

PRELIMINARY DECOMMISSIONING PLAN
CALVERTON SOLAR ENERGY CENTER
COORDINATES: 40.909216666,-
72.752358333
SUFFOLK COUNTY, LONG ISLAND
CALVERTON, NEW YORK

This Preliminary Decommissioning Plan was developed to depict the probable effort required to return the project site to existing conditions. The Engineer of record will certify the final plan and budgetary value.

Table of Content

Introduction 2

Decommissioning Plan 3

 Anticipated Operational Life of Solar Array 3

 Implementation Plan 3

 Estimated Cost of Decommissioning 3

 Financial Assurance..... 4

Historical and current metals pricing trends..... 6

 Basis of Estimate: Current Day..... 8

Introduction

The Calverton Solar Energy Center (Project) in the Town of Riverhead, Suffolk County, New York will be located on two proximate but physically separated parcels totaling approximately 200 acres under Option to Purchase Agreements with private landowners. The Calverton Solar Energy Center was a selected project as a result of the PSEG-LI 2015 Renewable Request for Proposal (2015 Renewable RFP) issued on December 22, 2015 to increase the renewable energy capacity and generation on Long Island.

Calverton Solar, LLC has developed a decommissioning plan (Plan) for the proposed 22.9-MW ground-mounted solar electric generation facility, including decommissioning budgets for each major component of the Project.

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

1. Ground mounted solar arrays
2. The collector line
3. The collection substation
4. Interconnecting roads

Decommissioning Plan

For decommissioning, the Project shall:

- Be responsible for all decommissioning costs;
- Commence work decommissioning, removing, and legally disposing Project components;
- Remove and dispose of all above-ground infrastructure, including arrays and inverter structures
- As needed, acquire permits and develop storm water pollution prevention plans to remove concrete foundations and pads, and fences, grading and completion of ground stabilization using revegetating or other means in accordance with permits and in compliance with all applicable rules and regulations then in effect governing;
- Removed materials shall be recycled and/or salvaged to a reasonable extent practical and all waste streams shall be managed in accordance with the State's and local authority's waste hierarchy.

Anticipated Operational Life of Solar Array

Typically, solar modules (panels) have a useful life of approximately 30 years. The Applicant will construct the solar arrays on purchased lands controlled by varying agreements (e.g. easement or purchase option). Based on these terms, it is anticipated that the array will be operational for 30-years.

Implementation Plan

The decommissioning will include disassembly and removal of above-ground structures, removal of subsurface structures to a minimum depth of 24 inches below grade, and re-grading and re-seeding of disturbed areas. At the time of decommissioning, a plan will be submitted for continued beneficial use of any components to be left on site. Asphalt portions of roads will be removed and disposed, gravel roads will be left in place. A professional salvaging company will be contracted to disassemble, remove, and recycle major Project components and materials.

Estimated Cost of Decommissioning

The estimated cost of decommissioning the Project is approximately \$1,116,300 and assumes project components will be sold, salvaged, or recycled to the maximum extent practicable. The tables below provide a breakdown of decommissioning budgets by major project components.

Ground Mounted Solar Array Decommissioning				
Description	Quantity	Unit	Total	Assumptions
Loam, Seed, and Mulch Access Drives	1	LS	\$15,000	No material export anticipated. Roads to be smoothed for positive drainage ripped and seeded
Solar Module Removal	1	LS	\$205,000	Approximately 82,824 modules
Steel Structural Disassembly	1	LS	\$305,000	Fixed-tilt racks
Fence Removal	1	LS	\$92,500	\$4/LF labor for removal, less \$0.1/lb. scrap value.
DC Collector Line Removal	1	LS	\$307,500	Scaled cost estimate
Inverter Skid & Equipment Removal	13	Ea.	\$143,000	\$5K per each inverter/transformer pair and \$6K to remove and dispose of Skids
SUBTOTAL			<u>\$1,068,000</u>	

Substation Decommissioning				
Description	Quantity	Unit	Total	Assumptions
Remove Substation Base and stabilize with Loam, Seed, and Mulch.	1	LS	\$8,000	\$9/cy for material export. Area to be smoothed for positive drainage and vegetated.
Substation Equipment Removal	1	LS	\$0	It is assumed that the substation equipment resale/scrap value will approximately equal the labor required to decommission.
Fence Removal	1	LS	\$2,500	\$4/LF labor for removal, less \$0.1/lb. scrap value.
SUBTOTAL			<u>\$10,500</u>	

Power Decommissioning				
Description	Quantity	Unit	Total	Assumptions
Disassembly of electric components and lines	1	LS	\$10,800	
Remove and dispose of poles; fill holes.	1	LS	\$10,000	
SUBTOTAL			<u>\$20,800</u>	

Collection Decommissioning				
Description	Quantity	Unit	Total	Assumptions
Disassembly of electric components and lines	1	LS	\$12,000	
Remove and disposal; fill holes.	1	LS	\$5,000	
SUBTOTAL			<u>\$17,000</u>	

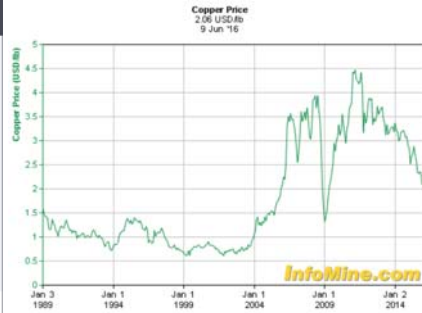
Financial Assurance

The Applicant will demonstrate financial assurance and if not will provide a performance bond, surety bond, or letter of credit prior to the start of decommissioning.

Historical and current metals pricing trends.

Latest Pricing Trends Year Over Year	
316 solids, clips	-21.51%
No.1 heavy melt	-14%
SBQ 1000	-12.16%
Shredded auto scrap	-9.09%
US rebar	-6.9%
Lead battery scrap	0%
Bushling index	1.78%
Molybdenum	6.98%
Domestic UBC	8.93%
Hot-dipped galvanized	35.82%

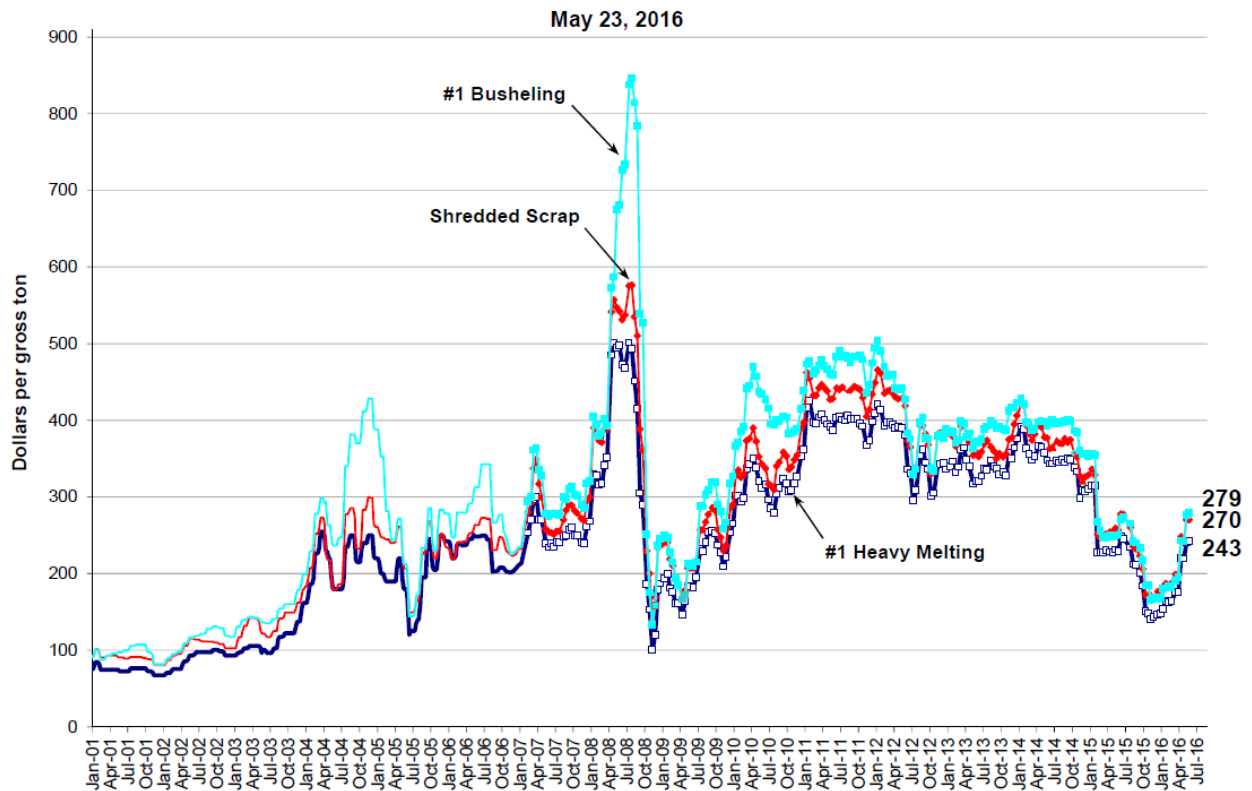
Year-over-year as of 06/10/2016



SteelBenchmarker™ Scrap Price

USA, delivered to steel plant

(AMM scrap price data, Jan. 2001 - Jan. 2007; SteelBenchmarker data begins Feb. 2007)



Basis of Estimate: Current Day

- Limited foundation removal to 2 feet below grade and concrete is adequate for fill or recycling.
- No fill brought on site
- Waste removal e.g. is limited to modules
- All equipment on site is included in the dismantlement either as salvage or potential cost offset
- Includes all mobile equipment as an offset
- All general waste has been gathered up in a central location by plant personnel
- All stored lubricants have been brought to a central location by plant personnel
- Excludes plant personnel salaries, incentives, benefits and other discharge costs
- Dismantlement may be achieved by any optimal means
- Excludes utilities costs e.g. sewage, potable water, electrical power, IT network