



Liberty Farms Solar Energy Center

Richland Township
Special Exception Use Permit

Exhibit G
Decommissioning
Estimate Report

9/29/2025

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DECOMMISSIONING PLAN WITH COST ESTIMATE

Liberty Farms Solar – Richland
Township, Kalamazoo County, MI

BLACK & VEATCH PROJECT NO. 421703

PREPARED FOR

Consumer Energy

24 MARCH 2026

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1.0 Project Description

Liberty Farms Solar is a 220 MW solar project utilizing photovoltaic (PV) modules located in Richland Township, Kalamazoo County, Michigan. The total Liberty Farms Solar property area is approximately 1,200 acres. There are eight separate and fenced areas at the Liberty Farms Solar site.

2.0 Purpose of the Decommissioning Cost Estimate

This report summarizes a budgetary decommissioning cost estimate based on an AACE Class Level 5. No site visits were conducted for the preparation of this decommissioning cost estimate.

3.0 Decommissioning Approach

3.1 Overall Approach

At the end of the project's useful life, no equipment, including solar PV modules, is considered for resale or reuse.

The site will be restored to a pre-construction condition, with exceptions as noted below. Removal of permanent erosion control measures, such as grading and drainage improvements, are included in the decommissioning scope of work and estimate.

3.2 Demolition Approach

The demolition approach for the solar PV modules, tracking, pilings, fences, and foundations will be by mechanical means. Machines (e.g., a backhoe) will remove the PV modules, support frames, and piles. The PV modules will be dismantled on site with each material demolition debris segregated and prepared for offsite recycling. Concrete will be removed for offsite disposal.

3.3 Local Ordinances and Restoration Requirements

Richland Township, MI has zoning ordinance requirements specific to the decommissioning of Principal Use (Large) Solar Energy Systems. The decommissioning requirements are contained in Section 300.1800.37. of the zoning ordinance. The specific sections described are as follows:

- Section 300.1800.37.b.ii,
 - (13) Abandonment and Decommissioning: Following the project's operational life, the Applicant shall perform decommissioning and removal of the Principal Use (Large) SES and all its components. The Applicant shall prepare a Decommissioning Plan and submit it to the Planning Commission for review and approval before issuing the Special Exceptional Use approval. Under the plan, all structures, concrete, piping, facilities, and other project-related materials above grade and any structures below grade shall be removed off-site for disposal. Any Solar Array or combination of Photovoltaic Devices that is not operated for a continuous period of twelve (12) months shall be considered abandoned and shall be removed under the Decommissioning Plan. The ground must be restored to its original topography within three hundred and sixty-five (365) day of abandonment or decommissioning. Restoration shall also include bringing soil to its pre-development composition or better to ensure the return to prior use is possible upon restoration. Soil

tests shall be required as a part of the Decommissioning Plan both before development and prior to decommissioning. Soil shall be returned to its pre-development state within three hundred sixty-five (365) days of abandonment or decommissioning.

- (14) Continuing Security for Decommissioning: If any Principal Use (Large) SES is approved for construction under this section, Applicant shall post decommissioning security prior to the start of construction (in a mutually agreed upon form) for an amount necessary to accomplish the work required to decommission the project as agreed upon by the Township and Applicant. The amount shall be reasonably sufficient to restore the property to its previous condition prior to the construction and operation of the Principal Use (Large) SES. Such financial security shall be kept in full force and non-cancelable. The amount required for decommissioning security shall be determined by a third-party engineer or demolition expert mutually agreed upon by the Township and the applicant. This shall be reviewed by the Planning Commission every two (2) years from the date of issuance of zoning approval. Failure to submit any additional charges shall be construed as a violation of the Special Exception Use Permit.

4.0 Decommissioning Scope

4.1 Civil Scope of Work

Prior to the start of decommissioning activities, soil tests will be collected and analyzed as required by the Richland Township Ordinance (see Section 3.3). The soil will be tested using the USDA soil composition tests.

All project access roads will be removed. The estimate includes costs for the removal of aggregate access roads to their design depth. Imported organic topsoil is included to grade the road areas smooth and level with surrounding areas. The perimeter fences will be removed from the site.

The estimate includes only minor grading since the site will be finish graded to provide contours consistent with the drainage design at the time of original plant construction. The estimate excludes grading and mass excavation to return the site back to its original contours prior to construction of the project. The site will be re-seeded with select native grass seed mix in areas disturbed by construction equipment, which is assumed to be within the fenced areas.

The estimate includes removal of inverter foundations and solar PV module support pile foundations. All support piles will be extracted. All demolition debris will be transported off site to the recyclers and/or landfill.

The trees planted inside the Vegetative Buffer zones, which were established at select locations across the site, will be removed. The removal approach is based on felling each tree. The areas will be reseeded after the trees are removed.

4.2 Electrical Scope of Work

The solar PV module components and skids will be removed by mechanical means for recycling or offsite disposal.

The collection system in the solar field will be completely removed. All buried cable and associated conduit up to four feet underground are assumed to be removed by pulling them from the ground via mechanical means without the need to excavate and expose the cable and conduit.

4.3 Components Included in the Cost Estimate

The following components and structures are included in the demolition cost estimate:

- PV modules
- Support piles
- Racks
- Equipment (Inverters and MET stations)
- Cable
- Fence
- Roads

4.3.1 Key Quantities

Key quantities for the equipment located at Liberty Farms Solar include:

- 460,926 PV modules
- 77,685 Support Piles
- 5,395 Tracker/Racks
- 6 Met Stations
- 58 Inverters
- 58 MV Transformers
- 4,400,000 LF of above grade cable
- 1,950,000 LF of below grade (buried) cable
- 92,727 linear feet (LF) Fence
- 73,072 LF of gravel roads
- 1,200 acres of fenced site
- 6,670 trees in Vegetative Buffer zones
- 60 acres of Vegetative Buffer zones

4.3.2 Assumptions and General Clarifications

The cost estimate was developed based on the following:

- Total material estimates were based on comparisons to similar facilities, crew rate cost, and productivity factor, as applicable.
- Economic assumptions are based on regional cost estimates expressed in 2026 dollars.
- The cost estimate is based on a turnkey contracting approach. That is, the demolition contractor will perform all the work.
- Union rates for Michigan were considered for this demolition estimate.
- No equipment was considered for resale or reuse.
- PV modules will be removed and transported off site to a recycling facility for disposal.
- All concrete foundation pads will be removed. Concrete will be crushed for offsite disposal at a local landfill.
- Drainage features installed for the project will remain in place.
- Approximately 66% of the 1,200 fenced acreage is assumed to be disturbed during demolition activities and will be seeded using select native seed mix.

- The gravel layer of roads will be removed and replaced with borrow fill to support native grass.
- Approximately 73,072 linear feet of gravel roads will be removed. The roads are assumed to be 12 feet wide with 10 inches of gravel.
- The cost to fell each tree inside the Vegetative Buffer zones is based on a unit cost of around \$200. The unit price is based on the assumption that the tree removal company will process and market the felled trees, thus offsetting the unit cost.
- One combined Stormwater Pollution Prevention Plan (SWPPP) will be developed for eight separate fenced areas.
- It is assumed that the decommissioning tasks will take 4 to 5 months to complete.
- Excluded components:
 - Switchyard
 - Substation
 - Soil nutrient enrichment plan
- No escalation is included.

5.0 Decommissioning Cost Estimate

The purpose of the decommissioning cost estimate is to determine the costs in current 2026 dollars required to demolish solar project components and surface restoration.

Black & Veatch developed the decommissioning cost estimate based on information and drawings provided by Consumers Energy Company (CEC) and Black & Veatch’s proprietary estimating tool. When site specific data was not available, typical data from Black & Veatch’s in-house databases was used. Additionally, a set of assumptions were developed based on previous experience. The information, analysis, and opinions used to develop the cost estimate and set of assumptions are based on publicly available sources, market research, along with financial and operational information used to develop the Black & Veatch’s in-house database.

The estimate is based on several assumptions and does not include any local contractor bids. No site visits were performed. The estimate accuracy is tied strongly to the key quantities listed above.

5.1 Decommissioning Cost Values and Rates

The direct costs provided in Table 5-1 are based on methodology, assumptions, and values defined in this study and information provided by CEC and supplemented with Black & Veatch estimate data. These cost estimates used conservative approaches and strategies based on available information. Economic assumptions are based on regional cost estimates expressed in 2026 dollars.

The crew composite rate used to develop the cost estimate is \$124/man-hour.

Table 5-1 Decommissioning Cost Summary

ITEM DESCRIPTION	COST
Direct Decommissioning Cost	
Liberty Farms Solar Plant in Richland Township	\$24,800,000
Total Direct Costs	\$24,800,000

Appendix A – Decommissioning Cost Estimate

DECOMMISSIONING COST ESTIMATE FOR LIBERTY FARMS	
Description for Direct Decommissioning Costs	Total
Inverter Demo	\$ 130,000
Site Restoration	\$ 3,010,000
Fence Removal	\$ 400,000
Module Removal	\$ 14,140,000
Pile & Tracker Removal	\$ 3,260,000
UG/BG Cable, Inverters, and Transformers	\$ 2,320,000
Remove Trees from Vegetative Buffer Zones	\$ 1,342,000
Construction Management	\$ 198,000
Direct Decommissioning Cost	\$ 24,800,000
Description for Scrap Metal	Total
Tracker frame (Aluminum)	\$57,000
Pilings (Galvanized Steel)	\$867,000
Transformers, Inverters	\$12,000
Insulated Copper Wire	\$486,000
Insulated Aluminum Wire	\$261,000
Fence posts (Galvanized Steel)	\$3,000
Potential Scrap Credit	\$ (1,686,000)