



August 23, 2012

Dwayne Breger, Ph.D
Director, Renewable and Alternative Energy Development
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
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Sent via: DOER.SREC@state.ma.us

Re: SREC-II Final Proposed Design

Dear Dr. Breger:

The bold vision of Governor Patrick to expand the Commonwealth's commitment for an additional 1,200 MW of solar generation and DOER's good faith efforts to provide a floor mechanism of \$285 for SREC's does not go unrecognized nor unappreciated.

Given the anticipated retirement of 8,300 MW of generation within ISO-NE by 2020 with a net of 5,300 MW of "Rest-of-Pool"¹ capacity and the yet-to-be constructed Sec 83 and 83A LTK projects, DOER may have unnecessarily restricted the six-year size (2014-2020) of the solar PV industry in the Commonwealth.

Management of the six-year SREC II program is going to be difficult for all stakeholders because the program is too small.

Incentive Levels: We Support The Schedule Of Declining SREC Values.

We support the August 12, 2013 schedule of auction floor price supported SREC values as delineated by DOER from 2014-2024 and the concept that solar will become part of the RPS Class I RECs after the 10-year eligibility.

Known incentive levels are transparent and with a supported floor price, are easily understood.

Ratepayer Concerns: SREC's Included In The Current Basic Service Rate Are The Same As 2005 Rates Without SREC's Included.

We support the interest of DOER to respond to ratepayer concerns and ratepayer advocates required by statute.

Despite the best of intentions by ratepayer advocates to drive down cost, Basic Service rates in 2013 are the same as in 2005 and 2005 rates did not include the charges for

¹ New England States Committee on Electricity vs. ISO New England, Inc.
Docket No. EL13-34-0000 (FERC)

² New England States Committee on Electricity vs. ISO New England, Inc.
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SRECs. It is our understanding that the cost of the SREC program is imbedded in the cost of Basic Service.

Average Basic Service rates for National Grid, Residential rate class from the DPU website:

	Variable	Fixed
2013	7.407 cents per kWh (4) months	7.3140 cents per kWh
2012	7.298 cents	7.2537 cents
2011	8.404 cents	7.7280 cents
2010	8.360 cents	8.1477 cents
2009	9.445 cents	10.181 cents
2008	11.583 cents	12.005 cents
2007	10.875 cents	10.775 cents
2006	10.101 cents	10.444 cents
2005	7.645 cents	8.059 cents
2004	5.973 cents	6.207 cents

The concept that renewable energy is costing the ratepayer more than they have paid in the past is not justified by historic data published by DPU. We acknowledge that hydraulic fracturing has lowered the cost of natural gas. The low cost of fossil fuel lessens the impact on ratepayers to install renewable energy, which represents an investment by the ratepayer to suppress the cost of electricity in the future and reduce the emission of green house gases.

The case New England States Committee on Electricity vs. ISO New England, Inc. Docket No. ER12-953-001 speaks directly to the price suppression affects of renewable energy. Ratepayer advocates have to concede that a 10-year investment in renewable energy today at 2005 utility rates, to permanently suppress rates in the future while eliminating millions of tons of carbon emissions is what the Green Communities Act envisioned.

To maintain system reliability we will need to “pay for more capacity than is needed for reliability, which is contrary to one of the fundamental principles of the Forward Capacity Market.”² We will be paying to have capacity available without burning the fuel. If ratepayers do not change standard operating procedures of traditional market forces, we will burn the cheapest fossil fuels for the foreseeable future with no significant contribution from renewable energy.

There are 8300 MW in generation retirements scheduled in ISO NE by 2020 with 6300 MW required for replacements of which less than 1,000 MW are required for Connecticut locational capacity requirements and the balance of the 5,300 MW “are able to be distributed broadly across the Rest-of-Pool capacity zones.”³

² New England States Committee on Electricity vs. ISO New England, Inc. Docket No. EL13-34-001 Page 13 (FERC)

³ New England States Committee on Electricity vs. ISO New England, Inc. Docket No. EL13-34-001 Generation Retirement Study, Page 28 (FERC)



It is this 5,300 MW in “Rest-of-Pool” generation capacity that Massachusetts, as New England’s largest electrical consumer should be installing with renewable energy.

SREC Factors: Premature

Given that we need to comment on the 1,200 MW program as it has been described, we understand the need for program management. There is not enough capacity in the six-year (2014 – 2020) SREC II program to maintain the professionally orientated firms that have assembled to develop, install and finance solar generation facilities.

We believe DOER should insert the language in the regulations allowing the implementation of the SREC factor system but delay its implementation until market response from the new SREC II program, the final capacity of participation in SREC I, and the looming lack of net metering capacity has had an opportunity to be assessed.

SREC factors in addition to reducing incentive values over time should be an option of last resort. How investors are going to view the risk factor and risk premium in the Managed Growth Sector is undetermined at this time.

Landfills and Brownfields - Due to higher soft cost, the SREC factor should be 0.09 for these projects.

Ground Mounted projects less than 500 kW - are large enough to benefit small business, yet too small to attract larger investment organizations; the factor for these projects should not exceed all other sectors at 0.9.

Community Solar- these projects should be considered residential projects with a 0.9 factor

1 MW Ground Mount Solar – These projects are large enough to start to amortize normal entitlement and interconnect cost and yet are small enough to for a small and medium size business to participate as an investment; 0.9 factor for these projects.

Managed Growth Sector: Increases Risk And Supports Larger Firms

To a large extent, the Commonwealth has developed industry specific renewable energy companies. These companies are entrepreneurial and the concept of front-loading risk capital and time to submit a qualified proposal that may or may not be accepted, is going to reduce the competitive field to only the largest firms that have the staff and resources to bid twice a year.

Managed growth adds complexity, interrupts business timing, and adds risk. The cost of that risk is either in higher project cost or the exclusion of small to medium size companies as they compete with larger balance sheet competitors.

Managed Growth – Staggered Commercial Operation Dates, The First Option

If Managed Growth appears to be necessary, perhaps a first method to employ would be staggered commercial operation start dates. Developers would conduct business under their own timing, make a submittal to a DOER request for proposals submitted on a quarterly basis and:



- 1) Request an SREC qualified commercial operations date to be accepted by DOER or;
- 2) Be issued an SREC qualified commercial operations date based upon:
 - a. Proposal strength and Price
 - b. Community Benefits*
 - c. Grid system Benefits**

An SREC qualified commercial operations date only limits when the project is SREC II qualified for incentive payments.

The solar generation developer could elect to commence all entitlement approvals, studies, construction and commercial operation. SREC II payments would be enabled on the publicly available, SREC II authorization date for the project. The risk for capitalization of interest spanning the time when SREC II payments commence would be the developers. The ability to accomplish this concept will depend upon the regulatory certainty that the SREC authorization date will not change once approved, the economic strength of the project or the developer.

All of the above assumes that net metering capacity will be available for all RPS projects.

* Community Benefits –evaluated on the benefits to landowner, community organizations, percentage of MA labor and MA based professional participation.

** Grid Benefits – evaluated on equipment designed to lessen the impact of intermittent energy on grid such as energy storage capability.

Competitively Qualified: Not Traditional Procurement

Rather than competitively bid, DOER would review proposals on a Competitively Qualified basis. A Competitively Qualified project would allow for projects to be evaluated based upon total project attributes and would allow for projects to be awarded on a basis most advantageous to the Commonwealth, not necessarily the lowest price.

Proposals Received Quarterly: Twice A Year Is Unacceptable

Governor Patrick has spoken before about government acting at the speed of business. Business has a need for generating earnings on a regular periodic basis. Public companies require quarterly earnings reports, investors who look to invest in the solar industry want to put that investment to work and small companies need to book work to stay in business. Twice a year to book all of a companies work is unacceptable and constitutes too much risk that only the largest firms will underwrite.

Having the proposals reviewed quarterly will provide the evaluating teams with a more consistent work flow and allow for published adjustments as required.

Proposal Format: Keep It Simple

Submission of (8) paper copies of proposals and (1) original are a vestige of the past and an anathema to the concept of conservation of resources.



Quarterly, thirty days in advance of the deadline, DOER would make available an FTP cloud based “Dropbox” kind of site that is password protected by the developer. That FTP site would allow the registration of a Proposer. Within the Proposers registration, multiple projects could be submitted. Each Proposer project specific folder would have the same sub-folders that all proposers would use to submit information. Such sub-folders might look like the following:

Price Proposal -Pricing and Signature page
Title Page

Non-Price:

1. Title Page (auto-filled from above)
2. Certifications and Attestations assembled on one scroll down page with space for an e-signature.
3. Proposal Description
4. Public Benefits
5. Technical Description
6. Utility Approvals
7. Municipal and State Entitlement Approvals
8. Financing

The format would be an open submittal format allowing the developer to insert information as required.

During the 30-day period the FTP cloud-based site is open, it is under the sole control of the Proposer who may add and delete submission material at the Proposers discretion. The Proposer would have the ability to hit a tab indicating that the Proposers submittal is complete. Upon the time and date for quarterly submissions, control of the FTP site would revert to DOER in the presence of two or more people.

DOER could then give evaluators access the Non-Price and Price submittals at their discretion.

There would be two public documents made available by DOER:

1. Title Page –describing Proposer, Project Size, Utility, Load Zone, City/ Town
2. The Evaluation Page – DOER would provide an evaluation based upon the merits of the Proposal. Price, Public benefits, Massachusetts based labor and professional team content.

DOER Discretion to Modify SREC Factor: No Choice With Constrained Program

Given the system size constraints and the six years left (2014-2020) in the SREC II program, DOER may not have a choice but to modify SREC factors.

The issue is program size. The Governor and DOER should revisit existing calculations and information currently available that may give reason to expand the size of the SREC II program.



Forward Minting: We Support A Standardized 10-Year Option

Forward minting is a great concept for direct ownership where the residential owner is both the host customer and has direct ownership of the SREC's. A supported floor mechanism would be required.

A Standardized 10-Year Residential Ownership plan offered by Sungage would be a simpler model to implement. The Sungage Standardized 10-Year Residential Ownership model has an opt-in plan administered by MassCEC where DOER would agree to sell the SREC's at the auction floor price. Perhaps the forward minting concept could be used as a mechanism to underwrite and capitalize the Standardized 10-Year Plan. Forward Minting would provide a source of funds to make payments 3-years in advance with the balance SREC payments being made quarterly to support continuing debt for the remaining seven years. This concept may remove DOER from having to directly fund the program. Banks could take assignment of funds on both the forward minted income and continuing SREC income stream. A greater regulatory understanding of DOER policy hurdle rates, policy implementation and more stakeholder input is needed.

We are against the third party ownership model being eligible for Forward Minting.

DOER could then use this program to provide additional support the floor of the SREC market.

Interconnection Consideration: Potential For Increased Cost

In many instances, interconnection improvements constitute a public benefit for utility infrastructure that has yet to be upgraded to accommodate renewable energy. If FERC confirms a federal ruling pursued by the Attorney General, to lower utility profits, allegedly slated for transmission upgrades to improve access to wind and solar energy resources, there may be increased cost passed on to solar PV and other renewable projects to access the grid.

If the cost for interconnection exceeds \$200,000, for those projects with SREC factors in place, the SREC factor could be removed or modified.

For competitively qualified projects, interconnection upgrades would be considered to be a public benefit.

Grid Benefits: Encourage Energy Storage On Intermittent Generation

While energy grid storage technologies and economics have yet to be fully commercialized, offering an energy storage incentive through the SREC program would provide the development, engineering and manufacturing communities with a focus to develop methods of energy storage that would provide inverters with a constant voltage output for 15-30 minutes to deal with intermittent changes in light due to clouds and shadows. Increased storage capacity intervals would be added, over time, through competition by each equipment provider.



The incentive could be provided by the removal of the SREC factor for those “managed supply” systems over 200 kW. Managed supply ground mount projects with a storage component would take higher priority than those projects without a grid reliability component. Project owners could look to receive a full SREC at \$285 the auction.

The incentive would be technology neutral and would not pick market winners and losers but would require that the technology allow the inverter to deliver constant AC voltage to the grid for the fifteen to thirty minute period of time.

ITC Benefit to Massachusetts: The ITC Is Financing MA Clean Energy Jobs

The Investment Tax Credit (ITC) is attracting investors to the development of solar generation facilities that would not otherwise look at the solar and renewable energy industries due to low returns. As much solar and renewable energy capacity should be added as possible while the ITC remains in place until 2016.

The Massachusetts Clean Energy Center reports that there are “71,523 employees working in clean energy throughout the Commonwealth; which is 1.7% of the total Massachusetts workforce”

The ITC contributes to the financing of those clean energy jobs.

Review SREC II Program Size:

The DOER should review the criteria used to select the six-year SREC II program size. Given the 2012 Amendment to Chapter 169 sec 116, (a) that encourages large hydroelectric that does not apply to the RPS calculation, the assumed allowance for capacity on yet-to-be financed or constructed Section 83 / 83A LTK facilities combined with the potential for Massachusetts to be the provider for 5,300 MW of retiring generation, DOER could find potential for a significantly larger SREC II program size.

Respectfully Submitted,

A handwritten signature in dark ink, appearing to read "Doug Pope", written over a horizontal line.

Doug Pope
President