

RENEWABLE ENERGY/WIND POWER COMMITTEE

ADDENDUM TO THE FINAL REPORT

In our final report, the Renewable Energy/Wind Power (REWP) Committee recommended a Photo Voltaic (PV) Solar installation for the Council On Aging (COA) roof. The recommendation was based on the expectation that the Department of Energy Resources (DOER) would, in the near future, formally announce a set of rules on virtual net metering (i.e. the location of the energy meter with regard to the PV Solar power supply) that would support our recommendation. The DOER has instead just issued a ruling governing the location of the energy meter which negatively impacts our recommendation.

The DOER ruling now requires the energy meter connection to be installed on the site side of the PV Solar energy meter which means that the least expensive electricity usage is displaced by the PV Solar installation. Our scenario H as stated in our report was based on the energy meter connection being installed on the distributor side of the PV Solar energy meter, which would then allow the town to designate energy displacement using the most expensive delivered energy. Scenario H shows a very positive result for such an installation.

The following new Scenario X has been prepared by our REWP Committee based on the Committee's recent understanding of the DOER regulations and the current rebates from the Massachusetts Technology Collaborative.

A comparison of all the conditions may be made by reviewing the two scenarios (H and X). In particular, scenario X has a lower rebate of \$5.35/watt as compared to \$5.50/watt for scenario H. In addition X has a lower avoided cost of \$0.14/kWh as compared to an avoided cost of \$0.17/kWh for H. Scenario X shows a \$7,790 out of pocket cost in year 16 as compared to no out of pocket costs in the scenario H (due to the cash flow not covering inverter replacement cost). Cash flow for scenario X turns positive in year 23, while cash flow was positive for scenario H during the life of the project.

At this time the committee feels that the town should concentrate on the installation of wind power and again confirms its recommendation for: a) the first turbine in the watershed, and b) town membership in the Cape and Vineyard Electric Cooperative (CVEC) for future opportunities. The REWP also recommended the establishment of a permanent energy committee for the detailed reasons stated, as well as for monitoring the changing environment for energy installations and savings. We also note that the proposed wind turbine, while fulfilling the needs of the water department, still leaves

about 20% of the current town usage to be provided by wind power from a second turbine.

Scenario H

Key

Entry Cells	
Cells Draw Data from Another Worksheet	
Calculation Cells (Not for Entry)	

Select Taxable or Non-Taxable Entity Non-Taxable

Project and Customer Cost Assumptions

Solar Photovoltaic System Size	14,760	Watts (DC STC)
Total System Cost/Watt	\$ 7.79	\$/Watt (DC STC)
Total System Cost	\$ 114,980	

MTC Rebate Assumptions

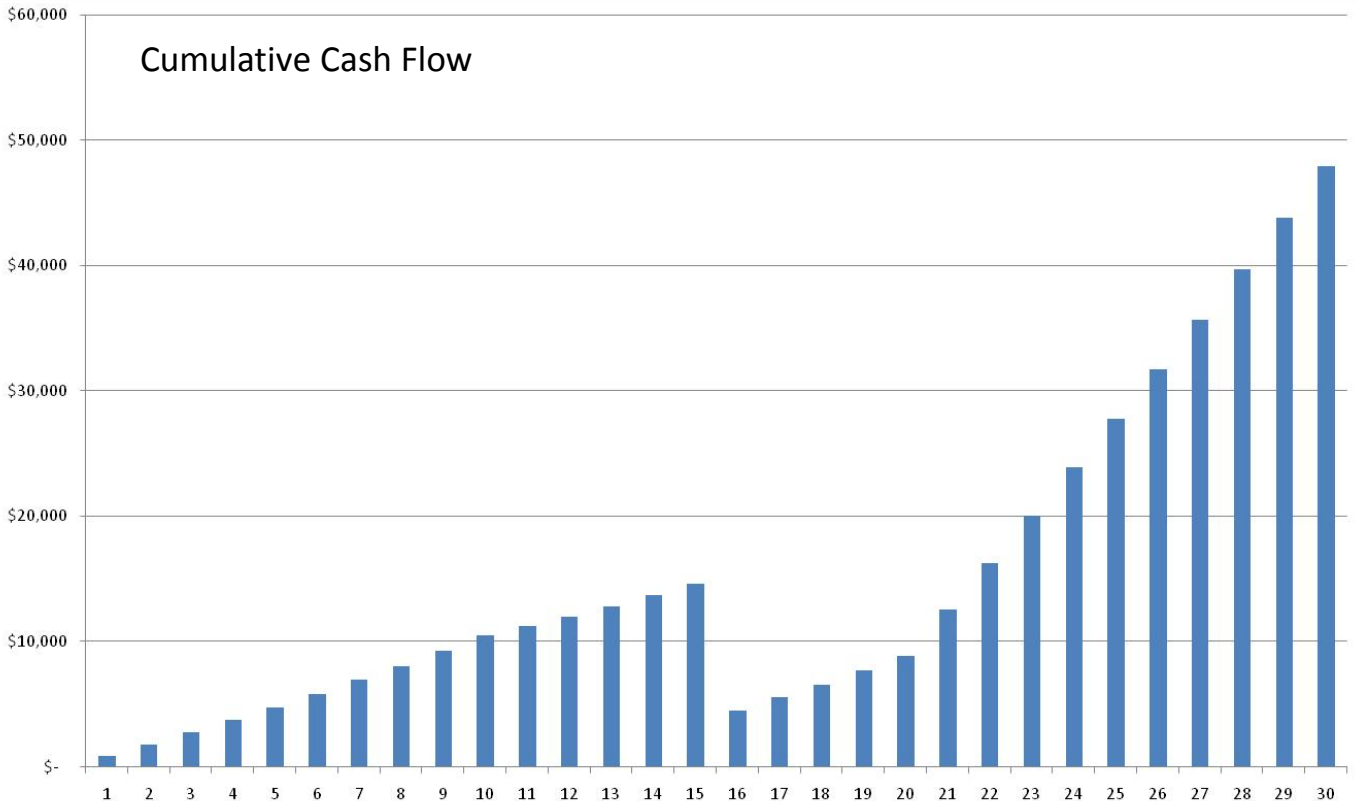
MTC Scenario A: Non-Taxable Rebate	\$ 5,500	\$/Watt (DC STC)
Scenario A Rebate	\$ 81,180	
MTC Scenario B: Taxable Rebate	\$ 5,500	\$/Watt (DC STC)
Scenario B Rebate	\$ 81,180	

Project Performance and Savings/ Cost Assumptions

Annual Net Capacity Factor	14.0%	kW (DC STC) to kWh AC
Annual Production Degradation	0.50%	%
Project Life	30	Years
Electricity Revenue (Avoided Costs)	\$ 0.17	\$/kWh
Electricity Revenue (Avoided Costs) Annual Adjustor	2.0%	%
Renewable Energy Certificate (REC) Revenue	\$ 0.03	\$/kWh
REC Revenue Annual Adjustor	0.0%	%
REC Revenue Term	10	Years (must be equal to or less than project life)
Annual Operations and Maintenance Cost	\$ 250	\$/Year
Annual Operations and Maintenance Adjustor	3.0%	%
Future Inverter Replacement Cost	\$ 0.75	\$/Watt (DC STC)
Inverter Life, Replace Every X Years	16	Year (must be equal to or less than project life)

Financing Assumptions

% Financed w/ Cash	0%
% Financed w/ Loan	100%
Loan Interest Rate	4%
Loan Period	20
Scenario A Net Cost	\$ 33,800



Scenario X

Key

Entry Cells	
Cells Draw Data from Another Worksheet	
Calculation Cells (Not for Entry)	

Select Taxable or Non-Taxable Entity Non-Taxable

Project and Customer Cost Assumptions

Solar Photovoltaic System Size	14,760	Watts (DC STC)
Total System Cost/Watt	\$ 7.79	\$/Watt (DC STC)
Total System Cost	\$ 114,980	

MTC Rebate Assumptions

MTC Scenario A: Non-Taxable Rebate	\$ 5,360	\$/Watt (DC STC)
Scenario A Rebate	\$ 78,966	
MTC Scenario B: Taxable Rebate	\$ 5,360	\$/Watt (DC STC)
Scenario B Rebate	\$ 78,966	

Project Performance and Savings/ Cost Assumptions

Annual Net Capacity Factor	14.0%	kW (DC STC) to kWh AC
Annual Production Degradation	0.50%	%
Project Life	30	Years
Electricity Revenue (Avoided Costs)	\$ 0.14	\$/kWh
Electricity Revenue (Avoided Costs) Annual Adjustor	2.0%	%
Renewable Energy Certificate (REC) Revenue	\$ 0.03	\$/kWh
REC Revenue Annual Adjustor	0.0%	%
REC Revenue Term	10	Years (must be equal to or less than project life)
Annual Operations and Maintenance Cost	\$ 250	\$/Year
Annual Operations and Maintenance Adjustor	3.0%	%
Future Inverter Replacement Cost	\$ 0.75	\$/Watt (DC STC)
Inverter Life, Replace Every X Years	16	Year (must be equal to or less than project life)

Financing Assumptions

% Financed w/ Cash	0%
% Financed w/ Loan	100%
Loan Interest Rate	4%
Loan Period	20
Scenario A Net Cost	\$ 55,940

