

**THE DEPARTMENT OF ENERGY RESOURCES NEXT GENERATION SOLAR INCENTIVE STRAW PROPOSAL**  
**COMMENTS OF ENERGY FREEDOM COALITION OF AMERICA<sup>1</sup>**

The Energy Freedom Coalition of America (EFCA) greatly appreciates the Department of Energy Resources' (DOER's) offering Massachusetts stakeholders the opportunity to submit comments on DOER's *Next Generation Solar Incentive Straw Proposal*, which sets forth DOER's proposed approach to implementing Section 11 of H4173. EFCA commends the Department for its commitment to fostering the continued growth of the solar industry in the Commonwealth, and shares its interest in ensuring that the deployment of the next 1600 MW of solar occurs in a manner that is inclusive and sustainable, and increases solar adoption while reducing costs over time. In these comments, EFCA provides initial feedback on key topics regarding the Department's proposed solar incentive program, and respectfully provides suggestions for improvements. EFCA looks forward to working with the Department and other stakeholders and engaging in the dialogue that the working group meetings have so far offered.

**CONCERNS WITH APPLICATIONS TO CUSTOMER-SITED BEHIND-THE-METER SOLAR SYSTEMS**

**First, EFCA notes the urgent need to devise a path forward promptly yet carefully.** With the SREC II program ending, growth within certain sectors of the Commonwealth's solar industry has already ground to a halt, in particular, in the Commercial and Industrial sector. The Solar Energy Industries Association (SEIA) recently wrote DOER to urge that it consider extending the SREC II program until the new solar incentive program is implemented. EFCA strongly supports SEIA's request, and believes that extending SREC II will not only alleviate the current uncertainty facing investors, it will also ensure that the new incentives program presently being developed will not be rushed, will be comprehensive, and will effectively advance a clean energy future at the lowest possible cost.

**Second, EFCA encourages an opportunity for a thorough vetting of the report prepared by Sustainable Energy Advantage, LLC (SEA).** Based upon SEA's report, DOER found a Declining Block Incentive program (DBI) to be the least-cost option, and proposed "contract for differences" payments that would reflect the net difference between a system owner's Levelized Cost of Energy (LCOE), and the generation credit received on the host customer's utility bill. EFCA has several concerns with the report, including that SEA may not have considered "soft" costs such as those associated with system start-up, metering, reporting, developing software to calculate the "net differences" incentive, and launching a complex new system. If indeed SEA's analysis omitted such items, then DOER's straw proposal might not in fact reflect the least-cost alternative.<sup>2</sup>

**Third, EFCA is concerned the proposed structure may inadvertently impact some solar projects more than others, and may mask the value of behind-the-meter renewable generation sites close to load, therefore inadvertently limiting customer choice, slowing solar adoption, and forfeiting opportunities to generally drive down the costs of solar, as well as overall electricity costs.** As we understand it, under the proposed "contract for differences" program, which hinges on the "delta" between the costs of building generation and the values credited to the customer (some that self-generate under a NEM arrangement and others credited at the Average Monthly Clearing Price at the ISO-NE under the Qualifying Facility tariff), solar projects that generate lower credits will entitle a system owner to receive higher incentive payments to make up the difference. EFCA is concerned that such approach may inadvertently disfavor behind-the-meter systems (that have traditionally net metered), where the difference between the costs of building the system and the values the system generates may be slight. Some systems

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<sup>1</sup> EFCA promotes the use of distributed energy resources ("DERs") through advocacy in multiple fora, including public service commission proceedings across the nation. EFCA members provide DERs such as distributed generation, thermal and battery energy storage, microgrids and demand management. Members also provide solar and other renewable generation in all shapes and sizes including products for residential, commercial, government, community solar and utility scale applications.

<sup>2</sup> EFCA notes also that SEA analyzed three types of programs, but did not assess a performance based incentive ("PBI") approach. A PBI may be preferable, and in certain cases, easier and cheaper to implement. EFCA further notes that certainty leads to lower financing costs, and ultimately customer costs, because financiers understandably discount uncertain variable incentive payments such as in SREC II or as proposed in the DBI.

that are compensated less are actually worth less, but under the contract for differences system, those systems would receive make-whole payments that would leave them at artificial competitive parity with resources that in fact are more valuable to the grid and society. EFCA is also concerned the “contract for differences” approach will fail to capture the benefits produced by net metered, behind-the-meter systems. As was noted by the Vermont Public Service Board, because net metered systems – especially behind-the-meter systems -- tend to be located immediately adjacent to the load they serve, they reduce onsite consumption, produce distribution and transmission system cost savings, increase the reliability of the overall system by increasing fuel diversity, and aid utilities in avoiding the capacity charges and transmission charges they would otherwise incur if they were required to obtain power from another source.<sup>3</sup> EFCA is therefore concerned the proposed structure may inadvertently discourage investment in exactly the types of renewable energy systems that produce the greatest values to the electricity distribution system overall, which would simply increase costs to ratepayers over the long term.

## RECOMMENDATIONS FOR STORAGE SYSTEM APPLICATIONS

**EFCA is also concerned that tying the level of the incentive to the amount of solar generation might not be the optimal approach when it comes to pairing solar and storage.** The main cost drivers of battery energy storage systems are power capacity (kW) and energy capacity (kWh capacity), i.e., the size of the battery. If the incentive payment is not tied to the size of the storage system, the program may fail to support a variety of storage configurations. For example, the customer with relatively low peaks of short duration might better manage his or her demand charge by using a smaller battery, than would the customer with high peaks that last for hours. By way of further example, larger batteries in front of the meter may be able to serve more peak load requirements than might smaller systems. Thus, some applications may require a small amount of energy storage compared to solar, perhaps a ratio of 6 kW solar to 1 kW storage, while others may require a ratio closer to 3 kW solar to 1 kW of storage. If the incentive payment is based on the production of the solar, projects that require a lower ratio of solar to storage would be at a disadvantage, and many would not be able to participate in the program.

**DOER might consider establishing a one-time payment based on storage system size for storage systems paired with solar resources.** As other states have done,<sup>4</sup> DOER could tie incentive payments to either energy capacity or power capacity of the storage system.<sup>5</sup> This would prevent storage systems with high power capacity but low durations from taking advantage of increased incentive payments without providing load shifting and reliability benefits to the grid.

If DOER would like to pursue an adder for storage that will be based on the production of the paired solar resource, the adder could be adjusted based on the ratio of solar to storage utilized in a specific project. Projects with a higher ratio of solar to storage would receive a lower adder due to the relatively smaller energy storage system size; and projects with a lower ratio of solar to storage would receive a higher adder to compensate for the relatively larger storage system size.

## ADDITIONAL RECOMMENDATIONS

**EFCA urges DOER to fashion gradual decreases in incentive levels.** In working group conversations held thus far, it has been difficult for stakeholders to project what incentive levels DOER will set, or the extent of the

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<sup>3</sup> See State of Vermont Public Service Board Order entered 6/24/16, Docket No. 8652, *Petition of Green Mountain Power Corporation for approval to offer customers net-metering above the statutory cap pursuant to 30 V.S.A. §219a(h)(1)(A)*, p. 12.

<sup>4</sup> New Jersey’s Renewable Energy Storage Incentive Program offers an incentive of \$300/kWh capacity for storage systems paired with eligible renewable renewables, <http://www.njcleanenergy.com/storage>, and works in conjunction with the state’s SREC program for solar. New York’s NY-Sun program provides solar incentives based annual energy production and also offers a separate energy storage integration incentive as a one-time incentive payment. <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Project-Developers/Commercial-Industrial-MW-Block>. California’s Self Generation Incentive Program offers \$1.31/W incentive for advanced energy storage. <http://www.cpuc.ca.gov/sgip/>.

<sup>5</sup> If payments will be tied to power capacity, then a minimum duration of 2 hours may also be required.

decreases. EFCA therefore takes this opportunity to encourage DOER to set the incentives at levels that will allow for a gradual step down in value, for three reasons. First, such levels would provide solar developers with attainable targets, and therefore certainty, as they lower costs over time. Second, incentive level changes with minimal impact prevent stop/start market scenarios, and permit developers to be able to absorb a loss in revenue if the project falls into the next incentive tier. Third, a gradual step down in value prevents a developer from incurring sunk costs, where the investment made in developing a project isn't wasted or stranded because the drop in tier makes the project non-viable. EFCA believes that the base incentive levels will play a large role in whether the adders should be sustained throughout the program or lowered by tier. EFCA looks forward to gaining a better understanding as Working Group discussions progress.

## **CONCLUSION**

EFCA again thanks DOER for the opportunity to comment on this proposed program, and ask that it continue to enable collaboration among all stakeholders, as we all seek to build an inclusive and sustainable path to the Commonwealth's clean energy future.