

Three Corners Solar Project

MDEP Site Location of Development Act Permit Application

SECTION 27: DECOMMISSIONING PLAN

27.0 DECOMMISSIONING PLAN

The proposed Project is a solar generation facility located in Benton, Clinton, and Unity Twp, Maine (see Section 1.0, Figure 1-1) with an estimated rated capacity of 110-MWac. The total Project solar array area consists of approximately 860 acres, and the total fenced area of the proposed solar arrays is approximately 688 acres. Power from the Project will be transmitted to the existing CMP Albion Road substation in Benton, located southwest of the Project, via the construction of an approximately 5.2 mile long 115-kV Genlead. The anticipated life expectancy of the Project equipment is 25 to 30 years. Decommissioning of the system will occur within 150 days following the end of the lease term or discontinuance of operation.¹ At the time of decommissioning, the Applicant or its successor will be responsible for the removal, recycling, and disposal of the solar panels, panel racks, inverters, fencing, collection substation, O&M building, and Collector/Genlead lines. Please see Figure 1-1 (Section 1.0) for the Project location map. Please see Exhibit 3-3 (Section 3.0) for proof from the Maine Secretary of State that the Applicant, a Delaware limited liability company with an authorized presence in Maine, is in good standing.

27.1 PROJECT DECOMMISSIONING

The Project decommissioning process will return the Project area to open land that, over time, is expected to return to its current state. The Applicant will be responsible for all decommissioning costs. The Applicant will also obtain any additional permits required for the decommissioning process, removal, and disposal of all Project infrastructure and will revegetate in accordance with permits. The Project area primarily consists of forested land. However, portions of the solar arrays adjacent to Palmer Road are proposed in active agricultural fields that meet the definition of active farmland within the past five years. Consistent with the Maine Solar Decommissioning Law,² Project infrastructure will be removed to a depth of 24 inches in forested areas and 48 inches in areas defined as farmland.³ All waste from dismantling the array will be transported by licensed transporters and recycled or disposed of in accordance with all local, state, and federal rules and regulations. The concrete pads will be broken up at the site and taken to an Aggregate Base Course recycling facility where the material will be accepted without charge. All other materials will be taken to an appropriate solid waste facility (e.g., Crossroads Landfill in Norridgewock, Maine).

For the purposes of decommissioning, the Project can be separated into the following major components, including:

- Ground-mounted solar arrays, with approximately 325,000 solar modules, associated racking, and up to 39 paired inverters/transformers
- Tracker foundations
- 34.5-kV Collector (underground and overhead)
- 115-kV Genlead
- Collection substation

¹ Defined as discontinuance of the Project operations for a continuous one-year period.

² 35-A MRSA §3491 et seq.

³ Project infrastructure located greater than 24 inches in currently forested areas and 48 inches below grade in current agricultural areas will be abandoned in place.

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- O&M building
- Perimeter fencing
- Site restoration, including the solar array area and access road

A site-specific erosion and sediment control (ESC) plan for the construction phase of the Project is included in Section 14.0 and detailed in Exhibits 1-1 and 1-2. The applicable ESC plans for the construction phase of the Project will be followed during the decommissioning phase, and ESC measures will be in place prior to the start of ground disturbance associated with decommissioning. These measures will be maintained until the site is stabilized, in accordance with the BMPs described in the Maine Erosion and Sediment Control Practices Field Guide for Contractors.⁴

27.2 ESTIMATED COST AND FINANCIAL ASSURANCE

27.2.1 Cost Estimate

The estimated cost for decommissioning the Project is approximately \$7,873,900 (Table 27-1). A detailed decommissioning budget, prepared by a Professional Engineer, is provided as Exhibit 27-1.

Table 27-1. Opinion of Potential Decommissioning Costs

Project Component / Task	Estimated Decommissioning Cost
1. Mobilization and Project Management	\$229,000
2. Panels, Trackers, and Other Components	\$4,579,700
3. Tracker Foundations	\$504,400
4. Electrical Collection System	\$330,000
5. Fencing	\$1,021,300
6. Site Work / Civil	\$1,209,500
Total Cost	\$7,873,900

27.2.2 Financial Assurance

The risk of decommissioning during the early years of a Project is negligible. The PV panels have a life expectancy of 25 to 30 years and include a 25-year linear performance warranty from the manufacturer. Moreover, once the Project is constructed, the cost to operate is negligible, so there is substantial economic incentive to maintain operations. Nevertheless, the Applicant will fund the full amount of decommissioning costs prior to the start of construction. As set forth above, the decommissioning costs are currently estimated to be \$7,873,900. The Applicant will demonstrate the availability of this amount to the MDEP through a performance bond, surety bond, letter of credit, or other acceptable form of financial assurance (the Financial Assurance). A draft decommissioning bond is provided as Exhibit 27-2.

To assess whether the estimated net cost of decommissioning has changed, for example, because of changes in removal costs, the Applicant will update the removal cost 15 years after commencement of

⁴ Maine Department of Environmental Protection's *Maine Erosion and Sediment Control Best Management Practices (BMPs), Field Guide for Contractors*, dated 2014. Available at <https://www.maine.gov/dep/land/erosion/escbmps/>.

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operations, every 5 years thereafter, and after decommissioning of any components, unless waived by MDEP.

The Financial Assurance will be kept in place until such time as the decommissioning work has been completed, provided to the extent available as liquid funds, the Financial Assurance may be used to offset the costs of decommissioning.

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Exhibit 27-1

Decommissioning Budget

Ryan Hartleben, PE
Longroad Energy
via email: ryan.hartleben@longroadenergy.com



January 28, 2022

Subject: Three Corners Solar Project Decommissioning Budget

Dear Mr. Hartleben:

Sewal was requested to develop this Decommissioning Budget for the 150.0 MWdc Three Corners Solar Project, located in the Maine communities of Benton, Clinton, and Unity Township in Kennebec County. The budget represents an opinion of probable cost (OPC), in today's dollars, for decommissioning based on the assumption that the solar project is no longer generating electricity for a continuous period of 12 months.

Information Sources for this Review

This review is based on the project drawings and quantity information provided by Longroad Energy. Wage rates used in these estimates are based on the Maine State Prevailing Wage Rates website (<https://sam.gov>).

Decommissioning Scope

In general, the decommissioning and restoration process in the budget consists of the following:

- Disassembly and removal of above-ground structures
- Removal of below-ground structures to a depth of 24 inches below existing grade
- Removal of below-ground structures to a depth of 48 inches below existing grade if within area classified as farmland
- Restoration of all graveled areas

Above-ground structures include the solar modules, trackers, combiner boxes, inverters, O&M structure, substation transformers and components, and overhead electrical collection and GenLead items. Below-ground structures include tracker, substation, and O&M foundations and some electrical wiring. Following removal of all above- and below-ground structures to 24 inches below grade (or 48 inches as applicable), the disturbed areas will be reseeded to promote re-vegetation. The cost for disposal for any materials that are not scrapped is considered incidental, unless otherwise noted.

Decommissioning Budget

1. Mobilization

1.1	Mobilization, demobilization, and project oversight	\$ 229,000.00
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Total opinion of probable costs for Mobilization:		\$ 229,000.00
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2. Solar Modules, Trackers, and Other Components

2.1	Disassembly of solar modules	\$ 1,221,000.00
2.2	Disassembly of trackers	\$ 343,000.00
2.3	Disassembly of other solar equipment	\$ 55,000.00
2.4	Transportation of solar modules	\$ 385,800.00
2.5	Transportation of trackers	\$ 73,800.00
2.6	Transportation of other equipment	\$ 16,200.00
2.7	Disposal of solar modules	\$ 2,484,900.00

The total opinion of probable costs for removal of Solar Modules, Trackers, and Other Equipment:		\$ 4,579,700.00
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3. Tracker Foundations

3.1	Removal of tracker foundations	\$	409,000.00
3.2	Transportation of tracker foundations	\$	95,400.00

The total opinion of probable costs for removal of the **Tracker Foundations:** **\$ 504,400.00**

4. Electrical Collection System

Note that, in general, direct-buried underground collector buried deeper than 2 ft will not be removed, but be abandoned in place. However, direct-buried underground collector in area classified as farmland, buried less than 4 ft deep, will be removed as part of decommissioning.

4.1	Disassembly of overhead collector lines and associated components	\$	22,100.00
4.2	Disassembly of above-grade DC string wire at the trackers	\$	35,800.00
4.3	Removal of direct-bury AC wire within farmland	\$	3,500.00
4.4	Disassembly of direct-bury AC wire within farmland	\$	3,200.00
4.5	Disassembly of overhead GenLead lines and associated components	\$	58,800.00
4.6	Transportation of collector and GenLead, DC string, & AC wire, and poles	\$	103,300.00
4.7	Disassembly of other GenLead equipment	\$	1,000.00
4.8	Transportation of other GenLead equipment	\$	600.00
4.9	Disassembly of substation and associated components	\$	50,200.00
4.10	Transport substation components to disposal/reclamation site	\$	5,000.00
4.11	O&M Building removal	\$	9,000.00
4.12	Disposal of O&M Building	\$	6,200.00
4.13	Removal and transportation/disposal of substation and O&M foundations	\$	31,300.00

The total opinion of probable costs for removal of **Electrical Collection System:** **\$ 330,000.00**

5. Fence

5.1	Disassembly of the fence	\$	1,015,300.00
5.2	Transportation of the fence	\$	6,000.00

The total opinion of probable costs for removal of **Fence:** **\$ 1,021,300.00**

6. Site Work/Civil (Site and Road Restoration)

6.1	Site restoration	\$	558,000.00
6.2	Road restoration	\$	521,000.00
6.3	Temporary erosion and sedimentation control measures	\$	107,900.00
6.4	Re-grading of substation and O&M sites	\$	22,600.00

The total opinion of probable costs for **Site Work/Civil:** **\$ 1,209,500.00**

Disassembly & Removal Summary

The total opinion of probable disassembly and removal costs from summing the items above: \$ **7,873,900.00**

Please contact us with any questions regarding the information contained in this review. We appreciate the opportunity to work with you on this project.

Sincerely,
James W. Sewall Company

Janine S. Murchison, PE
Project Manager
janine.murchison@sewall.com
Phone: (207) 492-1014



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Exhibit 27-2

Draft Decommissioning Bond

BOND # _____
Surety Company
Annually Renewable Decommissioning Bond

KNOW ALL MEN BY THESE PRESENTS: That _____ (hereinafter called the "Principal"), and Surety Company (hereinafter called the "Surety"), are held and firmly bound unto _____ (hereinafter called the "Obligee"), initially in the full and just sum of _____ (\$00.00), the payment of which sum, well and truly to be made, the said Principal and Surety bind themselves, and each of their heirs, administrators, executors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has or will construct a commercial solar photovoltaic facility ("Solar Farm"), as that term is currently defined by the _____ (Property); and

WHEREAS, the Principal has been authorized to construct a Solar Farm by virtue of a legislative enactment by the Obligee and by other administrative approvals of Boards of the Obligee, all of which are conditioned upon the requirement that the Principal file security to cover the cost of decommissioning all facilities/structures which are part of the "Solar Farm" at the Property; and

WHEREAS, the Obligee has agreed to accept a bond guaranteeing the performance of said decommissioning pursuant to the terms and conditions of that certain bond agreement entered into between Obligee and Principal in connection with the Solar Farm (the "Bond Agreement").

NOW, THEREFORE, UPON EXECUTION BY THE PRINCIPAL AND SURETY AND UPON ACCEPTANCE BY THE OBLIGEE, THIS OBLIGATION SHALL BECOME EFFECTIVE AND SHALL REMAIN IN FULL FORCE AND EFFECT PURSUANT TO THE FOLLOWING EXPRESS PROVISIONS:

1. This bond is for the term beginning _____ and ending _____. The bond may be extended for additional terms at the option of the surety, by continuation certificate executed by the Surety. Neither non-renewal by the surety, nor failure, nor inability of the Principal to file a replacement bond shall constitute a loss to the Obligee recoverable under this bond.
2. This Bond shall terminate prior to the term set forth above only upon receipt by Surety of an express, written statement by Obligee that the Solar Farm has been dismantled, in accordance with the decommissioning plan referenced and incorporated into the Bond Agreement, to the Obligee's satisfaction and that the Bond may be released by Surety.
3. In the event of default by the Principal, Obligee shall deliver to Surety by certified mail, a written statement of the facts of such default, within thirty (30) days of the occurrence. In the event of default, the Surety will have the right and opportunity, at its sole discretion, to either cure the default; or to tender to the Obligee funds sufficient to pay the cost of completion less the balance of the Contract price up to an amount not to exceed the penal sum of the bond. In no event shall the Surety be liable for fines, penalties, liquidated damages, or forfeitures assessed against the Principal.
4. No claim, action, suit or proceeding, except as hereinafter set forth, shall be had or maintained against the Surety on this instrument unless same be brought or instituted upon the Surety within one year from termination or expiration of the bond term.
5. No right of action shall accrue on this bond to or for the use of any person or corporation other than the Obligee named herein or the heirs, executors, administrator or successors of Obligee.
6. The aggregate liability of the surety is limited to the penal sum stated herein regardless of the number or amount of claims brought against this bond and regardless of the number of years this bond remains in force.
7. If any conflict or inconsistency exists between the Surety's obligations or undertakings as described in this bond and as described in the underlying document, then the terms of this bond shall prevail.
8. Nothing in this bond shall be construed to waive, release, or otherwise modify in any way the rights and obligations of Obligee or Principal under the Bond Agreement or any of the terms or conditions of the Bond Agreement.
9. This bond shall not bind the Surety unless the bond is accepted by the Obligee. The acknowledgement and acceptance of this bond is demonstrated by signing where indicated below. If this obligation is not accepted by way of signature of the Obligee below, this bond shall be deemed null and void.

Signed and sealed this _____ day of _____, 2020.

PRINCIPAL:

_____ (seal)

(name & title)

SURETY:

Surety Company (seal)

Attorney-in-Fact

THE ABOVE TERMS AND CONDITIONS OF THIS BOND HAVE BEEN REVIEWED AND ACCEPTED BY THE (OBLIGEE).

ACKNOWLEDGED AND ACCEPTED BY OBLIGEE:

BY: _____

PRINTED NAME/TITLE: _____

DATE: _____

PLEASE RETURN A COPY OF ACCEPTED BOND TO: