Decommissioning
54 South St, Morris CT

Abandonment and Decommissioning/Removal
When operation of the proposed solar facility has been discontinued or the facility has been decommissioned, abandoned or has reached the end of its useful life, the Applicant/Owner plans to remove the facility within 150 days of discontinued operations. The Applicant/Owner will notify the Council and appropriate Town of Morris officials of the proposed date of discontinued operations and will provide plans for removal. In the event of major damage, Applicant/Owner plans to initiate repairs within 30 days of the damage. Major damage means damage to the facility caused by no fault of the Applicant/Owner.

Decommissioning consists of physical removal of all facility components, such as solar arrays, equipment (e.g. batteries, inverters, and transformers), structures, security barriers and fencing, facility signage and transmission lines from the site. In addition, Applicant/Owner will dispose of all solid and hazardous waste in accordance with all applicable regulations. Decommissioning will also include restoration of the site. Applicant will stabilize and re-vegetate the site as necessary to minimize erosion. If desired, Applicant/Owner would seek Council approval to leave landscaping or specified below-grade foundations in order to minimize erosion and site disturbance.

The Applicant/Owner has provided a fully inclusive estimate of the costs associated with removal. The amount includes an escalator for calculating increased removal costs due to inflation.

Decommissioning Costs
Key assumptions include the fact that fencing, electrical cabinetry, solar racks, solar panels, wiring and all other equipment are one hundred percent recyclable, therefore, the primary cost of decommissioning is the labor to dismantle and load as well as the cost of trucking. The concrete pads will be broken up at the site and hauled to a nearby facility where it will be accepted, most likely without charge. The following items from the array will be recycled, and many of these will have a salvage value in 20 years:

- 9,290 Solar Panels
- 40 Inverters (125kw)
- 2 Transformers
- 16,849 Linear Feet of Racking (883 Racks @ 28')
- 6,129 Linear Feet of Fencing
- 1,262 Linear Feet of Cable
- 5 Utility Poles

The estimated cost is based on the following:

- Bobcat cost at $250/day, labor at $28/hour
- Trucking cost at $72/hour
- Backhoe cost at $1,000/week
- Grader cost at $2,500/week
- Front end loader/excavator cost of $1,000/week.

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Labor / Materials / Equipment Costs

1. Remove Panels:

Panels are clamped in on a sliding track. A laborer will unclamp each panel and slide it out of the rack.

Panel Removal Rate x Total Number of Panels x Labor Rate = Removal Cost

1 min/panel x 9,290 panels x (1hr/60min) x $35/hr =

Total = $5,419.16

2. Remove Rack Wiring

Electrical wires lay in a tray. A laborer will reach into the tray and remove the strands of wire.

Panel Removal Rate x Total Number of Panels x Labor Rate = Rack Wiring Removal Cost

1 min/panel x 9,290 panels x (1hr/60min) x $35/hr = **$**

Total = $5,419.16

3. Dismantle Racks (For Removal)

Total Number of Racks x Rack Removal Rate x Labor Rate = Rack Dismantling Cost

910 Racks x 30 min/rack x $35/hr x (1hr/60min) = **$**

Total = $15,925

4. Remove and Load Electrical Equipment (Includes Transformers and Inverters)

Total Number of units: 2 Transformers + 40 Inverters = 42 Units

Elec. Equip. Removal Rate x Total Units x (Labor rate+Bobcat Cost+Trucking Cost) = Total Elec. Equip. Removal Cost

1 Unit/hr 42 Units x ($35/hr + $31/hr + $72/hr) = $

Total = $5,796

5. Break Up Concrete Pads:

Using an excavator and Jackhammer:

2 days x (Front end loader/excavator cost + Labor Cost) = total Concrete Pad Removal

2 days x [($135/hr) + $35/hr] =

Total = $2,720.00

6. Load Racks

Total racks x Rack Removal Rate (Labor Cost + Bobcat Cost + Trucking Cost) = Total Load Rack Removal

910 Racks x 20 min/rack x (1hr/60min) ($35/hr + $39/hr + $72/hr) =

Total = $44,286

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7. Remove Cable:

Total Cable Linear Footage x Cable Removal Rate x (Labor Cost + Bobcat Cost) = Total Cable Removal Cost

1,262 ft. x 4min/ft x (1hr/60min) x ($35/hr + $39/hr) =
$ **Total = $6,225.86**

8. Remove H Beams and Power Poles:

[(*Total Number of Racks / Rack Removal Rate) x (Labor Cost + Excavator Cost) + [Total Number of poles x Pole Removal Rate] = Total H Beam and Power Pole Removal Cost*

[(910 Racks / 100 Racks/Day) x ($35/hr + $25/hr)] + (5 Poles x $500/Pole) =
Total = $9,052

9. Remove Fence:

Total Fence Length x Fence Removal Rate x (Labor Cost + Bobcat Cost + Trucking Cost) = Total Fence Removal Cost

6,129 ft x 2min/ft x (1hr/60min) x ($35/hr + $59.25/hr + $72/hr)
Total = $33,964.87

10. Grading:

Rough Grading (Days x Grader Cost) + Fine Grading (Days x Grader Cost) = Total Grading Cost

(3 Days x $2,500/week) + (1 Day x $2,500/week) =

Total = $10,000

11. Seed Disturbed Areas:

Reseeding Time x Labor Cost = Total Seeding Disturbed Area Cost (Includes Cost of Seed at $x)

24 hr x $35/hr =
Total = $840

12. Trucking:

Total Truckloads @ 2hr each x $72/hr =

60 truckloads @ 2hrs x $72/hr =
Total = $8,640

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Task	Estimated Cost
Remove Panels	$ 6,419.18
Remove Rack Wiring	$ 6,419.18
Dismantle Racks	$ 15,925
Remove and Load Electrical Equipment	$ 5,796
Break Up Concrete Pads	$ 2,720
Load Racks	$ 44,286
Remove Cable	$ 6,225.86
Remove H Beams and Power Poles	$ 9,052
Remove Fence	$ 33,964.87
Grading	$ 10000
Seed Disturbed Areas	$ 840.00
Additional Trucking	$ 8,640.00
Total	**$ 150,288.09**
Total After 20 Years (2.5% Inflation)	**$ 154,045.292**

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