



# *Commonwealth of Massachusetts*

JOINT COMMITTEE ON TELECOMMUNICATIONS, UTILITIES AND ENERGY  
MASSACHUSETTS GENERAL COURT  
STATE HOUSE, BOSTON 02133-1054

**BENJAMIN B. DOWNING**  
SENATE CHAIR  
ROOM 413-F  
TEL: (617) 722-1625

**JOHN D. KEENAN**  
HOUSE CHAIR  
ROOM 473-B  
TEL: (617) 722-2263

March 10, 2014

Mr. Mark D. Sylvia – Commissioner  
Department of Energy Resources  
100 Cambridge St., Suite 1020  
Boston, MA 02114

**RE: REPORT OF THE COMMITTEE ON PROPOSED AMENDMENTS TO THE RPS CLASS 1 REGULATIONS TO ESTABLISH A SECOND PHASE OF THE SOLAR CARVE-OUT (225 CMR 14.00)**

Dear Commissioner Sylvia:

First, we would like to take this opportunity to express our appreciation to you and your dedicated staff for your work thus far developing the second phase of the Solar Carve-Out. We applaud your continued dedication to the promotion and development of renewable and alternative energy resources. Pursuant to Section 12 of Chapter 25A of the General Laws, the Joint Committee on Telecommunications, Utilities and Energy has reviewed the proposed amendments to the RPS Class 1 regulations.

Since its inception, the Solar Carve-Out has played a critical role in developing Massachusetts' solar industry. In 2007, there were 3.5 MW of installed solar capacity in Massachusetts. Since then, that number has grown to 463 MW, with significantly more in development.<sup>1</sup> Governor Patrick's goal of 400 MW of installed solar capacity by 2017 was reached four years early in May 2013, and now the Governor has announced a new goal of 1600 MW of installed capacity by 2020. We applaud the Governor and DOER on its success thus far on these solar incentive policies. While investment in renewable energy generation is necessary to mitigate the risks associated with climate change by reducing our dependence on fossil fuels, investment in distributed renewable energy generation is also particularly important. The Legislature created the carve-out for "on-site" renewable generation facilities in the Green Communities Act (GCA) because distributed generation (DG) offers significant benefits.

The Committee respectfully brings to several items to your attention:

---

<sup>1</sup> Over 673 MW of capacity is qualified for the Solar Carve-Out program as of February 21, 2014.

## Solar Renewable Energy Certificate (SREC) Price Volatility

The Renewable Portfolio Standard was enacted by the Legislature in order to encourage investment in new renewable energy generation. Similarly, the Solar Carve-Out program was designed in response to a legislative mandate to provide a mechanism to encourage investment in DG resources. As noted above, DOER has successfully achieved the goal of encouraging investment in distributed generation. However, the program has produced a market with unstable SREC prices. In the early years of the program, SRECs traded near the Alternative Compliance Payment (ACP) price. As a result, solar development boomed, and caused an oversupply of minted SRECs. In recent years, this has resulted in lower SREC prices.

While DOER's program design, including its innovative demand formula and Solar Credit Clearinghouse Auction, has prevented the disruptive market crashes that have been seen in other states, DOER proposes a "managed growth" concept in its Solar Carve-Out II proposal. Managed growth encourages more stable prices for the duration of the SREC-II program, which is designed to last through 2020. We applaud the managed growth concept as a tool for reducing volatility in the market which should benefit both retail electric suppliers and solar facility owners.

### Cost

While we support the Governor's solar goal of 1600 MW by 2020, we understand that the costs of the Solar Carve-Out are passed on directly to consumers in their electric bills. Therefore, it is important that the program is designed to achieve its goal at low costs.

DOER has already taken significant steps in its proposed regulations to curb the ultimate costs of the program to consumers, and must be recognized for these important steps. Specifically, DOER introduces a declining ACP and Solar Credit Clearinghouse Auction-II fixed price schedule with maximum SREC prices significantly less than those possible under the first carve-out program. Lower and declining ACP rates reduce the total risk of high cost that faces ratepayers funding these programs. DOER also introduces the concept of an SREC Factor. In its proposal, DOER provides different factors to different market segments, in order to more accurately match the costs associated with development for each one of the segments. Provided that development continues to be split between market sectors, the SREC Factor concept will reduce the demand associated with the total solar capacity goal that SREC-II is designed to achieve, which may lower total program costs. Additionally, DOER plans to review SREC Factors set in guidelines by March 31, 2016. Considering falling costs of solar, we encourage the DOER to review the SREC Factor Guideline even earlier than its proposed date of March 31, 2016.

### *Competition Imperative to Assure Low Costs*

In DOER's initial proposals released during the summer of 2013, DOER proposed setting the SREC factor for the larger, stand-alone projects in the managed growth sector by utilizing a competitive solicitation. DOER has decided to utilize an alternative approach, setting the SREC factor for the managed growth sector administratively, at 0.7. However, in the proposed

regulation, DOER has inserted 225 CMR 14.05(9)(r), reauthorizing a possible competitive solicitation to set prices. We are glad that, with this provision, DOER has left open the possibility for competition, especially for larger, stand-alone managed growth sector projects. We believe that in certain circumstances with sufficient competitors, competition can be effective at lowering prices and therefore costs to ratepayers. Other states have moved toward this approach for solar. California's Renewable Auction Mechanism, Connecticut's ZREC program and Rhode Island's Distributed Generation Standard Contracts program are a few among many programs that utilize competition to procure solar resources at low prices. Most of these programs also provide accepted bidders with long term price certainty for their revenue, which allows for lower prices by reducing the revenue uncertainty to developers associated with an incentive such as SRECs, whose actual value must therefore be discounted when attempting to finance a project.

#### *Achieving Transmission and Distribution (T&D) Benefits to Maximize Cost Effectiveness*

A number of commenters have suggested that the benefits associated with avoided T&D costs for solar energy are not well supported. As currently implemented in Massachusetts under existing incentive programs, there is little incentive for solar growth to occur at locations on the distribution grid that would provide maximum benefit to the grid, and ultimately ratepayers.

In 2013, DOER issued a report recommending that "the state encourage or require utilities to conduct Integrated Distribution Planning to systematically identify opportunities to increase reliability and reduce distribution system cost to all ratepayers" by integrating "distributed energy resources," especially solar, into the region's portfolio of distribution investments.<sup>2</sup> By conducting up-front DG planning as part of its existing resource planning, DG developers can see reduced development costs, and solar development can be geared toward those locations on the grid that are most valuable to the T&D system. We encourage DOER to actively participate in grid modernization hearings at DPU to advocate for such integrated distribution planning which may lower total program costs, and when feasible, after its SREC Factor review in March 2016 or earlier, adjust SREC factors or utilize other mechanisms to encourage development at locations and circuits that have been determined to have the greatest avoided T&D costs. Additionally, if DOER can work directly with each electric distribution company to initiate this planning on a voluntary basis, ratepayers can begin to benefit even sooner.

One related tool that would be helpful for achieving the benefits associated with avoided transmission and distribution costs is solar mapping. Electric distribution companies in states such as New York, California, and the District of Columbia provide maps to solar developers that show the suitability of developing solar on certain buildings and circuits. These maps can reduce transaction costs involved with solar development by encouraging investment at distribution grid locations that require the fewest engineering upgrades and that may be associated with the greatest T&D cost benefits. We encourage DOER and the electric distribution companies to work together to develop these tools in Massachusetts.

---

<sup>2</sup> "Massachusetts Electricity Markets and Planning," submitted to the Joint Committee on Telecommunications, Utilities and Energy under Section 51 of Chapter 209 of the Acts of 2012, *An Act relative to competitively priced electricity in the Commonwealth*.

### **Equity Between Market Sectors**

In addition to helping to control costs, the proposed SREC Factor provides a financial incentive that differentiates between market sectors. Different sectors have different core costs. Residential rooftop solar, for example, is significantly more expensive per unit of capacity than ground mounted solar arrays to construct, yet under SREC-I, both the largest interconnected solar facility and the smallest facility receives the same revenue per kilowatt-hour. As a result, it is likely that the SREC-I program provides revenue for larger projects greater than each project's revenue requirement while providing revenue for small projects considerably less than each project's revenue requirement. The SREC Factor concept helps correct the first program's bias toward larger-scale projects which, while an important aspect of the solar industry in Massachusetts, runs contrary to the greater benefits and the original goals regarding distributed small-scale solar throughout the commonwealth sized appropriately for on-site load.

### **The Solar Carve-Out and Net Metering**

In Massachusetts, many solar generating units qualify as both net metering facilities under Chapter 164 and RPS Solar Carve-Out facilities. Due to the interdependence of these two programs that developed during the first Solar Carve-Out, the Legislature increased the net metering aggregate capacity limits to a total of six percent. We hope that the assumptions underlying DOER's Solar Carve-Out II proposal take into account the limitations on aggregate net metering capacity. The Committee is considering whether additional changes to net metering are necessary in order to continue the growth of solar in Massachusetts.

### **Third-Party Ownership versus Direct Ownership**

Third-Party Ownership structures have provided many homeowners, businesses, municipalities and other government entities throughout Massachusetts with access to solar and lower energy costs. It is unlikely that Massachusetts would have been able to achieve its solar goals at such an aggressive pace without these ownership structures. However, there are demonstrated benefits to homeowners and businesses that are able to finance and own their own solar systems. We are strongly supportive of DOER's ACP-funded financing program for these market participants to help address barriers to direct ownership announced under 225 CMR 14.05(9)(q). We expect the program to be aggressive, effective, and implemented in a timely manner.

### **Class I RPS Eligibility for non-SREC GIS Certificates**

DOER's SREC Factor proposal provides that generators with an assigned factor of less than 1 generate SRECs for only a portion of each megawatt-hour of electricity produced, which should lower program costs by limiting the demand for SRECs associated with the installed solar capacity target. However, DOER's proposed regulations provide that the portion of solar electricity generation that does not generate Solar Carve-Out II Renewable Generation Attributes does not generate RPS Class I Renewable Generation Attributes. We see no reason that this generation should not qualify as Class I RPS generation under section 11F of Chapter 25A to increase Class 1 REC supply and lower Class 1 RPS compliance costs.

### **Restricting Market Sector C to a Single Parcel of Land**

DOER establishes Market Sector C as a sector promoting solar development on landfills and brownfields. Solar arrays with a capacity of less than 650 kW are also eligible under Market Sector C, however, 14.05(9)(1)(2)(c) does not include a provision clarifying that this capacity should be measured as the total capacity of qualified Solar Carve-Out II Renewable Generation Units on single parcel of land. Without such a provision, large projects that should be restricted to the managed growth sector may inappropriately access Market Sector C. Such a restriction would be consistent with the existing program and with net metering.

### **Access to Solar for Non-Profit Institutions**


While non-profit institutions provide about fifteen percent of the Commonwealth's employment, less than three percent of solar projects have been developed by or on behalf of non-profits. DOER should consider changes to the regulations or SREC Factor guidelines in order to stimulate access to solar for small non-profit institutions.

### **Pre-2010 Solar Systems**

DOER's initial Solar Carve Out and proposed Solar Carve-Out II programs restrict eligibility to qualifying generation units installed after 2010. We understand that DOER is reluctant to provide eligibility to these early adopters because they had received larger rebates under the initial commonwealth solar rebate program. However, many aggregators that aggregated the RECs generated by these facilities have abandoned their solar REC aggregation services because of the few solar Class 1 REC-generating facilities in Massachusetts. Therefore, early adopters have had difficulty selling their attributes. Revenue from these sales is important for financing their initial investments. We respectfully request that DOER consider offering solar-carve out I or II eligibility to pre-2010 solar systems. These early adopters represent only 19 MW of solar capacity.

Thank you for taking the time to consider the Committee's concerns. We appreciate DOER's proactive approach in managing the Renewable Portfolio Standard under Section 11F of Chapter 25A.

Sincerely,

  
Benjamin B. Downing  
Senate Chairman

  
John D. Keenan  
House Chairman