

**Comments of Consolidated Edison Development, Inc. and
Consolidated Edison Solutions, Inc. on
Massachusetts Department of Energy Resources S-REC Price Support Mechanism**

via e-mail: michael.pleasant@state.ma.us

November 5, 2009

Corporate Background

Consolidated Edison Development, Inc. ("CED") is an asset development company with extensive experience owning, constructing and operating electric generating plants in the Northeast. CED's current focus is the development of renewable and energy infrastructure projects in the United States, with an emphasis on the Northeast. Consolidated Edison Solutions, Inc. ("CES") is a retail energy provider serving more than 200,000 residential, commercial and industrial customers throughout the Mid-Atlantic, Northeast and Texas. In addition to retail energy supply, CES offers its customers a number of energy-related services, including demand response and energy conservation services, renewable energy and other distributed energy products and maintains an office in Burlington, Massachusetts. CED and CES appreciate this opportunity to comment on the Massachusetts Solar RPS Carve-out price support mechanism, as presented by the DOER at the October 23, 2009 Public Stakeholder Meeting. CED and CES believe that there is substantial solar development opportunity in Massachusetts that can be supported through a well-developed and appropriately implemented solar funding mechanism, and we commend the DOER for its creativity in proposing a mechanism aimed at making solar projects financeable. However, there are a number of issues with the current proposal which will need to be addressed in order to reach that objective.

The DOER Needs to Implement a Structure that Provides Financeability

CED and CES support efforts to attract new renewable resources and agree with the DOER's premise that establishing a long term pricing mechanism can help potential developers secure necessary financing. For example, both the central procurement of renewable credits by the New York State Energy Research Development Authority and the Feed-In tariffs employed by many states have created stable multi-year pricing that in turn has attracted many renewable projects. However, it is not clear that the DOER's proposed auction structure will enable solar developers to finance projects. First, the developers that deposit S-RECs into the Auction Account will at best only receive \$285/S-REC (the \$300 fixed price minus the 5% auction fee). An indicator of a more appropriate floor price is provided by the results of the first round of the New Jersey SREC-Based Financing Program, which cleared at an average price of \$409.71/S-REC all for ten-year terms. Second, there is no assurance that the auction will clear the full quantity S-RECs, making it uncertain when, if ever, the developer would be paid for the full output of their facilities.

A key assumption of the auction design is that the value of S-RECs will increase over time and any excess will ultimately be consumed by buyers. The Program Design and Analysis Document dated October 23, 2009 states “Utility and competitive retail electricity suppliers will bid in the auction for the volume they are willing to buy... If insufficient volume is bid, the auction will be repeated with one additional year added to the Shelf Life of the Extended Life S-REC’s. The auction is repeated as necessary until the volume bid is sufficient to clear the available Extended Life S-REC volume.” However, in regions with long-term (three to seven year) SREC markets such as New Jersey, the longer the term, the lower the bid. Thus the S-REC auction may not clear, because if buyers were unwilling to pay \$300/S-REC for one year, they would not be willing to pay an option premium for longer lived (two or more year) S-RECs because, absent rapid growth in the requirement, the extended life S-RECs would compete with newly minted S-RECs and contribute to an oversupply in subsequent years. Furthermore, since most wholesale and retail supply contracts are less than three years in duration, it is quite possible that there will be little or no interest in paying a premium for S-RECs with terms longer than three years. If auctions have the potential not to clear, then solar developers do not have a guaranteed revenue stream and will be unable to obtain financing.

The Development Potential in Massachusetts Should not Be Constrained to Prevent Market Growth

The Commonwealth Solar program has successfully supported market growth in Massachusetts to date, but the development potential, particularly for megawatt-scale projects, remains unrealized. Although 12 MW of PV are currently installed in Massachusetts, none are greater than 1 MW, and only a handful is greater than 0.5 MW. Significant potential for market expansion and project development exists, particularly with larger scale projects which have not previously received public support.

Vermont recently opened its feed-in tariff queue at an interim rate of \$300/MWh for 25 years for solar. For the available solar quantity cap of 12.5 MW, Vermont received applications for solar installations within Vermont totaling more than 171.9 MW in the first day alone. Of the 185 applications received on October 19, 2009, 74 were for projects greater than 1 MW, and 42 were for the maximum allowable project under the program, 2.2 MW. In Massachusetts, the DOER has proposed a minimum auction revenue rate \$285/S-REC, and a maximum ACP rate of up to \$600/S-REC. In addition, solar projects in Massachusetts may also be eligible to obtain, pursuant to the new net metering regulations, retail value for each kWh produced, unconstrained by the need to find adequate on-site load.

Given the high volume of activity in Vermont pursuing the feed-in tariff, the relative scale of the population and economies, and the combination of incentives proposed or in place for Massachusetts, we believe DOER should anticipate that an even greater amount of PV development activity is likely (and currently underway) in Massachusetts. Due to the short lead-times associated with solar PV development, hundreds of MW of PV generation are likely to be able to respond promptly to the market demand created by the proposed S-REC RPS Class 1 carve-out, under two critical conditions: if projects are able to get financing, and if the market is not already flooded with a substantial surplus of S-RECs.

At the October 23, 2009 Public Stakeholder Meeting, DOER announced, to our surprise, its intent to allow utility-owned solar to be eligible for the proposed S-REC carveout. Since these projects will have regulatory approval to recover costs from ratepayers, they do not need the guaranteed floor price that DOER is attempting to create through its proposed S-REC Price Support Mechanism, and therefore such development should occur outside of the solar carveout. Allowing utilities to claim S-RECs for projects which receive rate recovery would produce excess supply with an implicit ratepayer subsidy, suppress the market price of S-RECs and further discourage solar development. Further evidence of the legislature's intent is the fact that utility-owned solar projects under the Green Communities Act (Section 58) are not limited to the 2 MW cap applicable to the Section 32 customer-sited carve out.

As the Green Communities Act permits Massachusetts' investor-owned utilities to own up to 50 MW each, so long as they are operating by June 30, 2012, utility-owned development has the potential to overwhelm the S-REC market in the near term. Western Massachusetts Electric Company and National Grid have already received approval from the Massachusetts Department of Public Utilities (DPU) to install and own 6 and 5 MW respectively, and more activity can be expected between now and June 30, 2012. Given the total development potential for 200 MW of utility-owned solar and an initial S-REC requirement in the 20-MW range, allowing utility-owned solar to participate would likely overwhelm the S-REC market and squelch the substantial development pipeline for all but utility-owned projects.

At a minimum, if utility-owned solar is to be eligible for S-RECs and to be counted as part of the Minimum Standard then the DOER needs to account for this development potential in the S-REC market projections.

Given the economic conditions and what we've learned through Commonwealth Solar and through Vermont's SPEED program, and initial activity from the Massachusetts utilities, CED and CES strongly recommend raising the initial Minimum Standard of 20 MW of solar in 2010 to at least 50 MW and further still if utility-owned solar is to be included in the base.

The DOER Should Consider Impacts on Massachusetts Ratepayers During Program Development

The DOER should continue its efforts to meet the Commonwealth's policy objectives in a cost-effective manner. Solar installations exhibit strong scale economies, particularly above 750 kW, where the per-unit cost drops substantially. As documented in Lawrence Berkeley National Laboratory's October 2009 report "Tracking the Sun II, The Installed Cost of Photovoltaics in the U.S from 1998 – 2008", the average installed cost of solar photovoltaic systems under 750 kW in size ranged from \$6.50/W to \$9.20/W (Figure 10), while the installed cost of systems greater than or equal to 2 MW in size ranged from \$3.20/W to \$7.60/W (Table 3), with a weighted average of \$5.92/W. The Commonwealth has effectively recognized such scale economies: Under the recently announced Commonwealth Solar II program, the state plans to support smaller installations that would not be able to compete effectively in an S-REC-only market without the additional incentive. Such additional support will help the Commonwealth achieve its desired objectives of stimulating a diverse mix of installations and building a broad-based installation industry. With the support for smaller projects achieved through such other means, the DOER should consider implementing policies that encourage larger installations which take advantage of economies of scale. As currently defined,

generating sources greater than 2 MW (see Green Communities Act, Section 32, Section 11F, (g)) are not eligible for S-REC support. We recommend that the DOER consider clarifying and defining “onsite generation source” in a manner that would allow for development of large solar projects that are able to take advantage of the mobilization and installation scale economies while recognizing the limitations put in place under the Green Communities Act. One such approach would be to define an onsite generation source based on the capacity installed behind a specific meter, rather than based on a definition linked to proximity or ownership of property in which a project is located. Within this framework, developers could pursue larger projects on a single site that has multiple meters within the law, which maximizes economies of scale and increases the cost-effectiveness of solar, reducing the need for a high ACP and reducing cost to Massachusetts ratepayers.

Summary of Comments

We believe that there is significant solar development potential in Massachusetts, and would like to see DOER implement a funding mechanism that uses public funds efficiently to support significant market growth. In particular,

- (1) In order for solar developers to obtain financing, they require a known S-REC sales volume for a known term at a known and sufficient price. The proposed auction design provides a known but insufficient price with uncertainty on when, or even if, the price will be realized. Developers require a known price and term in order to obtain financing. However, the auction as currently designed does not provide a known sales volume since auctions could fail to clear.
- (2) Given economic conditions and what we’ve learned through Commonwealth Solar and through Vermont’s SPEED program, and initial activity from the Massachusetts utilities, CED and CES strongly recommend raising the initial minimum standard of 20 MW of solar in 2010 to at least 50 MW and further still if utility owned solar is to be included in the base.
- (3) DOER should define “onsite generation source” on meter basis, rather than on a property basis, to allow projects to pursue economies of scale through larger developments.

Respectfully submitted,

/s/ Stephen Wemple

Stephen Wemple
Vice President, Regulatory Affairs
Consolidated Edison Competitive Shared Services, Inc.
For Consolidated Edison Solutions, Inc. and Consolidated Edison Development, Inc.
100 Summit Lake Drive
Valhalla, NY 10579
914-993-2149