

# *Cedar Energy Investors LLC*

April 8, 2013

Mr. Dwayne Breger  
Director, Renewable and Alternative Energy Development  
Department of Energy Resources  
100 Cambridge St, Suite 1020  
Boston, MA 02114

## **Comments – Post 400 MW Policy**

Dear Mr. Breger,

Cedar Energy Investors is an investment company that finances, owns, and operates photovoltaic systems via power purchase agreements for small-to-midsized commercial and institutional facilities, typically up to 250 kilowatts in capacity.

Cedar's three principals have extensive PV experience in Massachusetts. Mark Farber was the co-founding CEO of Evergreen Solar and has served as President of SEBANE. John Harper leads Birch Tree Capital LLC, which advises developers and other market participants and specializes in solar and wind project finance. William Osborn has been a long-time consultant and investor in cleantech and currently manages Commons Capital LP and the Massachusetts Green Energy Fund, both Boston-based venture capital funds investing in clean energy companies.

We congratulate DOER on facilitating the current PV market and support your efforts to create a follow-on program to sustain that market growth. Toward that end, we offer the following recommendations.

**Maintain and expand, with revisions, the RPS Solar Carve-Out framework.** While a central procurement model may be more efficient, whether through utility contracts or a feed-in tariff, we believe that the time delay and risk of a poor outcome from a legislative fix outweigh these potential efficiency benefits. An imperfect administrative program is superior to a risky attempt at a legislative fix.

**Uncertainty is worse than complexity.** We need look no further than the IRS tax code to become convinced that business knows how to deal with complexity; in fact, business knows how to exploit, game, and litigate complexity. So, while simplicity and certainty are both laudable goals, if a trade-off is required, pick certainty. Specifically, investors are able, if need be, to manage the complexity of two vintage classes of SRECs or SREC Factors, with separate auctions, floors, ACPs, and other rules.

**Try to mimic long-term contracts.** Most would agree that long-term, fixed-price payments are the most economically efficient form of incentive. Utility contracts, feed-in tariffs, fixed SREC prices all would accomplish this. Uncertainty regarding price level or term lead to ratepayers overpaying because investors discount the incentive levels. Firming the auction floor and narrowing the gap between floor and ACP go a long way

toward capturing many of the benefits of long-term contracts. We furthermore agree with DOER's comments that a stronger floor allows the reduction of ACP.

**Use the auction to strengthen the floor.** Two specific changes in current policy would strengthen the floor and therefore better mimic long-term contracts. First, eliminate the concept of opt-in period completely and allow SRECs to participate in the auction as long as they are outstanding. As discussed elsewhere in our comments, modulating auction floor and ACP prices, either directly or via an SREC Factor, is sufficient throttle control; instead, we suggest using the auction to reduce uncertainty. Second, more importantly, allow SRECs to repeatedly participate in the auction as long as they are outstanding. In the current program, for example, this would likely allow all SRECs generated during the current surplus period to earn the floor price during the anticipated shortage period. Net present value maximizers with patience would therefore have a much higher chance of achieving the floor price. Extending auction eligibility is the single most effective way, in the current construct, to mimic long-term contracts with a fixed price.

**The Calter bill is also an acceptable floor.** We support a utility purchase obligation as a satisfactory backstop. In our view, this obligation should be at the \$285 floor price for SRECs generated by the current program (SREC-Is), and lower ACPs are acceptable.

**Create a second SREC market.** It is critical to isolate the new program from the old. A post-400MW program that materially impacts the economics of past or current investments will be viewed by the investment community as a "taking", i.e., a backward-reaching change in investment rules that undermines the credibility of the entire market. Therefore, if SRECs remain the foundation of the new program, SRECs generated by the new program (SREC-IIs) must be isolated from SREC-Is.

**Alternatively, the SREC Factor could be used primarily to modulate around changing economics over time.** An SREC Factor (SRECs per MWh, declining over time) could be set each year but assigned to a project for its entire operation period based on its commercialization date. For example, a 2015-vintage project might earn 0.95 SREC/MWh for its 10-year tenure, whereas a 2016-vintage project might earn 0.85 – trending toward zero. Such Factors should be fixed for prospective vintages at least one year ahead, but not much more, to balance solar owners' needs for planning with the public policy goal of optimizing the incentive to current market conditions. This approach economically resembles the German feed-in tariff model of locking in most of the system's economics close to when the investment decision is made, while creating a mechanism to track market development speed and costs. This would also avoid creating a separate SREC-II market, since a single floor/ACP window works for all vintages, with the Factor doing the modulation.

**Consider a volume-trigger rather than a fixed cap for the next phase.** The vintage-based SREC Factor concept proposed above can also be used to address the cap concern. The California Solar Initiative has successfully used a volume-based trigger to contain ratepayer cost while providing a long-term view to solar developers. (See Figure 1 at <http://www.cpuc.ca.gov/puc/energy/solar/aboutsolar.htm>). As the market grows, the SREC Factor for new systems would decline while leaving the economics of prior

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investments intact. If the market overheats or lags, the SREC Factor would adjust. A fixed cap is not needed, and overall ratepayer impact can be reasonably closely calculated.

**Continue to support third-party ownership.** We believe that third-party financing promotes market diversity by enabling small or non-taxpaying entities to participate more fully in the solar market. It further lowers the burden on Massachusetts ratepayers by fully utilizing federal tax benefits to support the solar market. If passed by the legislature, a C-PACE financing program in Massachusetts will be more viable if third party financing continues to be an option. The new program should continue to enable, if not foster, ownership by third parties as well as by the direct off-takers.

**Support market diversity, with a focus on host type and size.** We support the public policy goal of promoting market diversity, but we do not see many changes needed. We support a cap on project size to prohibit utility-scale projects from dominating the market, with a "project" definition tight enough to prevent gaming. This cap should be raised over time as the price gap between large and small diminishes (as it has in Germany and other large markets). We do not support creating additional SREC carve-outs or mechanisms specifically for the residential market, because the higher retail energy rate that these projects benefit from (due to lack of a demand charge) is, in our analysis, very close to the needed differential to cover the higher PV system price. In fact, it is the small commercial segment, where Cedar is most active, that is currently the most economically challenging, but we believe that the market's ongoing efforts to lower soft costs will be sufficient. We also do not see any specific requirements needed for non-profits or government hosts as long as third-party financing is not impeded. We do not, in principal, object to the complexity of multiple SREC Factor adjustments, but we do not see that such micro-segment adjustments serve much of a public purpose. For example, third-party financing allows municipalities to participate, but leaves to the market to determine whether a municipality pursues a school rooftop, a parking lot, or a capped landfill. At the same time, they would introduce more complexity and extended rule-making to balance competing segment interests.

We appreciate the opportunity to comment on solar program design at this early stage. We look forward to continuing to support our local market.

Sincerely,



Mark Farber  
President  
Cedar Energy Investors LLC