

**APPENDIX P – DECOMMISSIONING PLAN & COST ESTIMATE**



## **TPE IL KN188, LLC Community Solar Project Decommissioning Plan**

TPE IL KN188, LLC has prepared the following plan to fulfill local requirements and assumes that the Project will be constructed in accordance with all permits and approvals.

### **1.0 Project Description**

The TPE IL KN188, LLC Community Solar Project is an approximately 5 MW AC solar farm located on parcel 14-05-300-025, North of the intersection of Esker Drive and Harter Road in Kane County, IL (the "Project"). The Project is to be constructed on approximately 23 acres. The purpose of the Project is the generation of renewable solar electricity. The Project will be interconnected to the Commonwealth Edison ("ComEd") electric distribution grid at the existing underground power lines south of the site, along State Harter Road.

The estimated useful Project lifetime is 25-40 years, or more. The following list is a summary of the Project features:

- Approximately 5 MW AC total solar array consisting of silicon solar panels
- Driven post or ground screw foundations and steel and aluminum racking system
- 8' Security fence surrounding the array perimeter
- Inverters and transformers for power conditioning
- Concrete equipment pads for inverter and/or switchgear locations
- Copper and aluminum wire
- Underground conduit at the array location
- Overhead poles and wires from the array location to utility poles
- Gravel access roads
- Metal security gates at array location
- Miscellaneous electrical equipment

### **2.0 Decommissioning Plan**

The Project has an anticipated operation life of 25 to 40 years or longer if maintenance is continued. At the end of operational life of the Project, the Project will be safely dismantled using conventional construction equipment, rather than being demolished or otherwise disposed of. Decommissioning shall include stabilization of the site and the removal of all solar collectors, cabling, electrical components, fencing and any other associated equipment. The Project consists of numerous materials that can be resold or recycled for significant scrap value, including steel, aluminum, glass, copper and plastics. Often, current market salvage values of a Project exceed estimated decommissioning and site restoration expenses.

#### **2.1 Temporary Erosion Control**

Temporary erosion and sedimentation control best management practices will be used during the decommissioning phase of the Project. Control features will be regularly inspected during the decommissioning phase and removed at the end of the process. All decommissioning activities will conform with local and state regulations.

#### **2.2 Material Removal Process**

The decommission process will consist of the following general steps:

- 2.2.1: Project shall be disconnected safely from the power grid and all equipment shall be switched to off position
- 2.2.2: PV modules shall be disconnected, packaged, and returned to manufacturer or appropriate facility for recycling or resold for use in other projects
- 2.2.3: Above and underground cabling shall be removed and sent to an appropriate recycling facility
- 2.2.4: Inverters will be disconnected from modules and shipped intact to an approved electrical equipment recycler
- 2.2.5: Racking materials shall be dismantled, removed, and recycled off-site at an approved recycler
- 2.2.6: Fencing will be dismantled, removed, and recycled off-site at an approved recycler
- 2.2.7: Grade slabs will be broken and removed and disposed of in compliance with local and state regulations
- 2.2.8: All remaining electrical and support equipment will be dismantled and recycled or disposed of in compliance with local and state regulations

### **2.3 PV Module Removal**

Solar photovoltaic modules used in the Project are manufactured within regulatory requirements for toxicity based on Toxicity Characteristic Leaching Procedure (TCLP). The solar panels are not considered hazardous waste. The panels used in the Project will contain silicon, glass, and aluminum, which have value for recycling. Solar panels have a warranty of 20 – 25 years and useful life of 35 – 50 years. The most realistic outcome for solar modules is re-use in other generation projects. Modules will be sold for re-use or dismantled and packaged per manufacturer or approved recyclers specifications and shipped to an approved off-site recycler.

### **2.4 Electric Wire Removal**

Electric wire made from copper or aluminum has value for recycling. DC wiring can be removed manually from the panels to the inverter. Underground wire in the array will be pulled and removed from the ground. Overhead cabling for the interconnection will be removed from poles. All wire will be sent to an approved off-site recycler.

### **2.5 Electrical Equipment Removal**

Inverters, panels, transformers, switchgear, and other electrical equipment will be dismantled, packaged, and removed from the site per manufactures specifications for removal, decontamination, disposal or recycling. Any dielectric fluids present in transformer, or other electric equipment will be removed, packaged, and sent to an approved waste facility.

### **2.6 Racking and Fencing removal**

All racking and fencing material will be broken down into manageable units and removed from Project and sent to an approved recycler. All racking posts driven into the ground will be pulled and removed.

### **2.7 Concrete Slab Removal**

Concrete slabs used as equipment pads will be broken and removed. Clean concrete will be crushed and disposed of off-site and or recycled and reused either on or off-site.

### **2.8 Access Road Removal**

Gravel from on-site access roads shall be removed and recycled if requested by the Landowner or Required under an AIMA. Once the gravel is removed, the soil below the gravel and the soil along compacted dirt access roads shall be scarified a depth of 18-inches and blended as noted in the Site Restoration section below.

### **2.9 Landscaping**

Unless required to remain in place by the Landowner or an AIMA agreement, all vegetative landscaping and screening installed as part of the Project will remain in place. Landscape areas will be restored as noted in the Site Restoration section below.

### **2.10 Site Restoration**

Once removal of all project equipment is complete, all areas of the project site that were traversed by vehicles and construction and/or decommission equipment that exhibit compaction and rutting shall be restored. All prior agricultural land shall be ripped at least 18 inches deep or the extent practicable and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drain tile lines or underground utilities may necessitate less ripping depth. Once this is complete, seed will be planted if desired (in consultation with landowners).

### **2.11 Final Site Walkthrough**

A final site walkthrough will be conducted to remove debris and/or trash generated within the site during the decommissioning process and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the Project being removed.

## **3.0 Future Land Use**

The site will be restored and reclaimed to approximately the pre-construction condition in conformance with the site lease agreement and the Agricultural Impact Mitigation Agreement (AIMA). It is assumed that the site will be returned to agricultural use after decommissioning, and appropriate measures will be implemented to achieve said use.

## **4.0 Decommissioning Terms**

Decommissioning security financing shall be required by the county in order to assure the proper decommissioning of the site. The County Board may, in its sole discretion, agree to accept security, or a portion thereof, in another form such as a bond or corporate guarantee. The final decommissioning plan and financial security must be presented to and accepted by the County Board prior to the issuance of a building permit for the Project. An updated decommissioning plan shall be submitted to the county every five years.

## **5.0 Decommissioning Costs (estimated)**

The total estimated cost of site decommissioning is \$245,000. This number was derived using the RS Means Heavy Site estimating manual and is in 2022 dollars.