

Hello- I spoke at Worcester State on 7/10/17-

Below are my comments and concerns about the new SMART program-

In terms of OWNED - residential solar.

1. The overall structure of the SMART program (all in rate @ \$0.30/KWH) makes sense for larger / leased (50KW+) systems, however, using the SMART program - the OWNED - small residential system (<15KW) is no longer financially favorable and does not support best equipment practices.

My company, NVEnergyLLC maximizes the equipment 'Made In USA' content, therefore the equipment price is higher. Many clients favor the 'Made In USA' but the price competition against other manufactures is making the project affordability unfavorable when the SMART program is modeled. Adding significant loan lengths and lower ROI terminates most projects.

The average SolarWorld (290W) panel price is \$0.75/W.
Canadian Solar (290W) is \$0.55/W
Hanwha QCell is \$0.53/W.

Maximizing the "Made in USA" materials and Enphase Microinvertors - (Install at \$3.75/W)

Looking at the 3 programs, SREC II (2016), SREC II (2017) and SMART- ALL IN COMPENSATION @ (\$0.30/KWH).

	SREC II 2016	SREC II 2017	SMART
Length of loan	6.2	7.2	8.6
Return on Inv	11%	10%	6.50%

Adjust to "Minimizing the Made in USA content" (Install cost at \$3.50/W)

	SREC II 2016	SREC II 2017	SMART
Length of loan	5.5	6.2	7
Return on Inv	13%	11%	8.00%

Length of loan (even with MassSolarLoan consideration) is very important as statistically, people move every 7 years. If the payoff exceeds 7 years, project is NOT favorable.

An Adder or modifier that will keep a 10KW-AC system at 6 years payback is needed.

Effectively- The SMART program locks out US made components to be used in competitively in OWNED residential solar while keeping the payoff max of 7 years.

2. "All in compensation" rate is NOT favorable as a state wide average since there are rate payers that are outliers.

Case 1- Until clients are paying \$0.25/KWH electricity. The \$0.05/KWH is clearly NOT favorable to take on the risk of the loan.

Case 2- Selco (Shrewsbury) clients are paying \$0.11/KWH electricity. The low utility price is NOT favorable to take on the risk of the loan vs the existing low expense.

Currently the SMART program (all in compensation) strongly favors 'investor based' projects, and as part of doing business, this makes sense.

However, the new program very much eliminates the OWNED residential market as many residents do not have the risk appetite or means to absorb a loss of a project.

In my opinion, the move away from SREC will cause the Owned residential market to be eliminated, and is not in the best interests of the residents of the Commonwealth.

The all in compensation idea for \$0.30/KWH is not enough when compared to the residential average of \$0.20/KWH. A \$0.10/KWH incentive is not enough. A \$0.25/KWH adder is more on par of reasonable.

My comments in terms of commercial solar –

The community solar aspect of the large scale solar needs a clear path. Currently there is little information for organizer guideline, utility direction, and large scale interconnection.

Even with the presentations from MassCEC and Cadmus group, the information has not kept pace with the changes.

Item that needs improvement: Array connection - should not be based on project size for net-metering. Expand utility involvement -

- Utilities should offer the option to distribute the energy generated and charge appropriately.
- Owners of the community solar project only receive the "all in rate" less the distribution charges.

2. From Page 5 of the SMART program powerpoint-

SREC

- SRECs are a tradable commodity with a value that fluctuates based on market conditions: **(This statement is an embellishment – SREC values for forecasting purposes should use the published minimum sell rates.)**
- Long-term revenue uncertainty leads to higher financing costs, **(Again – no. revenue streams should be based on minimum sell prices of SREC's)**
- A large portion of the program costs are going to a 3rd party to pay for financing, **(Without viewing the data, I find this difficult to believe as realistic.)**
- Total program costs and ratepayer impacts are difficult to predict. **(Without viewing the data, I find this difficult to believe as realistic.)**
- SRECs are an additional revenue stream independent of the value of the energy. **(YES! Revenues / incentives / TAX PAYER MONEY should be independent of utility rates so that all residents of the commonwealth receive the same benefit)**

The SMART program will certainly move Massachusetts out of the top rank nationwide into the teens.

Best Regards,

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