

# Solar Decommissioning Template

## ADOPTED AS A

### BOARD OF PLANNING AND COMMUNITY DEVELOPMENT RULE AND REGULATION

FEBRUARY 8, 2018

As part of any application for approval of Ground-Mounted Solar Photovoltaic Installations, applicants are required to provide a form of surety in accordance with the process outlined in Section 3.24.12.3 of the Athol Zoning Bylaw. Below is a list of labor rates and equipment rates that are to be used in calculating the total cost of Decommissioning the ground-mounted solar photovoltaic installation site. The labor (and equipment) rates are based on the prevailing wages for the Athol area. For more information, please visit the Mass. Department of Labor Standard's Prevailing Wage Program website at: <https://www.mass.gov/prevailing-wage-program>

General Labor	\$50 per hour	or \$2000 per week
Trucking Cost	\$110 per hour	or \$4400 per week
Bobcat Cost	\$31.25 per hour	or \$1250 per week
Grader Cost	\$100 per hour	or \$4000 per week
Front End Loader/Excavator Cost	\$135 per hour	or \$5400 per week
Backhoe Cost	\$160 per hour	or \$6400 per week

The General Labor rate is a guideline. If prevailing wage rates are higher than that figure is the labor rate that should be used. Conversely if prevailing wage rates are lower than they can be used subject to proof of State prevailing wage rate data. For General Labor, the amount shown does include health care and pension expenses.

Below is a list of typical Decommissioning tasks that are to be performed. Depending on the site construction the actual tasks performed may differ from the list shown. All tasks are to be prepared by a qualified engineer. Also, recycling shall be neutral. Costs such as disposal or tipping fees shall be covered by the value of the disposed equipment. Nothing gained or lost. Therefore, the decommissioning cost shall be determined by the cost of dismantling and loading the site materials in addition to the trucking costs.

- Remove Rack Wiring
- Remove Cable
- Remove Panels
- Dismantle Racks
- Remove and Load Racks plus Trucking
- Remove Electrical Equipment plus Trucking
- Breakup and Remove Concrete Pads and Ballasts
- Remove Power Poles
- Remove Fence plus Trucking
- Grading
- Seed Disturbed Areas
- Additional Trucking Costs (Panels, Concrete, etc) plus fuel.

Note: It has been determined that no disconnect fee needs to be paid to the Electric Company, National Grid.

Each task within the Decommissioning process provided to the Planning Board shall have a very short description of the task. Following the description there shall be a formula for the task. Then the formula shall be used to determine the final cost for the task as in the example shown below.

Remove Panels task:

Description --- ----The panels are clamped in. They slide in a rack. A laborer needs to unclamp the panel and reach over and slide the panel out of the track. It takes approximately 3 minutes to remove each panel. There are 15,000 panels.

Formula --- number of panels divided by 20 times the General Labor Rate  
--- 15,000 divided by 20 times \$50 = \$37,500

At the end of the document all of the costs shall be added up as in the example shown below. Also, the inflation adjusted amount after 20 years shall be shown. The example is for a 5 mW system.

Total Decommissioning costs based on an example 5 Mw system.

Remove Rack Wiring	\$ 8,274
Remove Cable	\$12,256
Remove Panels	\$37,500
Dismantle Racks	\$13,790
Remove and Load Racks plus Trucking	\$51,570
Remove Electrical Equipment plus Trucking	\$8,572
Breakup and Remove Concrete Pads and Ballasts	\$2,720
Remove Power Poles	\$3,000
Remove Fence plus Trucking	\$19,443
Grading	\$3,000
Seed Disturbed Areas	\$810
Additional Trucking Costs (Panels, Concrete, etc) plus fuel	\$14,700
Total Cost	\$175,635
Total Cost after 20 years at 2.5% inflation Rate	\$287,798

Note: The inflation calculation uses compounded interest. In addition, the Board of Planning and Community Development reserves the right to increase the financial surety amount up to 125% of the cost of removal based on the decommissioning estimate in accordance with Section 3.24.12.3 of the Athol Zoning Bylaw.

The initial estimate amount provided by the Applicant with the Application submission shall be reviewed by the DPW and/or Planning Board Peer Reviewing Engineer (if any). The Applicant shall pay for the cost of this review with such payment being provided by the applicant prior to issuance of a decision by the Planning Board. The surety agreement shall be established prior to issuance of Building Permit

Note: The surety can either be the final 20-year value or it can be renewed each year at that year's amount. If the surety is received at the new amount each year, a system needs to be in place to ensure that the new surety is received each year. Also, if the surety is to be renewed each year then each year's amount is to be shown in the decommissioning document.

Note: The labor and equipment rates shall be reviewed every three years by the DPW and Planning Board Peer Reviewing Engineer (if any). Also, the recycling market shall be reevaluated every three years. If the DPW or the Planning Board's Peer Review Engineer recommends that a change is required then this document will be modified. Included in the review, if there is a significant increase to the inflation rate, the Board reserves the right to set a higher inflation rate to determine the total Decommissioning costs over 20 years.

The review does not affect already installed solar installations.

The Board of Planning and Community Development, February 8, 2018