



SOLAR DECOMMISSIONING EVALUATION & COST ESTIMATE

Fearing Hill Road Solar Project

Wareham, Massachusetts

ADE Project 3055.02

May 17, 2021

Revised June 9, 2022

This Decommissioning Plan Evaluation has been prepared for the proposed Fearing Hill Road Solar Project located in Wareham, Massachusetts on behalf of Wareham MA 3, LLC. (the 'Client'). This evaluation has been prepared to estimate the costs to remove the physical components of the proposed project and restore the Site to a stable condition in accordance with Section 595 of the Wareham Zoning Bylaws. As per the Planning Board's recent request and the provisions of Section 595.3, this assessment now (i) includes "a mechanism for calculating and adjusting the increased value of the surety removal costs due to inflation," and (ii) does not account for salvage values associated with materials. Please note this evaluation has been completed based upon the plan entitled "Site Development Plans for Fearing Hill Road Solar Project" drafted by Atlantic Design Engineers Inc. (Atlantic) and dated May 17, 2021.

Upon abandonment or discontinuation of use, the facility owner shall be responsible for physical removal of the Solar Facility following the date of abandonment or discontinuation of use. Based on design criteria at the Site, the definition of "physical removal" shall include, but not be limited to, the following:

1. Contact with local Electrical Distribution Company and schedule a date for shutdown and disconnection from the utility grid as well as provide notice to the Town of such.
2. Removal of the solar modules, perimeter fencing, supporting structures, foundations, electrical equipment, utility poles and electrical connections. All other equipment, equipment shelters and vaults, security barriers and appurtenant structures shall be removed from the Solar Facility site. Inverters, transformers and the switchgear will be removed from their concrete pads and the pads will be removed as well.
3. The removal of the solar racking post or screw-hole foundations will be completed in a manner that minimizes impacts to site stabilization. For planning purposes, Atlantic has provided separate costs estimates for the removal of only the above grade portions of the solar racking foundation and for the complete removal of all subsurface foundations. The method of foundation removal will be determined by the project proponent at the time of decommissioning.

4. Proper disposal of all solid or hazardous materials and wastes (if any) from the site in accordance with local and state solid/hazardous waste disposal regulations,
5. Restoration of the location of the Solar Facility site through the removal of all solar components and seeding of disturbed areas. This assessment assumes the gravel access drive and the detention basins may remain.

Please refer to the Decommissioning Estimate Calculation Sheet attached as **Exhibit A** for an item-by-item breakdown of the costs associated with the decommissioning of the proposed Fearing Hill Road Solar Array. As per the Planning Board's recent request, the salvage estimate of materials or equipment of value has not been included within the attached calculations. Materials of potential salvage/reuse value include but are not limited to copper wiring, aluminum, and steel. Racking materials and fencing will be pulled from the ground, folded for transport and potentially sold to a scrap yard.

The facility owner will be responsible for all decommissioning costs and will obtain all permits or approvals required by the Town prior to commencing decommissioning work.

As shown on **Exhibit A**, the estimated decommissioning costs in Year 1 are \$185,750.40, assuming that solar racking foundations will be completely removed and, if it is determined that removing the racking foundations will destabilize the site, \$179,450.40, assuming that solar racking foundations will be removed to ground level. In order to meet the Financial Surety requirements of Section 595.3, the facility owner will post a Decommissioning Bond in an amount equivalent to 125 percent of the higher estimate (\$185,750.40) or \$232,188.00.

The estimated decommissioning costs shall be reviewed at five-year intervals and adjusted for actual inflation that may have occurred during the interval. For example, the dollar had an average inflation rate of 3.36% per year between 2017 and today, producing a cumulative price increase of 17.95% for the last five years. If the next five-year interval from 2022 to 2027 has the same cumulative 17.95% inflation rate, the Decommissioning Bond amount shall be increased by 17.95% ($\$232,188 \times .1795 = \$41,677.75$) in 2027 to \$273,865.75.

If, as a result of each five-year re-calculation, the estimated decommissioning costs increase, the facility owner will increase the Decommissioning Bond amount accordingly and provide the new Decommissioning Bond to the Town.

The facility owner will provide a Decommissioning Bond in the above-mentioned amount of \$232,188.00, in the form attached as Exhibit B, as a condition to receive the Building Permit.

Please note that the method of foundation removal shall be determined by the project proponent at the time of decommissioning. The project company will provide a Decommissioning Bond, in the form attached, as a condition to receive the Building Permit.

Please feel free to reach me at (508) 888-9282 if you have any questions.

Very truly yours,

ATLANTIC DESIGN ENGINEERS, INC.

A handwritten signature in black ink, appearing to read 'Rich Tabaczynski', written in a cursive style.

Richard J. Tabaczynski, P.E.
Vice President

DECOMMISSIONING ESTIMATE CALCULATION SHEET

Exhibit A

Fearing Hill Road Solar Project Decommissioning Estimate

Wareham, MA

May 17, 2021

Revised: June 9, 2022

System Information Summary	
Total System Module Count	15498
Total System Inverter Count	~38
Racking Orientation	2 Up Vertical
Linear Feet of Racking	11620.2
Estimated Aluminum per Foot of Racking (lbs)	2
Estimated Steel Per Foot of Racking (lbs)	4.5
Estimated Length of Interconnection to Street (feet)	527
Anticipated Project Lifestpan for Inflation Calcuation (years)	25

Decommissioning Summary	
Estimated Business Days to Demolish (8 Man Crew - Rate of 300 modules, 2 Inverters & 500 Linear Feet of Racking/Day)	46
Estimated Total Number of 40 Yard Dumpsters (400 Modules/2INV/Miscellaneous Debris Per Container)	39
Dumpster Disposal Cost (\$650 per Container)	\$ 25,350.00
Cost for Demolition Crew (\$225/Day/Member)	\$ 82,800.00
Heavy Equipment (\$950/Day)	\$ 43,700.00
Solar Racking Foundation & Utility Pole Removal - Assuming the complete removal of solar racking foundations - including subsurface (8 Man Crew/10 Days)	\$ 18,000.00
Solar Racking Foundation & Utility Pole Removal - Assuming racking foundation removal to ground level only - if site conditions necessitate (8 Man Crew/6.5 Days)	\$ 11,700.00
Perimeter Fencing - Including removal of footings for posts (\$1.50/foot for ±4,332 feet of fencing)	\$ 6,498.00
Estimated Mobilization & Site Repair - Includes revegetation of site (5% of Costs)	\$ 9,402.40
Total Current Day Decommissioning Estimate - Assuming that solar racking foundations will be removed to ground level	\$ 179,450.40
Total Current Day Decommissioning Estimate - Assuming that solar racking foundations will be completely removed	\$ 185,750.40

DECOMMISSIONING BOND FORM

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, Wareham MA 3, LLC as Principal, and _____, licensed to do business in the State of _____, as Surety, are held and firmly bound unto the Town of Wareham, Massachusetts (Obligee), in the penal sum of One Hundred Eighty-Five Thousand Seven Hundred Fifty Dollars and Fifty Cents (\$187,750.50), lawful money of the United States of America, for the payment of which sum, well and truly to be made, the Principal and Surety do bind themselves, their heirs, executors, administrators, and successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the above bounden Principal has entered into a certain written Contract with the above named Obligee entitled _____ effective the _____ day of _____, 2022 and terminating twenty-five (25) years after "Commercial Operation Date" _____, as defined in and more fully described in said Contract, which Contract is made a part hereof and incorporated herein by reference, except that nothing said therein shall alter, enlarge, expand or otherwise modify the term of the bond as set out below. Under said Contract, Principal is obligated to remove the Project from, and to restore, the Property as defined in Section ____ and to provide "Decommissioning Security" in accordance with the terms and conditions of Section _____ of the Contract.

NOW, THEREFORE, if Principal, its executors, administrators, successors and assigns shall promptly and faithfully perform the Contract according to the terms, stipulations and conditions of Section _____ of the Contract, then this obligation shall become null and void, otherwise to remain in full force and effect. Surety waives any right to receive any notice of any modifications or amendments to the Contract. This bond is executed by the Surety and accepted by the Obligee subject to the following express condition:

Notwithstanding the provisions of the Contract, the term of this bond shall apply from (first annual period) _____, 2022 until _____, 2047, and may be extended by the Surety by Continuation Certificate. However, neither nonrenewal by the Surety, nor the failure or inability of the Principal to file a replacement bond in the event of nonrenewal, shall itself constitute a loss to the Obligee recoverable under this bond or any renewal or continuation thereof, provided that the foregoing shall not relieve Principal of its obligation to furnish a replacement bond or other suitable "Decommissioning Security" in the event of nonrenewal, as set forth in the Contract, nor for any liabilities arising from its failure to do so. The liability of the Surety under this bond and all continuation certificates issued in connection therewith shall not be cumulative and shall in no event exceed the amount as set forth in this bond or in any additions, riders, or endorsements properly issued by the Surety as supplements thereto.

Sealed with our seals and dated this _____ day of _____ 2022.

(Principal) (Seal)

(Witness)

(Title)

(Surety)

(Attest)

(Attorney -in-Fact)