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July 11, 2017

Judith Judson, Commissioner
Massachusetts Department of Energy Resources
100 Cambridge Street, 10th Floor
Boston, MA 02116

RE: Solar Massachusetts Renewable Target (SMART), 225 CMR 20.00

Dear Commissioner Judson:

The Coalition for Community Solar Access ("CCSA") thanks the Massachusetts Department of Energy Resources ("DOER"), the Energy and Environmental Affairs ("EEA") staff, and Department of Agriculture Resources ("MDAR") staff for its leadership and efforts to date to design the next generation solar incentive program pursuant to Chapter 75 of the Acts of 2016 (the "Act"), signed by Governor Baker in April 2016.¹ Our goal with these comments is to help DOER meet the requirements of the Act in general, and in particular to design a program that differentiates incentive levels to support "diverse installation types and sizes that provide unique benefits, including, but not limited to, community-shared solar facilities."

CCSA offers these comments as a supplement to the Joint Comments we have already signed onto with a diverse coalition of stakeholders representing all sectors of the solar industry along with advocates. These comments elaborate on the Joint Comments' recommendation to modify adder caps and declines (highlighted as KEY ISSUE #2 in the Joint Comments), and relating to the Joint Comments on the alternative on-bill crediting mechanism (highlighted as KEY ISSUE #4).

Put simply, without the adoption of these recommendations, we believe the SMART program will make permanent the current downturn in the community solar market, causing Massachusetts to lose its historic position as a national leader in solar and clean energy access for all.

Replace the hard cap on adders with a MW threshold that when crossed would trigger a decline in adder value

The Act specifically requires DOER to differentiate incentives to encourage development of community shared solar ("CSS"), among other policy priorities. Implementing an adder cap –

¹ See: <https://malegislature.gov/Laws/SessionLaws/Acts/2016/Chapter75>

specifically one that would limit community solar to relatively the same market share it is projected to represent under SREC II, even though community solar got a late start to the SREC II market and thus remains *underrepresented* in SREC II – is incongruous with the legislative intent of the Act.

Beyond the statutory imperative, the community-shared model represents the true democratization of solar. Fairly compensated, this sector has the potential to ensure that the benefits of solar are available and accessible to *all* who want to participate, regardless of whether or not they own a perfectly-sited roof. The National Renewable Energy Laboratory (NREL) found that up to 78% of residential rooftop area is unsuitable for hosting on-site solar.² It is thus counterintuitive and counter to the intent of the enabling statute to limit the development of the only sector of the market that can serve the vast majority of ratepayers by imposing artificial caps and adder declines that do not accurately reflect the market.

It is important to consider community shared solar in context of other aspects of the SMART program, and evaluate the overall outcomes in terms of opportunity for Massachusetts customers. A minimum of 20% of SMART program capacity is reserved for residential customers who install solar on their roofs. Based on the simplified assumption that at least 75% of customers are not in a position to install solar on their roofs, an equitable outcome for the SMART program would be to have at least 60% of program capacity allocated to those customers.

As stated in the Joint Comments, CCSA opposes DOER's proposal to allow all adders to decline at the same rate as the base rate (4% per block step down). CSS projects incur significant additional costs compared to other projects of similar size and these added costs do not follow the same cost reduction path as hard technology costs.

Specifically, CSS projects bear three types of additional costs compared to similar projects with a single offtaker – all costs that will increase over time, not decrease, which will disproportionately erode the value of the SMART incentive for this specific asset class in the context of a declining block program:

- *Customer acquisition costs*: Each CSS project, by definition, has dozens and, in most cases, hundreds of individual customers. Customer acquisition and subscriber list maintenance represent both a significant *upfront* expense and an *ongoing* expense for the life of the project in order to replace customers who may move or cancel their subscription. This is primarily a labor cost and therefore will escalate over time, rather than decline.³

² See <http://www.nrel.gov/docs/fy09osti/44073.pdf>

³ Total compensation for private industry workers in the greater Boston area is currently growing by 1.9%-2.3% per year. U.S. Bureau of Labor Statistics, *Employment Cost Index – December 2016*, Table 13, <https://www.bls.gov/news.release/pdf/eci.pdf>.

In addition, data from residential rooftop installations suggest that customer acquisition costs are increasing with greater penetration. See "Solar Customer Acquisition Trends Shift with Increase in Web-Based Platforms," *Renewable Energy World*, November 15, 2016, <http://www.renewableenergyworld.com/articles/2016/11/solar-customer-acquisition-trends-shift-with-increase-in-web-based-platforms.html>.

- *Customer service and billing:* As with customer acquisition, customer service and billing is a significant ongoing cost for CSS due to the sheer number of individual customers per project. The failure of the electric distribution companies to adopt automated solutions for bill crediting has resulted in errors and delays that have increased costs for community shared solar providers, and we anticipate these problems will multiply as more projects come online. And while we will assume that at some point, more automated solutions will be implemented that will help reduce costs, customer service is ultimately a labor cost and will therefore likely increase, rather than decrease, over time.
- *Cost of capital:* The cost of capital is higher for community solar than for other solar projects, both because community solar is still relatively new to the market and because much of the project's revenue comes from residential customers rather than investment-grade commercial customers. Interest rates have been at historic lows over the last few years, and the cost of capital is only going to increase rather than decrease in the near future. The Federal Reserve has already raised benchmark interest rates three times during the development of the SMART program and signaled that interest rates will continue to increase in 2017.⁴

If the CSS adder declines from block to block while costs remain the same or, as a result of the unique costs of community solar projects described above, actually increase, the value of the CSS adder will erode materially over the course of the SMART program, and as a result the program will not be successful in driving community solar development.

For these reasons, we recommend the following adjustments to the adder structure:

- Our preferred outcome is to eliminate the cap entirely so that there is no limit on the one solar project structure – community shared solar – that has the potential to reach more citizens of the Commonwealth than any other.
- If DOER does not accept the logic in doing so, CCSA recommends:
 - Replacing the 320 MW “cap” with a “threshold”
 - Replacing the 4% decline in adder value per block with a gradual decline in adder value *after* the threshold is met

For example, DOER could determine an Adder Capacity Threshold of “X” megawatts and an Adder Reduction Rate of “Y” percent such that a given adder value steps down in regular intervals as each capacity threshold is reached. To illustrate, where X equals 320 MW and Y equals a percentage reduction, the first 320 MW in capacity for each category of adder would receive 100% of the adder value; the next 320 MW of capacity in that adder category (MW 321-640) would receive a Y reduction in the adder value, and the final 320 MW would receive a further reduction in adder value.

This alternative eliminates the uncertainty created by an arbitrary cap and makes the scheduled

⁴ Interest rates were raised on December 14, 2016; March 15, 2017; and June 14, 2017. “Fed raises interest rate, signaling confidence in the economy.” *Washington Post*, June 14, 2017, <https://www.washingtonpost.com/news/wonk/wp/2017/06/14/fed-raises-interest-rate-signaling-confidence-in-the-economy/>.

declines in adder value responsive to the market performance of the adder-eligible projects themselves.

Advance Alternative On-Bill Crediting Mechanism

One of the guiding principles of community solar is that participants should receive tangible economic benefits in exchange for their participation.^{5,6} Massachusetts' current net metering construct provides the only mechanism for achieving this principle at this time – with consumers participating in CSS projects able to reduce their energy bills in a simple, easy-to-understand way.

In an environment where net metering is increasingly unavailable due to the net metering caps being met in the vast majority of the state, we have reached a untenable scenario where the only mechanism to ensure a residential, commercial, school, hospital or municipal customer can receive the value from community solar is capping out and the only alternative that has been proposed to date – alternative bill crediting – has been given no timeline or straw proposal and has not even been proposed by the authority with jurisdiction over the matter: the Department of Public Utilities (“DPU”).

Couple this scenario with the fact that SMART projects above 2 MW are ineligible for net metering, and the result is that community solar projects – the one type of solar project that provides local, clean energy access for all – are unable to move forward, despite the clear intent of the enabling statute that directed the growth of this critical project category in the first place.

Moreover, the utility bill is often the center of a customer's experience with their energy usage and energy choices; therefore, it is appropriate that the benefits of their decision to participate in a community solar project be delivered through the platform of the utility bill.⁷ Maintaining the utility bill's role as a clearinghouse for energy transactions will also help avoid tax and securities law complications associated with alternative means of distributing benefits to customers participating in CSS projects.

CCSA appreciates DOER's engagement on this issue and encourages the Administration to more strongly urge the DPU to take up this issue with urgency and immediacy. Without a viable on-bill crediting mechanism on Day 1 of the program, SMART will not achieve its goal of incentivizing CSS or low-income participation. We hope that you will remain steadfast in your support of this vital piece of the program and ensure that the tariff implementing it is filed and approved in a timely manner.

Again, thank you for your work on these emergency regulations and for maintaining an open and collaborative process. We strongly believe these adjustments are necessary to ensure that the SMART program meets its goal of incentivizing development of community shared solar and

⁵ Model Rules for Shared Renewable Energy Programs, Interstate Renewable Energy Council, Inc., June 2013. See: <http://www.irecusa.org/publications/model-rules-for-shared-renewable-energy-programs/>

⁶ Coalition for Community Solar Access Core Principles, 2016. See: <http://www.communitysolaraccess.org/about-us/>

⁷ Model Rules for Shared Renewable Energy Programs, Interstate Renewable Energy Council, Inc., June 2013. See: <http://www.irecusa.org/publications/model-rules-for-shared-renewable-energy-programs/>

does not mark a downturn in the Commonwealth's historic and leading position as a national leader in solar access for all.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Cramer', is positioned above the typed name.

Jeff Cramer
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