Decommissioning Plan Bellflower Solar Project
Henry and Rush Counties, Indiana

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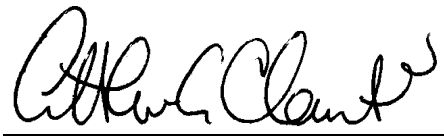

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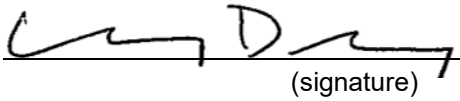

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1.0 INTRODUCTION

Lightsource Renewable Energy Operations, LLC (Lightsource), is proposing to construct the Bellflower Solar Project (the Project) in Henry and Rush Counties, Indiana.

The proposed Project is located in Franklin and Spiceland Townships in Henry County and Center and Washington Townships in Rush County, Indiana. The Project boundary encompasses approximately 1,305 acres. The maximum nameplate generating capacity of the Project will be up to 152 megawatts, alternating current $(MW)_{[AC]}$. Major components of the Project include solar modules, tracking systems and inverters/transformers (inverter stations). Bellflower Solar is currently considering bifacial poly-crystalline solar panels sourced from CanadianSolar.

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 2021, with a projected Commercial Operation Date in the third quarter of 2022. The Project will consist of the installation of the perimeter fencing; solar arrays and associated trackers, foundations, 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. A summary of estimated costs associated with decommissioning the Project is also provided in Section 4.0.

1.1 SOLAR FARM COMPONENTS

The main components of the Project include:

- Solar panels and tracking system
- Foundations and steel piles
- Inverter stations
- Electrical cabling and conduits
- Site access roads
- Perimeter fencing
- Project substation

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, abandonment, or when the Project reaches the end of its operational life. The portion of the Project in Rush County will be considered to be a discontinued use after six (6) months without energy production, unless a plan is developed and submitted to the Executive Director outlining the steps and schedule for returning the Project to service. The portion of the Project in Henry County will be

considered to be abandoned if the Project is non-operational without the written consent of the Zoning Administrator for a period of twelve (12) consecutive months. Project facilities will be removed from the site in accordance with a timeframe agreed upon by Lightsource and the respective county administrator.

If properly maintained, the expected lifetime of a utility-scale solar facility is approximately 25 to 40 years with an opportunity for a project lifetime of 50 years or more with equipment replacement and repowering. Depending on market conditions and project viability, the solar arrays may be retrofitted with updated components (e.g., panels, frame, tracking system, etc.) to extend the life of the project. In the event that the modules are not retrofitted, or at the end of the Project's useful life, the panels and associated components will be decommissioned and removed from the Project site.

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.

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.

1.3 DECOMMISSIONING SEQUENCE

Decommissioning activities will begin within twelve months of the Project ceasing operation and are anticipated to be completed in six to twelve months. Bellflower 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 racking
- Remove frame and internal components

- Remove portions of structural foundations and backfill sites
- Remove inverter stations and foundations
- Remove electrical cables and conduits
- Remove access and internal roads and grade site (if required)
- Remove substation
- De-compact subsoils as needed, restore and revegetate disturbed land to pre-construction conditions to the extent practicable

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

Bellflower Solar anticipates utilizing approximately 418,975 solar modules, with a total nameplate generating capacity of approximately 190.6 MW, direct current (DC) (152.5 $MW_{[AC]}$). The Bellflower Solar Project area encompasses approximately 1,305 acres 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. Statistics and estimates provided in this Plan are based on a Canadian Solar BiHiKu Bifacial 455-watt bifacial module although the final panel manufacturer has not been selected at the time of this report.

Foundations, steel piles, and electric cabling and conduit installed below the soil surface will be removed. Access roads 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. An estimated cost of public road repair is included in Table 3.

Estimated quantities of materials to be removed and 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 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 25 to 30-year timeframe, the resale value of components may 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)	418,975	Each
Tracking System (combined 2 and 3-string trackers)	5,587	Tracker
Steel Piles	67,632	Each
Inverter Stations with Foundations	49	Each
Electrical Cables and Conduits	59,755	Linear Foot (estimated)
Perimeter Fencing	58,600	Linear Foot
Access Roads (approximate)	48,800	Linear Foot
Project Substation	1	Each

2.2 SOLAR MODULES

Bellflower Solar is considering a bifacial poly-crystalline panel (455 watt) from Canadian Solar or a similar module from other manufacturers for the Project. Each module assembly (with frame) has a total weight of approximately 62 pounds (28.2 kg). The modules will be approximately 84 inches by 41 inches 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.

2.3 TRACKING SYSTEM AND SUPPORT

The solar modules will be mounted on a single-axis tracking system, such as the DuraTrack HZ manufactured by Array Technologies, or similar system. Each full, three-string tracker will be approximately 78 meters (256.2 feet) in length and will support 75 solar modules. Smaller two-string trackers, supporting 50 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 piers with steel piles will be utilized. 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 approximately three feet (36 inches) below the ground surface. All 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

Bellflower Solar will include a Project substation within an approximately 300-foot by 300-foot footprint. The substation will contain within its perimeter, a gravel pad, power transformer and footings, electrical control house and concrete foundations, as needed. The substation transformer 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 TRANSMISSION LINE

There is no overhead transmission line associated with the Project; therefore, no overhead transmission line removal is included in this Plan.

2.8 OPERATIONS AND MAINTENANCE BUILDING

There is no onsite Operations and Maintenance (O&M) building planned; therefore, no O&M building removal is included in this Plan.

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 58,600 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 16 feet in width and total approximately 48,800 feet (9.24 miles) in length. The access road lengths may change with final Project

design. To be conservative, the decommissioning estimate assumes that all access roads will be completely removed.

During installation of the Project access roads, the existing topsoil will be excavated to a depth of six inches, the subgrade will be compacted, and then eight inches of granular fill will be placed. This will leave the top of the gravel drive approximately two inches above the surrounding grade to help minimize ponding on top of the drives. The estimated quantity of these materials is provided in Table 2.

Table 2 Typical Access Road Construction Materials

Item	Quantity	Unit
Topsoil replacement	14,460	Cubic Yards
Compacted granular fill, 8-inch thick – to be removed	19,280	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 graded, de-compacted with deep ripper or chisel plow (ripped to 18 inches), back-filled 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 condition and land use as dictated by landowner lease agreements. Restored areas will be revegetated in consultation with the current landowner and in compliance with regulations in place at the time of decommissioning. 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

Project sites that have been excavated and backfilled will be graded as previously described. Soils compacted during de-construction activities will be de-compacted, as necessary, to restore the land to pre-construction land use. If present, drain tiles that have been damaged will be restored to pre-construction condition. Topsoil will be placed on disturbed areas and seeded with appropriate vegetation or in coordination with landowners within agricultural land. Work will be completed to comply with the conditions agreed upon by Bellflower Solar and Henry and Rush County permitting in affect at the time of decommissioning.

3.3 SURFACE WATER DRAINAGE AND CONTROL

The proposed Project area is predominantly located in actively drained agricultural land. The terrain is relatively flat with several ditches protected by vegetated buffers. The Project facilities are being sited to avoid wetlands, waterways, and drainage ditches to the extent practicable. The existing Project site conditions and proposed BMPs to protect surface water features will be detailed in a Project Stormwater Pollution Prevention Plan (SWPPP) for the Project prior to the commencement of construction activities.

Surface water conditions at the Project site will be reassessed prior to the decommissioning phase. Bellflower Solar will obtain the required water quality permits from the Indiana Department of Environmental Management (IDEM) and the U.S. Army Corp of Engineers (USACE), if needed, before decommissioning of the Project. 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 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 ground components of the Project and restoration as described in Sections 2 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. Over-the-road dump trucks will be required 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 2019-2020 average market values were used to estimate labor expenses. Fluctuation and inflation of the labor costs were not factored into the estimates.

4.1 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 proposed Project site as described in Section 2. Table 3 summarizes the estimates for activities associated with the major components of the Project.

Table 3 Estimated Decommissioning Expenses – 150 MW Solar Array

Activity	Unit	Quantity	Cost per Unit	Total
Overhead and management (includes estimated permitting required)	Lump Sum	1	$720,000.00	$720,000
Public road repair	Lump Sum	1	$202,000.00	$202,000
Solar modules; disassembly and removal	Each	418,975	$3.75	$1,571,156
Tracking System disassembly and removal (equivalent 3-string trackers)	Each	5,587	$620.00	$3,463,940
Steel pile/post removal	Each	67,044	$9.50	$636,918
Remove buried cable	Linear Feet	59,755	$0.40	$23,902
Inverter stations	Each	49	$1,100.00	$53,900
Inverter steel pile removal	Each	588	$9.50	$5,586
Access road excavation and removal	Lump Sum	1	$154,240.00	$154,240
Perimeter fence removal	Linear Feet	58,600	$2.80	$164,080
Topsoil replacement for roads and rehabilitation of site	Lump Sum	1	$715,500.00	$715,500
Project substation	Each	1	$300,000	$300,000
Total estimated decommissioning cost				**$8,012,222**

4.2 DECOMMISSIONING REVENUES

Project revenue will be realized through the sale of the solar facility components and construction materials. Modules and other components may be sold within a secondary market or as salvage. 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 and copper derived from sources including on-line recycling companies and United States Geological Survey (USGS) commodity summaries. The price used to value the steel used in this report is $253 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 70 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	2.2	$0.40	$0.88	418,975	$368,698
Panels - Aluminum	Pounds per Panel	3.5	$0.40	$1.40	418,975	$586,565
Panels - Glass	Pounds per Panel	32.6	$0.05	$1.63	418,975	$682,929
Medium Voltage Collection Cabling	Pounds per 1,000 feet	833	$0.19	$158.27	59.7	$9,449
Tracking System and Posts	Metric tons per $MW_{[AC]}$	50	$253	$12,650	152.5	$1,929,125
Substation	Each	1	$50,000	$50,000	1	$50,000
						$3,626,766

4.3 DECOMMISSIONING COST SUMMARY AND FINANCIAL ASSURANCE

The following is a summary of the net estimated cost to decommission the Project, using the information detailed in Sections 4.1 and 4.2. Estimates are based on 2019-2020 prices, with no market fluctuations or inflation considered.

Table 5 Net Decommissioning Summary

Item	Cost/Revenue
Decommissioning Expenses	**$8,012,222**
Potential Revenue – salvage value of panel components and recoverable materials	**$3,626,766**
Net Decommissioning Cost	**$4,385,456**

FIGURES