

MMM - 20 kW Solar Power System, No Tracking

Return on Investment Analysis - First 10 Years

Direct Purchase - Commercial Sale in New York with Net Metering

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Cash Out												
20 kW SPS Purchase Price	-64000	0	0	0	0	0	0	0	0	0	0	-64000
O & M costs *	0	0	0	0	0	0	0	0	0	0	0	0
Total Cash Out	-64000	0	0	0	0	0	0	0	0	0	0	-64000
Cash In												
Federal Solar Rebate	0	0	0	0	0	0	0	0	0	0	0	0
State Solar Rebate	20000	0	0	0	0	0	0	0	0	0	0	20000
Local Solar Rebate	0	0	0	0	0	0	0	0	0	0	0	0
Federal 30% Tax Credit	0	13200	0	0	0	0	0	0	0	0	0	13200
Depreciation	0	2618	3590	2513	1508	1508	754	0	0	0	0	12492
SREC value	0	0	0	0	0	0	0	0	0	0	0	0
Grid Consumption Avoided	1098	2196	2283	2375	2470	2569	2671	2778	2889	3005	3125	27459
Grid Demand Charges Avoided	1560	3120	3245	3375	3510	3650	3796	3948	4106	4270	4441	39019
Total Cash In	22658	21134	9119	8263	7487	7727	7221	6726	6995	7275	7566	112170
Net Cash Flows												
Annual	-41342	21134	9119	8263	7487	7727	7221	6726	6995	7275	7566	48170
Y2Y, carry-over	-41342	-20209	-11090	-2827	4660	12387	19608	26334	33329	40604	48170	

Inputs & Assumptions

Solar Power System Capacity	20	kW rated system
Annual Energy Production	28,800	kWh / yr
Average monthly production	2400	kwh / month
Cost of Solar Power System	\$64,000	
Solar Incentives ...		
Federal Solar Rebate	0	
Federal Tax Credit	30%	ITC - Commercial and Residential
State Solar Rebate	\$20,000	\$1.00/watt for first 50 kW capacity per meter
State Tax Credit	\$0	
Local Solar Rebate	\$0	
Property Tax Exemption	100%	
Sales Tax Exemption	100%	
SREC Price	\$0	\$0=No SREC program available
Number of SRECs generated	NA	per yr, 1 SREC = 1000 kwh
Site Characteristics...		
Net Metering Capacity	100%	Percentage of Solar Power eligible for net metering.
Net Metering Retail Credit	100%	Percentage of retail price received when excess energy is sent to grid.
Projected monthly usage	3400	Monthly average kwh usage
Consumption charge / kWh	\$0.07624	Consumption charge = 95% of supply cost
Total Supply Costs / kWh	\$0.08025	12 month average for New York utility
Peak Monthly Demand	40.0	kw = Peak metered demand over any 15 minute interval
Demand charge per kW	\$6.50	per kW
Monthly Demand charge	\$260.00	Demand charge = 85% of Delivery charges.
Energy Inflation Rate	4.0%	Annual
Federal Tax Rate	35%	
Depreciation Term (years)	5	MACRs 5 year schedule, half-year convention table
Depreciation Cost Basis	37400	Basis = System Cost - Rebates - (Half of Federal tax credit, ITC/2)
O & M Costs per kWh *	0	Operational and Maintenance costs are fully covered by Mass Megawatts during the first 10 years.
1st year number of months	6	Number of months of solar power operation in first year

Results		
ROI	22%	(IRR)
Payback in Year	4	
Multiple	1.75	