



RENEWABLE ENERGY MASSACHUSETTS LLC

Massachusetts DOER – Post-400MW Policy - Comment Letter

April 8, 2013

We appreciate the opportunity to share comments on the DOER's proposed second stage of the Massachusetts SREC program (referred to below as the "SREC II Program" or simply "SREC II"). We thought it would be constructive to identify certain challenges within the original 400MW SREC program ("SREC I") and then how the SREC II program could be designed to address these concerns. We hope that SREC II will yield a less uncertain development path and realize lower compliance costs for Load Serving Entities (LSEs) -- and underlying ratepayers -- as the industry delivers lower cost solar energy. As developers of solar energy projects in Massachusetts over the last several years, we have seen first-hand how long the process takes at the local and statewide level to secure all of the solar development pieces in the Commonwealth. We take it as a point of departure that a simpler, more streamlined SREC II program will lower development cost and risk, produce SREC II price savings for ratepayers, and increase certainty for LSEs and municipalities. We also believe that the objective of SREC II should be a fair and predictable development process that yields a robust solar marketplace in Massachusetts, not a boom-and-bust cycle that destroys development efforts and committed capital.

I. Areas of Concern with the Existing 400MW SREC Program

1. None of the stakeholders to a prospective solar energy project (landowners, developers, net meter PPA off-takers, municipal assessors, SREC purchasers, etc.) have any clear understanding at the outset of the development process how long a facility's SREC I auction and overall sale rights will last. If it's 10 years in 2012, what will that number be in 2014 or 2015? 8 years? 5 years?
2. The relative lack of long-term SREC liquidity has been well described. Necessarily, the relative complexity and year-to-year price variability of SREC Is has left more than a few proposed long-term SREC sale contracts unfulfilled and unexecuted after several months of negotiation and substantial legal expense.
3. The SREC I sale process is highly uncertain -- with large purchasers among the LSEs being under no obligation to purchase SRECs long-term or to enter into contracts ratably throughout the four quarters of each calendar year. Consequently, there is often a mismatch between the timing needs of project development (read: PPA termination rights related to COD drop-dead dates) and the prerogatives of LSEs that gain financially from development instability.
4. The impact of SRECs on collateral agreements -- PPAs, leases and tax agreements, all of which are struck long before a project sponsor actually enters into an SREC contract -- should not be ignored, as the perception of substantial SREC value has financial consequences and serves to draw out negotiations. Usually these SREC value perceptions, including consultants to assessors recently in the marketplace, fill audiences with unrealistic expectations that become difficult to modify and usually run to the detriment of project developers (lest they be forced to wait another year, for example, before another town meeting is held to consider approving a property tax agreement).

5. The burden of six-figure legal bills to complete project due diligence, security and LDs, and complex terms and conditions required by conservative utility and financial purchasers and their teams of lawyers.
6. To the extent the DOER seeks a broad pool of participants in the solar development process, we submit that risks associated with the foregoing considerations extracts a higher burden on lesser capitalized developers. We believe SREC II policy can be designed to produce a more level playing field.

II. SREC II Proposal: Annually-Adjusted Standard Offer SREC Price with Formula for Price Reduction Tied Directly to Drops in Massachusetts Aggregate Solar Installed-Cost

Whether the DOER chooses to structure a clearing auction to stand behind SRECs, or whether it chooses an SREC long-term RFP model, or creates a “true” floor, in all cases needless to say, ratepayers pay the SREC compliance bill. In SREC I, they may pay less, but they may also pay \$300 per MWH in the auction, or more.

We encourage the DOER to structure SREC II with an **adjustable standard offer price that changes each year on a formulaic basis tied to reductions in the installed cost of solar in Massachusetts each year**. Just as in SREC I, the standard offer SREC IIs would be purchased ratably by the LSEs based on their respective market shares. We recommend the following features for the new SREC II program:

1. **Program Size**. The SREC II program should be robust in size with a targeted 2,000MW of new installed solar to keep the Massachusetts solar framework visible and steady for the decade ahead.
2. **Guaranteed Term**. All SREC II solar facility generators would receive a guaranteed term that would not change during the life of the SREC II Program -- for example, 10 years. The standard offer prices would change, but the term would not. Security and visibility are gained by providing a uniform sunset.
3. **Annual Guaranteed Standard Offer Price** would reduce project risk and thus financing costs by offering the annually established SREC price for the entire 10-year term for each project built in a year. As described below, the standard offer would be adjusted each year based on a clear formula. Among the benefits, a standard offer would substantially reduce the time and cost associated with securing an SREC contract and project financing, all the while speeding up development timelines. All of these factors would combine to reduce installed costs, which would in turn reduce future SREC costs.
4. **Initial Standard Offer Proposal**. If one assumes that SREC II will begin in year 2014, based on our familiarity with present day installed costs, we suggest the first year SREC standard offer price should be set in the vicinity of \$185 per MWH. The DOER could analyze whether it makes sense to differentiate standard offer rates depending upon one or two size thresholds and possibly other factors such as location type. One could envision a modestly higher standard offer price (e.g., \$215) for smaller facilities due to their lower economies of scale.
5. **Annual Adjustment Mechanism: Aggregate Massachusetts Installed Cost**. Critical to policy makers, the annual standard offer rate would be adjusted each year based on changes in the aggregate actual cost per KW to install solar facilities in Massachusetts. It is fair to say that the substantial majority of solar projects in Massachusetts are financed with private capital. Accordingly, all such owners today must already report CPA-certified, fully-installed facility costs to the Treasury Department to receive an ITC, and in any event must report their cost basis in order to establish depreciation schedules. Consequently, the SREC II Program could readily tap into this existing reporting system and, with minimal cost or administration, systematically track the installed cost of every KW of solar installed each year. IRS reporting is sufficiently verified and enforced such that the DOER and the public could take comfort that SREC II standard offer

- adjustments would be based on valid cost information in Massachusetts. Publicly financed projects would also be required to report installed cost per KW, and few would dispute the veracity of those cost reports.
6. Prospective, Not Retroactive Changes to Annual Standard Offer Rates. Again, the change in annual SREC II standard offer prices we envision would not be retroactive, but rather apply prospectively. Thus, as the average solar installed cost for each solar class each year is reduced by a percentage from the prior year, the SREC II standard offer price would be reduced by a set formulaic percentage in the following year. If in year 2015, the aggregate installed cost of solar dropped by 10% from \$3 to \$2.70 per watt, the standard offer would be reduced by a similar percentage set by the DOER.
 7. Can Installed Cost Reductions be Guaranteed? No, but the facts remain that: (a) solar energy equipment is part of a large, highly competitive international market place; (b) as The New York Times reported today, “more than 40% of the country’s solar capacity of 7,700 megawatts came on line last year,” which signals a trend of increased volume that will continue to drive innovation and efficiency gains from installation experience, industry scale, software and technology, and business process; and (c) financiers always want to drive up returns by driving down marginal cost. All of these forces should continue to bring solar costs down over time. The standard offer price could also be subject to a price cap on the upside to force financial discipline and protect ratepayers. Furthermore, in the vicinity of \$185 per MWH, the DOER would be in a position to promote publicly its substantial compliance savings as compared to SREC I and the \$300 per MWH auction prices that many expect will soon be paid by the LSEs at auction.
 8. Who Pays the Standard Offer? While this needs further consideration, the simplest structure would require all LSEs to fund their respective market load share of a maximum quarterly volume of standard offer SREC II purchases. Assuming a 2,000MW total size of SREC II, the annual standard offer price volume would be set by the DOER, such as the SREC generation of 60 MW installed per quarter. Projects would be awarded SREC contracts on a FIFO basis that would be administered by the DOER or its agent -- with the aggregate SREC purchase cost for all installed projects, up to the quarterly limit, paid ratably by the LSEs according to their market share. As the LSEs’ load shares naturally adjust over time, their quarterly volume purchase obligation would adjust accordingly.
 9. Qualified Facilities. The DOER SREC and DPU net metering qualification standard should be harmonized to both require (a) site control; (b) signed ISA with a distribution company and (c) all permits in hand. In terms of individual facility size, there is no reason to change the 6MW facility size cap that exists under the SREC I program. That battle has been fought. Promote policy stability by maintaining the 6MW cap.
 10. SRECs Outside the Standard Offer? At the risk of complexity, projects could be built in addition to the quarterly volume of standard offer SREC-projects and the LSEs could be made obligated to purchase free floating contracts on a bilateral negotiated basis, but we believe careful consideration should be given to maintain program simplicity.
 11. Differentiated Prices Depending upon Location Type. The DOER could also create SREC price incentives (such as relatively higher standard offer prices) for certain favored types of locations (i.e., brownfields, rooftops, gravel pits, certified dormant industrial sites, etc.) while creating a relative disincentive for other types of locations. At some point as solar continues to consume larger amounts of land in order to host 2,400MW of installed capacity, the downside associated with greater SREC II programmatic complexity may well be outweighed by another key benefit of differentiated standard offer prices: the ability of the DOER and the Commonwealth to retain greater land-use control over the location of solar facilities in the future.

III. Benefits of an Adjustable Standard Offer SREC II Price

1. Utilities, LSEs, regulators, assessors, lessors, municipal officials, financiers and developers alike would gain greater long-term price/cost/investment clarity, relative industry fairness and compliance simplicity.
2. By adjusting the standard offer price annually based on reductions in solar installed costs each year, efficiency gains would be passed through directly to the LSEs and their ratepayers rapidly and seamlessly.
3. Public policy makers would have greater say in the location of future solar development and prevent a densely populated and relatively small geographic state from using up scarce land for solar.
4. The terms of the SREC I and SREC II programs would be completely separate (to the benefit of SREC I installed projects): SREC II would only apply to facilities once the SREC I 400MW program is complete.
5. Although other commentators may focus on “free market” arguments in support of negotiated pricing (though with a price-supportive auction clearing system), we believe these suggestions are outweighed by the benefits of stability, liquidity and visibility that are expected from a standard offer.
6. While others may disagree, we would submit for the DOER’s internal legal analysis that it may already have sufficient legal authority in place under the Green Communities Act to create a standard offer structure through regulation alone. Noting how expensive the ACP is today, how LSEs today are currently obligated to satisfy their market share of an expanding SREC compliance cost, and face consequences for failing to participate in a more expensive \$300 fixed price auction, we don’t believe that a lower cost SREC II standard offer with a formulaic reduction mechanism tied to installed costs is such an extreme change.
7. Net Metering benefits for public facilities would be left undisturbed by maintaining the existing separate purchase of SRECs and Net Metering credit, as compared to alternatives like a feed-in-tariff.
8. Substantial reduction in the ACP from \$550 today to \$250 would be realized through the reduction in overall per-MWH program compliance costs associated with a lower-risk, standard offer below the ACP.

IV. Weakness of an SREC RFP Procurement Program with Mandated Long-Term Contracts

One of the concepts discussed by the DOER during the March 22nd public hearing was the idea of filing enabling legislation or otherwise mandating by regulation that the LSEs (or Distribution Companies) be forced to “frequently” solicit, through RFPs, long-term SREC purchase contracts. Based on the experience with what we understand to be the only long-term SREC I utility RFP in September 2012, and other long-term SREC/PPA procurements that we have witnessed, we believe that this path is not desirable for the following reasons:

1. In last year’s 10-year SREC RFP, we understand (admittedly second-hand) that the purchase contract was awarded to a brokerage firm offering a low price, notwithstanding that the selling broker did not have an actual project to stand behind the SREC offer. While the RFP document contained pages of material indicating how much the RFP would value projects with substantial completeness and certainty of development -- and stated it was designed to advance the renewable development goals of the Green Communities Act -- the contract was awarded, we understand, to a broker. That first outcome should be troubling to advocates of a procurement option for SREC II.
2. More recently, the solar industry received an advance notice from NStar of an upcoming joint PPA/SREC RFP expected to be launched in spring 2013. To quote the RFP document directly, it anticipates that the drawn-out process will wait to “Submit Contracts for MDPU Approval [T+214] [November 1, 2013]”. Even at the end of 214 days, a chosen SREC offer would be subject to a new round of DPU review prior to the awarded contract actually being executed. We submit that a procurement-based SREC II program would be frustratingly drawn-out and at the same time very risky. Good projects get killed without revenue

visibility. Instead, an RFP structure would increase the risk on smaller developers and concentrate the power in the purchasing LSEs/utilities, which would translate into serving the interests of larger industry players and more financially-based institutions. This should be a concern to the DOER if it seeks a more level solar industry in Massachusetts that has legs for substantial development over the long term.

We appreciate the opportunity to share our views on the unfolding SREC II program and look forward to discussing these ideas with the DOER and other stakeholders as the policy process unfolds.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brian Kopperl", is centered on a light gray rectangular background.

Brian Kopperl

Managing Partner & Co-Founder