# Sebree Solar II, LLC Case No. 2022-00131

## Application – Exhibit 12 Attachment A Exhibit 8

## Decommissioning Plan (7 Pages)

### DECOMMISSIONING PLAN Sebree Solar II Project

**Prepared for:** 

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#### **1.0 INTRODUCTION**

Sebree Solar II, LLC ("Applicant") contracted Environmental Consulting & Technology, Inc. ("ECT") to prepare a Decommissioning Plan ("Plan") for the Sebree Solar II Project ("Project") in Henderson County, Kentucky. This Plan was prepared to document the Applicant's intent to decommission the Project and to meet the requirements of subsection 30.02.G of the Henderson County Zoning Ordinance. The Henderson County Zoning Ordinance requires that a decommissioning plan be submitted that includes: (1) the defined conditions upon which the decommissioning will be initiated; (2) removal of all non-utility-owned equipment, conduit structures, fencing, roads, and foundations to a depth of three (3) feet; (3) restoration of the property to a substantially similar physical condition that existed immediately prior to construction; (4) the time frame for completion of decommissioning activities; (5) the party currently responsible for decommissioning, and; (6) Plans for updating the decommissioning plan.

The Project is a proposed 150-megawatt alternating current (MW AC) photovoltaic energy generating facility located within Henderson County. The final design Project Facilities (i.e., fenced-in array areas with PV solar panels and access roads) will be constructed within a 1,000-acre site, mapped approximately six (6) miles south of the City of Henderson, directly west of the Town of Robards, west of U.S. Highway 41 ("US-41"), north of State Road 56 ("HWY-56"), and east of US-41A. The Solar Energy System (SES) would connect to a proposed 4.85-mile 161 kilovolt (kV) transmission line that would then connect into the existing point of interconnection (POI) substation located at the Reid EHV substation located in Webster County, Kentucky. This transmission line and POI were part of the Sebree Solar Project, previously submitted under separate cover to the Kentucky State Siting Board (KYSB) under case number 2021-00072, and as such, the Applicant does not propose any new transmission line or POI facilities.

The Project components consist of photovoltaic (PV) modules mounted on a fixed tilt racking system, central electric inverters and transformers, underground electrical collection systems, solar meteorological stations, supervisory control and data acquisition (SCADA) hardware, control house and associated facilities, private gravel access roads with gated ingress/egress points, and security fencing. Temporary facilities associated with construction will include a laydown yard that will serve as facilities for construction office trailers and delivery points for major equipment. Collectively, the facilities listed in this paragraph comprise the "Project Facilities."

The site restoration will remove all above ground equipment associated with the Project. All below grade structures, including solar module support posts, will be completely removed. Gravel access roads will be removed unless the landowner requests that they remain in place.

As previously stated, the purpose of this Plan is to outline the procedures to decommission the facility and to restore the properties to be substantially similar to their pre-construction state to the extent practicable upon expiration of the operational life of the Project. Estimated costs are provided based on the array design and associated Project Facilities proposed to be installed for the Project. The



Applicant plans to reevaluate these decommissioning costs every five (5) years throughout the life of the Project and will adjust the financial assurance accordingly.

#### 2.0 SOLAR FACILITY COMPONENTS

The primary components of the Project include the following solar components and associated infrastructure. These counts of equipment are preliminary and subject to change as detailed design is not yet complete.

- Photovoltaic modules: 401,835
- Fixed tilt racking system: 14,883
- Collector substation and associated equipment: inverters (see specifics below), 1 transformer, 1 control house with associated data monitoring equipment, telecommunications equipment, electrical breakers, miscellaneous steel structures
- 4.11MVA Central inverters: 51
- Alternating Current (AC) Cable: 560,844 linear feet (underground collection) and 186,948 linear feet (trenched fiber optic cable)
- Direct Current (DC) Cable: 1,014,420 linear feet (underground collection) and 1,569,430 linear feet (string cable)
- Combiner Boxes: 968
- Meteorological station: 2
- Data monitoring systems (i.e., SCADA): 1
- Private gravel access roads: 68,335 linear feet
- Security fencing: 200,118 linear feet

The Applicant, or its successors and assignees, will be responsible for the decommissioning of the Project. Utility-scale solar facilities have a mechanical life expectancy of 30 years.

#### 3.0 DECOMMISSIONING TASKS AND SEQUENCE

The Applicant acknowledges that all solar components including Project Facilities constructed above ground and any structures below-grade will be removed offsite for disposal except for: (i) access roads or driveways on private property if the property owner requests in writing to the Applicant for such to remain, (ii) any infrastructure the subsequent landowner at the time of decommissioning may wish to retain as it may be beneficial to post-solar agricultural land use; infrastructure such as, but not limited to, fencing and stormwater basins (iii) switchyard, interconnection facilities and other similar utility facilities not owned by the Applicant, and (iv) non-recoverable underground cables.

The Applicant estimates decommissioning will occur over a period of one (1) year, unless, external circumstances prohibit site work, such as weather delays. All applicable local and state approvals and permits for the removal of the Project Facilities will be obtained prior to the start of decommissioning.

The anticipated sequence of decommissioning and removal are described below. However, an overlap of activities is expected.



- De-energize solar arrays and other facilities, if not already de-energized.
- Dismantle panels, racking, and frames.
- Remove inverters, transformers, and electrical cables and conduits (as recoverable).
- Remove fencing and miscellaneous equipment.
- Remove structural foundations.
- Remove access and internal roads, if not retained by the property owner.
- De-compact soils (if needed) and restore disturbed land to pre-construction conditions to the extent practicable.
- Revegetate any exposed soil that was disturbed during decommissioning.

The restoration efforts will return the land to substantially its original condition to the extent practicable, leaving any desirable infrastructure as requested by the subsequent landowner. It is unlikely that a significant amount of earthwork will be required due to the limited disturbance associated with construction and operations of the Project. Nonetheless, restoration activities may include regrading to restore land contours to the extent practicable, seeding to revegetate disturbed areas, de-compacting of soils determined to be compacted, and back-filling with native subsoil or topsoil as needed.

#### 4.0 DECOMMISSIONING COST ESTIMATE SUMMARY

The decommissioning costs detailed in **Table 1** include labor and material expenses for removal of solar modules, steel posts, transformers and inverters, access roads, perimeter fencing, cabling below-grade, and other Project Facilities at the estimated end of Project operations. The estimates provided include both the cost of decommissioning and removal (including site restoration) and the salvage value from the recovered materials. Solar components anticipated to have a resale or salvage value that can offset the cost of decommissioning include solar modules, steel piles, inverters, and transformers. The materials recovered include the insulated copper wire, bare copper, aluminum, and steel that constitute raw materials making up the Project Facilities. Reselling these valuable materials is a common practice in demolition and decommissioning of facilities because of the high value of these components.

Materials that have no value at the time of decommissioning will be recycled when possible or hauled offsite to a licensed solid waste disposal facility. The costs of removal, transportation, and disposal are included in these estimates. Furthermore, with the growth and development of solar technologies, there are secondary market opportunities to reuse and/or repurpose solar modules. These opportunities are not accounted for in the current estimates.



Decommissioning Task Description	Decommissioning Cost	Salvage Value
De-energize the facility	\$68,843.00	
Dismantle panels and PV frames	\$8,318,242.00	\$3,269,612.00
Remove inverters, electrical cables and conduits	\$355,165.00	\$222,070.00
Remove fencing and miscellaneous equipment/ Grading	\$674,545.00	\$47,817.00
Remove structural foundations and access roads (if not retained by owner)	\$965,699.00	\$804,194.00*
Earthwork and stabilization (decompact, restore, revegetate as needed)	\$671,253.00	\$671,253.00*
Total Decommissioning Cost	\$11,053,747.00	
Total Estimated Material Recovery (Salvage) Value	\$3,539,499.00	
Total Estimated Decommissioning Costs	\$7,514,248.00	
Total Estimated Decommissioning Costs with Reductions Applied	\$6,038,801.00*	

#### Table 1. Estimated Decommissioning Costs and Salvage Values After 30 Years of Operation

\*Value derived from optional owner retention of components or not requesting soil restoration; not material salvage.

#### 5.0 **RESTORATION**

It is unlikely that a significant amount of earthwork would be required, as the construction, operations, and maintenance of the Project involves limited earth disturbance. Nevertheless, if necessary, the Applicant or the assigned responsible party would regrade and contour the area to establish proper stormwater and sediment controls until the area is established. Other initiatives will be taken as needed to restore vegetative cover to its original or an improved condition, such as through soil decompaction and reseeding, as it was prior to development.

#### 6.0 TIMELINE AND PARTIES RESPONSIBLE TO COMPLETE DECOMMISSIONING

In accordance with Section 30.02.G.2(1), decommissioning would begin no later than 12 months (365 days) after the Level 3 SES has ceased to generate electricity, the land lease has ended, or succession of use of abandoned facility, etc. Decommissioning would be completed no later than 12 months (365 days) after commencement of decommissioning. The Applicant or a designated party as approved by the Henderson County Board of Commissioners will assume responsibility to conduct decommissioning activities within the posted time frame.



#### 7.0 DECOMMISSIONING PLAN UPDATES

In accordance with Section 30.02.G, Applicant will prepare a final Decommissioning Plan once the Project design is finalized. This final Decommissioning Plan will be provided to Henderson County at least four (4) weeks prior to the commencement of construction along with a surety bond or other form of financial security. Applicant agrees to update this Decommissioning Plan every five (5) years during the life of the Project.

