

DiPrete Engineering

**DECOMMISSIONING COST ESTIMATE - MAIN STREET SOLAR, HOPKINTON, RI (8.25 MW AC)
REVITY ENERGY**

Item Description	Unit	Quantity	Unit Cost	Extended Cost	Comments
1 Equipment Removal					
1.1 Utility Disconnect from Grid	lump sum	1.00	\$3,000	\$3,000	Includes removal of wire, poles, transformers, appurtenances, with all equipment retained by utility. Service truck \$26.77/hr, Loader/Backhoe \$37.00/hr. Laborers (10) \$20/hr. = \$2,110 per day Service truck \$26.77/hr, Loader/Backhoe \$37.00/hr. Laborers (10) \$20/hr. = \$2,110 per day Service truck \$26.77/hr, Loader/Backhoe \$37.00/hr. Laborers (10) \$20/hr. = \$2,110 per day Assumes 135,000 lbs of racking equipment per MW. 8.25 MW x 135,000 lbs = 557 Tons x \$200 per ton = \$111,400 (only accounted for 50% of salvage) 625,000 lf of Copper Wire X 30 lb per 1000 lf = 18,750 lbs of copper wire x \$1.70/lb scrap value = \$31,875. (50% used) Assume hauled off with salvage at least of aluminum frames and landfill disposal of remaining materials as non-hazardous solid waste (Crystalline panels). 20,770 panels @ 50 lbs. each
1.2 Removal/Salvage of Inverters	lump sum	1.00	\$5,000	\$5,000	
1.3 Removal of Conduit Runs	crew days	14	\$2,110	\$29,540	
1.4 Removal of Solar Panels	crew days	38	\$2,110	\$80,180	
1.5 Remove Racks/Cable Trays and Haul Steel and Aluminum Away for Salvage	crew days	38	\$2,110	\$80,180	
1.6 Salvage of Racks and Cable Trays	ton	557	(\$200)	(\$55,700)	
1.7 Salvage - Wire/Other	lump sum	1	(\$15,937)	(\$15,937)	
1.8 Salvage/Dispose of Solar Panels	ton	520	\$25	\$13,000	
Task 1 Total (Equipment Removal)				\$139,263	
2 Site Restoration					
2.1 Labor	weeks	2.0	\$11,000	\$22,000	Assume 10 man crew, \$20/hr, 40 hours/wk, \$8,000/wk plus equipment cost for total of \$11,000/wk Applies to the minimal areas disturbed by the decommissioning work. Assume existing soils capable of supporting vegetation are available to re-grade under item 2.2, and no additional topsoil is needed. Assume minor repairs needed at access road areas, by regrading existing material. Assume revision of existing CAD drawing showing the final restored site.
2.2 Seeding, Fertilizer	acres	7.0	\$1,000	\$7,000	
2.3 Minor Erosion Repairs	lump sum	1	\$9,500	\$9,500	
2.4 Final As-Built Survey Map	lump sum	1	\$10,000	\$10,000	
Task 2 Total (Site Restoration)				\$48,500	
3 Engineering Oversight and QA/QC					
3.1 Resident Engineer/Inspector and Engineering Project Management	days	12	\$1,000	\$12,000	Assumes 1 day per week for inspections and oversight
3.2 Final Engineer's Report (RI PE)	lump sum	1	\$1,500	\$1,500	
3.3 Infiltration system maintenance	annual cost	3	\$3,000	\$9,000	
Task 3 Total (Engineering Oversight and QA/QC)				\$22,500	
CAPITAL COST SUBTOTAL				\$210,263	
Contingency (10.0% of Capital Cost Subtotal)				\$21,026	
TOTAL CAPITAL COST ESTIMATE				\$231,289	

NOTES:

- Costs shown above are based on conceptual design assumptions, and are considered suitable for overall project evaluation. Actual costs are expected to vary from these conditions due to scope details, market conditions, and conditions at the time of work completed.
- Costs assume fencing to remain in place, roadways to remain in place, and all drainage components in place to control stormwater runoff.
- To be invested in an interest being account. See attached 30 year for future projected balance.
- Costs to be adjusted based upon final MW of system.

DiPrete Engineering
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RI PE License #11355



Main St Decommissioning Extrapolation	
<u>US Corporate AAA Effective Yield*</u>	3.39%
Year	Balance
0	\$231,289 **
1	\$239,130
2	\$246,970
3	\$254,811
4	\$262,652
5	\$270,492
6	\$278,333
7	\$286,174
8	\$294,015
9	\$301,855
10	\$309,696
11	\$317,537
12	\$325,377
13	\$333,218
14	\$341,059
15	\$348,899
16	\$356,740
17	\$364,581
18	\$372,422
19	\$380,262
20	\$388,103
21	\$395,944
22	\$403,784
23	\$411,625
24	\$419,466
25	\$427,306

Notes:

*Source: U.S. Department of the Treasury, 25-Year High Quality Market (HQM) Corporate Bond Spot Rate [HQMCB25YR], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/HQMCB25YR>, July 6, 2020. As interest and coupons accumulate, both can be reinvested as well.

**Per DiPrete Engineering's Independent Decommissioning Calculation dated October 21, 2020.

*** In year 25, the per MW cost is \$51,795.



October 19, 2020

Reivity Energy
117 Metro Center Boulevard – Suite 1007
Warwick, RI 02886

Attention: Lindsay McGovern
lindsay@reivityenergy.com
401-280-0553

Re: Main Street Hopkinton: Budget Cost Estimate for Solar Field Removal

Hi Lindsay,

As discussed please see the attached breakdown of our estimated cost per acre to remove and dispose solar equipment.

LIST OF CONDITIONS:

General Assumptions & Inclusions: J.R. Vinagro Corporation will furnish equipment and labor necessary to complete the following:

Total for Site Work Services as Described Below:

1. CAT 345 with Pulverizer and Operator: 1.5 ACRES/DAY at \$3,133.52/DAY= \$2,089.01/ACRE
 2. 2 Laborers Un-bolting and Cutting Wires: 0.75 ACRES/DAY at \$1,224.32/DAY= \$1,632.43/ACRE
 3. 2 Laborers Removing/ Stacking Panels: 0.75 ACRES/DAY at \$1,224.32/DAY= \$1,632.43/ACRE
 4. Track Skidsteer with Operator Assisting: 0.75 ACRES/DAY at \$1,005.52/DAY= \$1,340.69/ACRE
- Total: \$6,694.56/ACRE**

Panel Area of 17.0 ACRES X \$6,694.56/ACRE=.....Grand Total: \$113,807.52

Salvage Value of Metals, Excluding Panels: \$100.00/TON

Disposal Cost of Panels: \$100/TON

Respectfully,

JR Vinagro Corporation

Joseph T. Godino, P.E.
Estimator