line within one hundred feet of an occupied residence or institution? If yes, please provide the calculated electric and magnetic field strength levels at one meter above ground, under the conductors and at the edge of the right-of-way for (i) Winter normal conductor rating, (ii) Emergency line loading, and (iii) Normal maximum loading.

<u>RESPONSE</u>: There are no residences or institutions within 100 feet of the 138 kV gen-tie transmission line.

Aviation;

15. Exhibit N of the Application seems to indicate that the tallest structure would be approximately 100 feet tall. Please explain and confirm what the height of the tallest structure would be.

<u>RESPONSE</u>: For purposes of the Federal Aviation Administration Notice Criteria Tool (Exhibit N), the tallest component of the Project is expected to be the substation transformer. The substation design has not yet been completed and equipment has not yet been selected so a conservative estimate of 100 feet was used to reflect the maximum potential height of the transformer. The detailed substation design information will be provided as part of the Project's pre-construction filings.

Water Impacts;

16. Would Scioto Farms Solar Project, LLC install a water detention basin(s) as a post-construction storm water control measure? If so, please indicate the acreage of each basin and anticipated location.

<u>RESPONSE</u>: Final site design has not yet been completed so the acreage and location of post-construction storm water basins have not been determined. The detailed stormwater information will be provided as part of the Project's pre-construction filings.

Ohio Adm.Code 4906-4-6 (F)(5), Decommissioning;

17. The Preliminary Decommissioning Plan (Exhibit B) contains some of these elements, but not all. Please submit an updated decommissioning plan and total decommissioning cost estimate without regard to salvage value that includes: (a) a provision that the decommissioning financial assurance mechanism include a performance bond where the company is the principal, the insurance company is the surety, and the Ohio Power Siting Board is the oblige; (b) a timeline of up to for removal of all of the equipment; (c) a provision to monitor the site for at least one additional year to ensure successful revegetation and rehabilitation; (d) a provision where the performance bond is posted prior to the commencement of construction; (e) a provision that the performance bond is for the total decommissioning cost and excludes salvage value; (f) a provision to coordinate repair of public roads damaged or modified during the decommissioning and reclamation process; (g) a provision that the decommissioning plan be prepared by a professional engineer registered with the state board of registration for professional engineers and surveyors; and (h) a provision stating that the bond shall be recalculated every five years by an engineer retained by the Applicant.

<u>RESPONSE</u>: An updated Preliminary Decommissioning Plan is included as an attachment to this response. For convenience, both a clean copy and redlined copy showing the updates have been included. The updated Decommissioning Plan reflects conditions (a) – (h) listed above, with the exception of (b) and (c). The timeline for removal of the equipment is included in Section 2.0 of the Preliminary Decommissioning Plan. An exact timeline for removal of equipment is not feasible at this time. The Applicant will attempt to monitor the site and ensure revegetation has been completed if permitted by the landowner who retains control of the land following decommissioning of the Project. A final Decommissioning Plan, which will include a detailed timeline and monitoring plan, will be provided as part of the Project's pre-construction filings.

18. The proposed decommissioning plan (Exhibit B, Section 1.3) indicates that decommissioning activities are anticipated to be 12 to 18 months. Please explain when would all equipment be removed, and describe any activities that would extend after the equipment is removed.

<u>RESPONSE</u>: The timing is an estimate and could be influenced by circumstances beyond control of the Applicant, such as but not limited to weather or permit delays. While the timeline extends to 18 months, minimal activity is expected to go beyond 12 months and would involve minor tasks such as complying with landowner requests and restoration work such as seeding/planting which is limited to seasonal planting schedules. A final Decommissioning Plan will be will be provided as part of the Project's pre-construction filings.

19. The proposed decommissioning cost estimate in the preliminary decommissioning plan (Exhibit B, Table 3) doesn't seem to have a contingency amount or percentage, typically ten percent or less to cover unknown or unanticipated costs. Please explain will the final decommissioning cost estimate include a contingency amount or percentage?

<u>RESPONSE</u>: As this is a Preliminary Decommissioning Plan and the equipment counts and decommissioning costs will need to be updated prior to the start of construction, the current version does not include a contingency amount or percentage. A final Decommissioning Plan, which will include a contingency amount or percentage, will be provided as part of the Project's pre-construction filings

Attachments:

Updated Preliminary Decommissioning Plan (January, 2022) (clean and redline)

Updated Figure 3-2 (and shapefiles) for gen-tie location (January 2022)

Preliminary Decommissioning Plan – Scioto Farms Solar Project Pickaway County, Ohio



Prepared for: Scioto Farms Solar Project, LLC 500 Sansome Street, Suite 500 San Francisco, CA 94111

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Project No: 2028113286 December 06, 2021 Revised January 19, 2022

This document entitled Preliminary Decommissioning Plan – Scioto Farms Solar Project, Pickaway County, Ohio, was prepared by Stantec Consulting Services Inc. ("Stantec") for the use of Scioto Farms Solar Project, LLC (the "Client"), and the applicable regulatory agencies. Any reliance on this document by any other third party is strictly prohibited. The material in this document reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in this document are based on conditions and information existing at the time this document was published and do not take into account any subsequent changes.

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Figure 1 Proposed Project Layout



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1.0 INTRODUCTION

Scioto Farms Solar Project, LLC (Scioto Farms Solar), a wholly owned subsidiary of Naturgy Candela Devco, LLC, is proposing to construct and operate the Scioto Farms Solar Project (Project) in Wayne Township in Pickaway County, Ohio. The Project footprint encompasses approximately 750 acres of a 1,070-acre Project area. The maximum generating capacity of the Project will be up to 110 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 the fourth quarter of 2022, with a projected Commercial Operation Date in the fourth quarter of 2023. The Project will consist of the installation of the perimeter fencing; solar modules and associated trackers and steel piles; inverter stations; access and internal roads; electrical collection system and substation (Figure 1).

This Plan is applicable to the decommissioning/deconstruction and restoration phases of the Project. A summary of the components to be removed is provided in Section 1.1. Summaries of the estimated costs and potential salvage value associated with decommissioning the Project are provided in Section 4.

1.1 SOLAR FARM COMPONENTS

The main components of the Project include:

- Solar modules
- Tracking system and steel piles
- Inverter and transformer stations
- Electrical cabling and conduits
- Site access roads
- Meteorological stations
- Perimeter fencing
- Project substation and transmission tie-in line
- O & M building

1.2 TRIGGERING EVENTS AND EXPECTED LIFETIME OF PROJECT

Project decommissioning may be triggered by an event such as the end of the power purchase agreement with no plans for further marketing of power sales, abandonment, or when the Project reaches the end of its operational life. The Project will be considered to be abandoned if facilities are non-operational for a period of more than twelve (12) consecutive months. Project facilities will be removed from the site in accordance with a timeframe agreed upon by Scioto Farms Solar, the Ohio Power Siting Board Staff (OPSB), and the respective county administrators.



If properly maintained, the expected lifetime of the Project is approximately 40 years. At the end of the Project's useful life, the modules and associated components will be decommissioned and removed from the Project site.

Components of the solar 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 (landfill). Decommissioning activities will include removal of the arrays and associated components as listed in Section 1.1 and described in Section 2.

Scioto Farms Solar is committed, where possible, to recycling all solar panels at the end of Project life/ decommissioning.

1.3 DECOMMISSIONING SEQUENCE

Decommissioning activities will begin within twelve months of the Project ceasing operation and are anticipated to be completed in 12 to 18 months. Scioto Farms Solar 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 fencing and other best management practices (BMPs) to protect sensitive resources and control erosion during decommissioning activities
- De-energize solar arrays
- Dismantle panels and above ground wiring
- Remove tracking equipment and piles
- Remove inverter/transformer stations along with support system and foundation pads
- Remove electrical and communication cables and conduits
- Remove array fence
- Remove access and internal roads and grade site (if required)
- Remove substation and associated transmission tie-in line
- De-compact subsoils as needed, restore and revegetate disturbed land to preconstruction conditions to the extent practicable
- Remove O&M building, storage and parking.



2.0 PROJECT COMPONENTS AND DECOMMISSIONING ACTIVITIES

The solar facility components and decommissioning activities necessary to restore the Project area, as near as practicable, to pre-construction conditions are described within this section.

2.1 OVERVIEW OF SOLAR FACILITY SYSTEM

Scioto Farms Solar anticipates utilizing approximately 300,000 solar modules, with a total generating capacity of approximately 110.0 $MW_{[AC]}$. The Project footprint encompasses approximately 750 acres of the larger 1,070-acre Project area and will be bounded by perimeter fencing as shown on Figure 1 (preliminary design; subject to modification). The land within the perimeter fencing is predominantly agricultural land.

Foundations, steel piles, and electric cabling and conduit installed 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. Public roads damaged or modified during the decommissioning and reclamation process will be repaired upon completion of the decommissioning phase and in compliance with the Road Use & Maintenance Agreement that is expected to be implemented between Scioto Farms Solar and the Pickaway County Engineer. An estimated cost of public road repair is included in Project decommissioning overhead costs.

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. Other waste materials will be disposed of in accordance with state and federal law in an approved licensed solid waste facility.

Solar panels may have value in a resale market, depending on their condition at the end of the Project life. If the Project is decommissioned prior to the anticipated 40-year timeframe, the resale value of components will be substantially higher than at the end of the projected Project.

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)	300,000	Each
Tracking System (equivalent full trackers)	3,847	Tracker
Steel Piles	46,644	Each
Inverter Stations with Piers or Foundations	40	Each
Electrical Cables and Conduits	76,560	Linear Foot (estimated)
Perimeter Fencing	60,000	Linear Foot
Access Roads (approximate)	100,000	Linear Foot
Operations and Maintenance (O&M) Trailer	1	Each
Overhead Transmission Line	500	Linear foot
Project Substation	1	Each

2.2 SOLAR MODULES

Scioto Farms Solar intends to use a bifacial monocrystalline panel (520-550 watt) for the Project. Statistics and estimates provided in this Plan are based on Longi Solar LR5-72HBD bifacial module or a similar module. Each module assembly (with frame) will have a total weight of approximately 71.2 pounds (32.3 kg). The modules will be approximately 7.4 feet by 3.75 feet in size and are mainly comprised of non-metallic materials such as silicon, glass, composite film, 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. Scioto Farms Solar has not finalized a tracker to be used for the Project so this Plan assumed use of the Horizon by NEXTracker or similar system for the tracking units. Each full, three-string tracker will be approximately 39.6 meters (292 feet) in length and will support 78 solar modules. Smaller trackers, supporting 52 panels each, will be employed at the edges of the layout to efficiently utilize available space. The tracking system is mainly comprised of high-strength galvanized steel and anodized aluminum; steel piles that support the system are assumed to be comprised of galvanized steel.

The solar arrays will be deactivated from the surrounding electrical system and made safe for disassembly. Liquid wastes, including oils and hydraulic fluids 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 from the ground.

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

2.4 INVERTER STATIONS

The combined inverters/transformers (inverter stations) generally sit on small concrete footings or piers on steel piles within the array. The inverters will be deactivated, disassembled and removed. For purposes of this report, it is assumed that inverters will be constructed on concrete pads which will be completely removed during decommissioning. 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.

2.5 ELECTRICAL CABLING AND CONDUITS

The Project's underground electrical collection system will be placed at a depth of at least 18 inches below the ground surface. For purposes of this report, it is assumed that all subsurface cabling will be removed and salvaged. Recovery cost has been conservatively based on aluminum wiring; however, the salvage value of copper, if used, would be far greater.

2.6 PROJECT SUBSTATION

A Project substation will be part of the Project within an approximately two-acre footprint. The substation will contain within its perimeter, a gravel pad, power transformers and footings, an electrical control house, and concrete pads, as needed. The substation transformers may be sold for re-use or salvage. Components of the substation that cannot be salvaged will be transported off-site for disposal at an approved waste management facility. Although there is some potential that the Project substation may remain at the end of the Project life, an estimated decommissioning cost has been included in this Plan.

2.7 OVERHEAD GENERATION TIE-IN TRANSMISSION LINE

A short (approximately 500-foot) overhead transmission line will be constructed between the Project substation and a utility switchyard (the point of interconnection). Removal of the overhead generation tie-in transmission line is included in this Plan.

2.8 OPERATIONS AND MAINTENANCE BUILDING

One Project-specific O&M structure will be utilized for the Project. The structure will be a self-contained modular office of steel container-type construction. It will be installed on a gravel pad with connections to electrical and other necessary services. The structure will be completely removed from site during the decommissioning process.



2.9 PERIMETER FENCING AND ACCESS ROADS

The Project will include a security fence around the perimeter of the site and exclusionary area. The fence will total approximately 60,000 feet in length.

Access drives will provide direct access to the solar facility from local roads and along the inner perimeter of the arrays. Internal roads will be located within the array to allow access to the equipment. The site access drives will be approximately 20 – 24 feet in width and total approximately 1,660 feet (0.31 miles) in length. The internal roads will be approximately 12 – 16 feet in width and total approximately 98,340 feet (18.63 miles) in length. The access drive and internal road lengths may change with final Project design. To be conservative, the decommissioning estimate assumes that all site access drives will be removed, and internal roads will be decompacted.

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. The internal access roads will be comprised of compacted native soil. The estimated quantity of these materials is provided in Table 2.

Table 2 Typical Access Road Construction Materials

Item	Quantity	Unit
Aggregate fill, assumed 8-inch thick – to be removed	820	Cubic Yards
Compacted native soil (to be decompacted and left in place)	43,707	Cubic 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. Following removal of aggregate, 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 SOILS AND AGRICULTURAL LAND

Areas of the Project that were previously utilized for agricultural purposes will be restored to their pre-construction land use as dictated by landowner lease agreements. Soils compacted during de-construction activities will be de-compacted, as necessary. Land disturbed by Project facilities will be restored in such a way to be used in a reasonably similar manner to its original intended use as it existed prior to Project construction.

3.2 RESTORATION AND REVEGETATION

Areas of the Project that have been excavated and backfilled will be graded as previously described. If present, drain tiles that have been damaged will be restored to pre-construction condition. 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 Scioto Farms Solar and the OPSB or as directed by regulations in affect at the time of decommissioning.

Scioto Farms Solar will attempt to monitor the site and ensure revegetation has been completed if permitted by the landowner who retains control of the land following decommissioning of the Project.

3.3 SURFACE WATER DRAINAGE AND CONTROL

The proposed Project is predominantly located on agricultural land. The Project facilities are being sited to avoid impacts to wetlands and waterways. The existing Project site conditions and proposed BMPs to protect surface water features will be detailed in a Project Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of decommissioning construction activities.

Surface water conditions at the Project site will be reassessed prior to the decommissioning phase. Scioto Farms Solar will obtain the required water quality permits from the Ohio Environmental Protection Agency (OEPA) and the U.S. Army Corp of Engineers (USACE), if needed, before decommissioning of the Project. Decommissioning construction storm water permits will also be obtained and a SWPPP prepared describing the protection needed to reflect conditions present at the time of decommissioning. BMPs may include enhancement of construction entrances, temporary seeding, permanent 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 above and below-ground ground components of the Project, and restoration as described in Sections 2, 3.1 and 3.2.

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) track mounted excavators, backhoes, LGP track bulldozers, LGP off-road end-dump trucks, front-end loaders, deep rippers, water trucks, disc plows and tractors to restore subgrade conditions, and ancillary equipment. Standard dump trucks will be used to transport material removed from the site to disposal facilities.



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 2021 average 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 panels could be sold in the wholesale market for reuse or refurbishment. As efficiency and power production of the panels 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 RISK OVER THE LIFECYCLE OF A PROJECT

The probability of an event that would lead to abandonment or long-term interruption is extremely low during the first 15 to 20 years of the Project life. Accordingly, the risk of decommissioning the Project is extremely low during this time frame. The reasons why the risk to decommission the Project is extremely low in the early phases of the Project include, but are not limited to, the resale value of the facilities; power purchase agreements in place; manufacturer warranties on components; property damage and business interruption insurance coverage; and the value of renewable energy in general in the current market.

4.2 DECOMMISSIONING EXPENSES

Project decommissioning 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 Project site as described in Sections 2 and 3. Table 3 summarizes the estimates for activities associated with the major components of the Project.

Table 3 Estimated Decommissioning Expenses – 110 MW_{AC} Solar Array

Activity	Unit	Quantity	Cost per Unit	Total
Overhead and management (includes estimated permitting required and public road repairs)	Lump Sum	1	\$563,000	\$563,000



Activity	Unit	Quantity	Cost per Unit	Total
Solar modules; disassembly and removal	Each	300,000	\$4.00	\$1,200,000
Tracking System disassembly and removal (equivalent full trackers)	Each	3,847	\$620.00	\$2,385,140
Steel pile/post removal	Each	46,644	\$9.70	\$452,447
Remove buried AC cable	Linear Feet	76,560	\$0.40	\$30,624
Inverter removal with foundation	Each	40	\$1,700	\$68,000
Access road excavation and removal	Lump Sum	1	\$3,600	\$3,600
Perimeter fence removal	Linear Feet	60,000	\$2.80	\$168,000
Topsoil replacement for roads and rehabilitation of site	Lump Sum	1	\$1,006,900	\$1,006,900
Removed above ground transmission line and poles	Lump Sum	1	\$8,000	\$8,000
O&M Trailer	Each	1	\$5,000	\$5,000
Project substation	Each	1	\$300,000	\$300,000
Total estimated decommissioning cost				

4.3 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 panels is expected to be greater than salvage (i.e., scrap) value for most of the life of the Project.

Modules and other solar plant components may be sold within a secondary market or as salvage. A current sampling of reused solar panels indicates a wide range of pricing depending on age and condition (\$0.10 to \$0.30 per watt). Future pricing of solar panels is difficult to predict at this time, due to the relatively young age of the market, changes to solar panel technology, and the ever-increasing product demand. A conservative estimation of the value of solar panels at \$0.10 per watt would yield approximately \$15,400,000. Increased costs of removal, for resale versus salvage, would be expected in order to preserve the integrity of the panels; however, the net revenue would still be substantially higher than the estimated salvage value.



The resale value of components such as trackers, may decline more quickly; however, the salvage value of the steel that makes up a large portion of the tracker 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 summaries¹. The price used to value the steel used in this report is \$204 per metric ton; aluminum at \$0.40 per pound; silicon at \$0.40 per pound and glass at \$0.05 per pound. The main component of the tracking system and piles is assumed to be salvageable steel. Solar panels are estimated to contain approximately 75 percent glass, 8 percent aluminum and 5 percent silicon. A 50 percent recovery rate was assumed for aluminum and all panel components, due to the processing required to separate the panel components. Alternative and more efficient methods of recycling solar panels are anticipated before this Project is decommissioned, given the large number of solar facilities that are currently being developed. 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	Total Salvage Price per Item	Number of Items	Total
Panels - Silicon	Pounds per Panel	1.8	\$0.40	\$0.720	300,000	\$216,000
Panels - Aluminum	Pounds per Panel	2.8	\$0.40	\$1.120	300,000	\$336,000
Panels - Glass	Pounds per Panel	26.7	\$0.05	\$1.335	300,000	\$400,500
Collection Cabling - Aluminum	Pounds per foot		\$0.19	\$0.190	76,560	\$14,546
Tracking System and Posts	Metric tons per MW _[DC]	43.2	\$204	\$8,812.80	154.0	\$1,357,171
Substation	Each	1	\$50,000	\$50,000	1	\$50,000
						\$2,374,217

^{*} Revenue based on salvage value only. Revenue from used panels at \$0.10 per watt could raise \$15,400,000 as resale versus the estimated salvage revenue.

¹ USGS Commodity Statistics and Information: https://www.usgs.gov/centers/nmic/commodity-statistics-and-information



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4.4 DECOMMISSIONING COST SUMMARY

Table 5 provides a summary of the estimated cost to decommission the Project, using the information detailed in Sections 4.2. Estimates are based on 2021 prices, with no market fluctuations or inflation considered.

Table 5 Net Decommissioning Summary

Item	Cost/Revenue
Decommissioning Expenses	\$6,190,711

4.5 FINANCIAL ASSURANCE

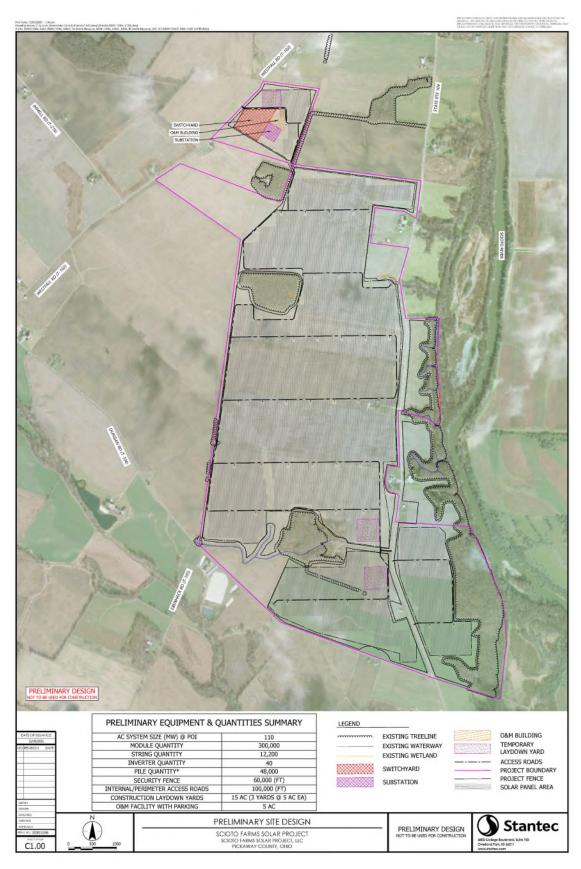
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Scioto Farms Solar will also be responsible for coordinating the repair of public roads damaged or modified during the decommissioning process. All Project equipment will be removed within one year.



FIGURE







Preliminary Decommissioning Plan – Scioto Farms Solar Project Pickaway County, Ohio



Prepared for: Scioto Farms Solar Project, LLC 500 Sansome Street, Suite 500 San Francisco, CA 94111

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

Project No: 2028113286 December 06, 2021 Revised January 19, 2022

This document entitled Preliminary Decommissioning Plan – Scioto Farms Solar Project, Pickaway County, Ohio, was prepared by Stantec Consulting Services Inc. ("Stantec") for the use of Scioto Farms Solar Project, LLC (the "Client"), and the applicable regulatory agencies. Any reliance on this document by any other third party is strictly prohibited. The material in this document reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in this document are based on conditions and information existing at the time this document was published and do not take into account any subsequent changes.

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Figure 1 Proposed Project Layout



1.0 INTRODUCTION

Scioto Farms Solar Project, LLC (Scioto Farms Solar), a wholly owned subsidiary of Naturgy Candela Devco, LLC, is proposing to construct and operate the Scioto Farms Solar Project (Project) in Wayne Township in Pickaway County, Ohio. The Project footprint encompasses approximately 750 acres of a 1,070-acre Project area. The maximum generating capacity of the Project will be up to 110 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 the fourth quarter of 2022, with a projected Commercial Operation Date in the fourth quarter of 2023. The Project will consist of the installation of the perimeter fencing; solar modules and associated trackers and steel piles; inverter stations; access and internal roads; electrical collection system and substation (Figure 1).

This Plan is applicable to the decommissioning/deconstruction and restoration phases of the Project. A summary of the components to be removed is provided in Section 1.1. Summaries of the estimated costs and potential salvage value associated with decommissioning the Project are provided in Section 4.

1.1 SOLAR FARM COMPONENTS

The main components of the Project include:

- Solar modules
- Tracking system and steel piles
- Inverter and transformer stations
- Electrical cabling and conduits
- Site access roads
- Meteorological stations
- Perimeter fencing
- Project substation and transmission tie-in line
- O & M building

1.2 TRIGGERING EVENTS AND EXPECTED LIFETIME OF PROJECT

Project decommissioning may be triggered by an event such as the end of the power purchase agreement with no plans for further marketing of power sales, abandonment, or when the Project reaches the end of its operational life. The Project will be considered to be abandoned if facilities are non-operational for a period of more than twelve (12) consecutive months. Project facilities will be removed from the site in accordance with a timeframe agreed upon by Scioto Farms Solar, the Ohio Power Siting Board Staff (OPSB), and the respective county administrators.

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If properly maintained, the expected lifetime of the Project is approximately 40 years. At the end of the Project's useful life, the modules and associated components will be decommissioned and removed from the Project site.

Components of the solar 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 (landfill). Decommissioning activities will include removal of the arrays and associated components as listed in Section 1.1 and described in Section 2.

Scioto Farms Solar is committed, where possible, to recycling all solar panels at the end of Project life/ decommissioning.

1.3 DECOMMISSIONING SEQUENCE

Decommissioning activities will begin within twelve months of the Project ceasing operation and are anticipated to be completed in 12 to 18 months. Scioto Farms Solar 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 fencing and other best management practices (BMPs) to protect sensitive resources and control erosion during decommissioning activities
- De-energize solar arrays
- Dismantle panels and above ground wiring
- Remove tracking equipment and piles
- Remove inverter/transformer stations along with support system and foundation pads
- Remove electrical and communication cables and conduits
- Remove array fence
- Remove access and internal roads and grade site (if required)
- Remove substation and associated transmission tie-in line
- De-compact subsoils as needed, restore and revegetate disturbed land to preconstruction conditions to the extent practicable
- Remove O&M building, storage and parking.



2.0 PROJECT COMPONENTS AND DECOMMISSIONING ACTIVITIES

The solar facility components and decommissioning activities necessary to restore the Project area, as near as practicable, to pre-construction conditions are described within this section.

2.1 OVERVIEW OF SOLAR FACILITY SYSTEM

Scioto Farms Solar anticipates utilizing approximately 300,000 solar modules, with a total generating capacity of approximately 110.0 MW_[AC]. The Project footprint encompasses approximately 750 acres of the larger 1,070-acre Project area and will be bounded by perimeter fencing as shown on Figure 1 (preliminary design; subject to modification). The land within the perimeter fencing is predominantly agricultural land.

Foundations, steel piles, and electric cabling and conduit installed 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. Public roads damaged or modified during the decommissioning and reclamation process will be repaired upon completion of the decommissioning phase and in compliance with the Road Use & Maintenance Agreement that is expected to be implemented between Scioto Farms Solar and the Pickaway County Engineer. An estimated cost of public road repair is included in Project decommissioning overhead costs.

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. Other waste materials will be disposed of in accordance with state and federal law in an approved licensed solid waste facility.

Solar panels may have value in a resale market, depending on their condition at the end of the Project life. If the Project is decommissioned prior to the anticipated 40-year timeframe, the resale value of components will be substantially higher than at the end of the projected Project.

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)	300,000	Each
Tracking System (equivalent full trackers)	3,847	Tracker
Steel Piles	46,644	Each
Inverter Stations with Piers or Foundations	40	Each
Electrical Cables and Conduits	76,560	Linear Foot (estimated)
Perimeter Fencing	60,000	Linear Foot
Access Roads (approximate)	100,000	Linear Foot
Operations and Maintenance (O&M) Trailer	1	Each
Overhead Transmission Line	500	Linear foot
Project Substation	1	Each

2.2 SOLAR MODULES

Scioto Farms Solar intends to use a bifacial monocrystalline panel (520-550 watt) for the Project. Statistics and estimates provided in this Plan are based on Longi Solar LR5-72HBD bifacial module or a similar module. Each module assembly (with frame) will have a total weight of approximately 71.2 pounds (32.3 kg). The modules will be approximately 7.4 feet by 3.75 feet in size and are mainly comprised of non-metallic materials such as silicon, glass, composite film, 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. Scioto Farms Solar has not finalized a tracker to be used for the Project so this Plan assumed use of the Horizon by NEXTracker or similar system for the tracking units. Each full, three-string tracker will be approximately 39.6 meters (292 feet) in length and will support 78 solar modules. Smaller trackers, supporting 52 panels each, will be employed at the edges of the layout to efficiently utilize available space. The tracking system is mainly comprised of high-strength galvanized steel and anodized aluminum; steel piles that support the system are assumed to be comprised of galvanized steel.

The solar arrays will be deactivated from the surrounding electrical system and made safe for disassembly. Liquid wastes, including oils and hydraulic fluids 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 from the ground.

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

2.4 INVERTER STATIONS

The combined inverters/transformers (inverter stations) generally sit on small concrete footings or piers on steel piles within the array. The inverters will be deactivated, disassembled and removed. For purposes of this report, it is assumed that inverters will be constructed on concrete pads which will be completely removed during decommissioning. 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.

2.5 ELECTRICAL CABLING AND CONDUITS

The Project's underground electrical collection system will be placed at a depth of at least 18 inches below the ground surface. For purposes of this report, it is assumed that all subsurface cabling will be removed and salvaged. Recovery cost has been conservatively based on aluminum wiring; however, the salvage value of copper, if used, would be far greater.

2.6 PROJECT SUBSTATION

A Project substation will be part of the Project within an approximately two-acre footprint. The substation will contain within its perimeter, a gravel pad, power transformers and footings, an electrical control house, and concrete pads, as needed. The substation transformers may be sold for re-use or salvage. Components of the substation that cannot be salvaged will be transported off-site for disposal at an approved waste management facility. Although there is some potential that the Project substation may remain at the end of the Project life, an estimated decommissioning cost has been included in this Plan.

2.7 OVERHEAD GENERATION TIE-IN TRANSMISSION LINE

A short (approximately 500-foot) overhead transmission line will be constructed between the Project substation and a utility switchyard (the point of interconnection). Removal of the overhead generation tie-in transmission line is included in this Plan.

2.8 OPERATIONS AND MAINTENANCE BUILDING

One Project-specific O&M structure will be utilized for the Project. The structure will be a self-contained modular office of steel container-type construction. It will be installed on a gravel pad with connections to electrical and other necessary services. The structure will be completely removed from site during the decommissioning process.

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2.9 PERIMETER FENCING AND ACCESS ROADS

The Project will include a security fence around the perimeter of the site and exclusionary area. The fence will total approximately 60,000 feet in length.

Access drives will provide direct access to the solar facility from local roads and along the inner perimeter of the arrays. Internal roads will be located within the array to allow access to the equipment. The site access drives will be approximately 20-24 feet in width and total approximately 1,660 feet (0.31 miles) in length. The internal roads will be approximately 12-16 feet in width and total approximately 98,340 feet (18.63 miles) in length. The access drive and internal road lengths may change with final Project design. To be conservative, the decommissioning estimate assumes that all site access drives will be removed, and internal roads will be decompacted.

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. The internal access roads will be comprised of compacted native soil. The estimated quantity of these materials is provided in Table 2.

Table 2 Typical Access Road Construction Materials

Item	Quantity	Unit
Aggregate fill, assumed 8-inch thick – to be removed	820	Cubic Yards
Compacted native soil (to be decompacted and left in place)	43,707	Cubic 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. Following removal of aggregate, 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 SOILS AND AGRICULTURAL LAND

Areas of the Project that were previously utilized for agricultural purposes will be restored to their pre-construction land use as dictated by landowner lease agreements. Soils compacted during de-construction activities will be de-compacted, as necessary. Land disturbed by Project facilities will be restored in such a way to be used in a reasonably similar manner to its original intended use as it existed prior to Project construction.

3.2 RESTORATION AND REVEGETATION

Areas of the Project that have been excavated and backfilled will be graded as previously described. If present, drain tiles that have been damaged will be restored to pre-construction condition. 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 Scioto Farms Solar and the OPSB or as directed by regulations in affect at the time of decommissioning.

Scioto Farms Solar will attempt to monitor the site and ensure revegetation has been completed if permitted by the landowner who retains control of the land following decommissioning of the Project.

3.3 SURFACE WATER DRAINAGE AND CONTROL

The proposed Project is predominantly located on agricultural land. The Project facilities are being sited to avoid impacts to wetlands and waterways. The existing Project site conditions and proposed BMPs to protect surface water features will be detailed in a Project Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of decommissioning construction activities.

Surface water conditions at the Project site will be reassessed prior to the decommissioning phase. Scioto Farms Solar will obtain the required water quality permits from the Ohio Environmental Protection Agency (OEPA) and the U.S. Army Corp of Engineers (USACE), if needed, before decommissioning of the Project. Decommissioning construction storm water permits will also be obtained and a SWPPP prepared describing the protection needed to reflect conditions present at the time of decommissioning. BMPs may include enhancement of construction entrances, temporary seeding, permanent 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 above and below-ground ground components of the Project, and restoration as described in Sections 2, 3.1 and 3.2.

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) track mounted excavators, backhoes, LGP track bulldozers, LGP off-road end-dump trucks, front-end loaders, deep rippers, water trucks, disc plows and tractors to restore subgrade conditions, and ancillary equipment. Standard dump trucks will be used to transport material removed from the site to disposal facilities.



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 2021 average 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 panels could be sold in the wholesale market for reuse or refurbishment. As efficiency and power production of the panels 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 RISK OVER THE LIFECYCLE OF A PROJECT

The probability of an event that would lead to abandonment or long-term interruption is extremely low during the first 15 to 20 years of the Project life. Accordingly, the risk of decommissioning the Project is extremely low during this time frame. The reasons why the risk to decommission the Project is extremely low in the early phases of the Project include, but are not limited to, the resale value of the facilities; power purchase agreements in place; manufacturer warranties on components; property damage and business interruption insurance coverage; and the value of renewable energy in general in the current market.

4.2 DECOMMISSIONING EXPENSES

Project decommissioning 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 Project site as described in Sections 2 and 3. Table 3 summarizes the estimates for activities associated with the major components of the Project.

Table 3 Estimated Decommissioning Expenses – 110 MW_{AC} Solar Array

Activity	Unit	Quantity	Cost per Unit	Total
Overhead and management (includes estimated permitting required and public road repairs)	Lump Sum	1	\$563,000	\$563,000



Activity	Unit	Quantity	Cost per Unit	Total
Solar modules; disassembly and removal	Each	300,000	\$4.00	\$1,200,000
Tracking System disassembly and removal (equivalent full trackers)	Each	3,847	\$620.00	\$2,385,140
Steel pile/post removal	Each	46,644	\$9.70	\$452,447
Remove buried AC cable	Linear Feet	76,560	\$0.40	\$30,624
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Topsoil replacement for roads and rehabilitation of site	Lump Sum	1	\$1,006,900	\$1,006,900
Removed above ground transmission line and poles	Lump Sum	1	\$8,000	\$8,000
O&M Trailer	Each	1	\$5,000	\$5,000
Project substation	Each	1	\$300,000	\$300,000
Total estimated decommissioning cost				

4.3 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 panels is expected to be greater than salvage (i.e., scrap) value for most of the life of the Project.

Modules and other solar plant components may be sold within a secondary market or as salvage. A current sampling of reused solar panels indicates a wide range of pricing depending on age and condition (\$0.10 to \$0.30 per watt). Future pricing of solar panels is difficult to predict at this time, due to the relatively young age of the market, changes to solar panel technology, and the ever-increasing product demand. A conservative estimation of the value of solar panels at \$0.10 per watt would yield approximately \$15,400,000. Increased costs of removal, for resale versus salvage, would be expected in order to preserve the integrity of the panels; however, the net revenue would still be substantially higher than the estimated salvage value.

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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 summaries¹. The price used to value the steel used in this report is \$204 per metric ton; aluminum at \$0.40 per pound; silicon at \$0.40 per pound and glass at \$0.05 per pound. The main component of the tracking system and piles is assumed to be salvageable steel. Solar panels are estimated to contain approximately 75 percent glass, 8 percent aluminum and 5 percent silicon. A 50 percent recovery rate was assumed for aluminum and all panel components, due to the processing required to separate the panel components. Alternative and more efficient methods of recycling solar panels are anticipated before this Project is decommissioned, given the large number of solar facilities that are currently being developed. 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	Total Salvage Price per Item	Number of Items	Total		
Panels - Silicon	Pounds per Panel	1.8	\$0.40	\$0.720	300,000	\$216,000		
Panels - Aluminum	Pounds per Panel	2.8	\$0.40	\$1.120	300,000	\$336,000		
Panels - Glass	Pounds per Panel	26.7	\$0.05	\$1.335	300,000	\$400,500		
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Substation	Each	1	\$50,000	\$50,000	1	\$50,000		
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^{*} Revenue based on salvage value only. Revenue from used panels at \$0.10 per watt could raise \$15,400,000 as resale versus the estimated salvage revenue.

¹ USGS Commodity Statistics and Information: https://www.usgs.gov/centers/nmic/commodity-statistics-and-information



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4.4 DECOMMISSIONING COST SUMMARY

Table 5 provides a summary of the estimated cost to decommission the Project, using the information detailed in Sections 4.2, Estimates are based on 2021 prices, with no market fluctuations or inflation considered.

Table 5 Net Decommissioning Summary

Item	Cost/Revenue
Decommissioning Expenses	\$6,190,711

4.5 FINANCIAL ASSURANCE

Prior to construction, Scioto Farms Solar proposes to update this plan and to post decommissioning funds in the form of a performance (surety) bond prior to construction to cover 100 percent of the Decommissioning Cost as shown in Table 5. No salvage value of will be considered in the bond amount. The final Decommissioning Plan will be prepared by a professional engineer registered with the state board of registration for professional engineers and surveyors. Scioto Farms Solar proposes that the decommissioning plan and financial assurances be reviewed, updated, and submitted to OPSB every 5 years to assess the value of the financial assurance per the current net decommissioning cost estimate. The update will be completed by an engineer paid for by Scioto Farms Solar and submitted to the OPSB. The applicant will be listed as the Principal, the insurance company as the Surety, and the OPSB as the Obligee.

Scioto Farms Solar will also be responsible for coordinating the repair of public roads damaged or modified during the decommissioning process. All Project equipment will be removed within one year.

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Deleted: Potential Revenue – salvage value materials, only; no resale value included[1]

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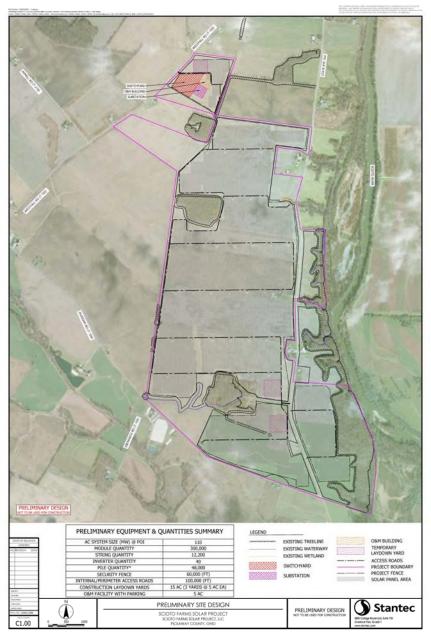
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FIGURE







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in

Case No(s). 21-0868-EL-BGN

Summary: Response of Scioto Farms Solar Project, LLC to Staff's Third Data Request electronically filed by Teresa Orahood on behalf of Sommer Sheely