MAPC
METROPOLITAN AREA PLANNING COUNCIL

Smart Growth & Regional Collaboration

July 11, 2017

Judith Judson, Commissioner
Massachusetts Department of Energy Resources
100 Cambridge Street
Boston, MA 02114

RE: Comments on 225 CMR 20.00 Solar Massachusetts Renewable Target (SMART) Program Emergency Regulations

Dear Commissioner Judson:

Thank you for the opportunity to provide input on the emergency regulations, 225 CMR 20.00, issued by the Department of Energy Resources (DOER) on June 5, 2017, to implement the Solar Massachusetts Renewable Target (SMART) program. The Metropolitan Area Planning Council (MAPC) would like to commend DOER for its consideration of the extensive stakeholder feedback received on the straw proposal and integration into the final program design presented earlier this spring. MAPC looks forward to working with DOER to revise the emergency regulations to ensure that the incentive program achieves our mutual clean energy goals.

MAPC is the regional planning agency serving the people who live and work in the 101 cities and towns of Metropolitan Boston. Our Clean Energy Department has extensive experience administering both community and regional procurements for energy management services and has supported a number of cities and towns in their efforts to go solar. We have facilitated solar development on municipal sites such as school roofs and parking lots, town halls, public safety buildings, and landfills, as well as for residents, businesses, and non-profits in the communities.

MAPC applauds DOER on its support of solar in the Commonwealth over many years, and appreciates that the Department has strengthened the SMART program significantly since the initial straw proposal presented to the public in the fall of 2016. However, MAPC believes that the emergency regulations would benefit from additional revision in order to ensure the program fulfills its promise to support equitable access to solar for low- to moderate-income communities and further enables cities and towns across the Commonwealth to advance local solar development. Our concerns for these priorities were highlighted during the public comment period last fall in the comment letter issued by MAPC as well as in a joint-comment letter issued by the Cities of Cambridge and Somerville, member municipalities of MAPC.

MAPC would like to submit the following comments and recommendations to improve the SMART program's support for the development of municipal solar and the advancement of equitable access to solar throughout the Commonwealth. Our comments center on four fundamental concerns regarding: (1) the method to determine the base compensation rate, (2) the treatment of public entity solar projects, (3) the treatment of low-income solar projects, and (4) the alternative on-bill credit mechanism. In particular, we would like to highlight our concern regarding the regulation's current definition of public entity tariff generation units and how it unintentionally restricts municipal access to incentives that support the feasibility of local solar projects.

1. **Decrease Rate of Block Decline & Revise Compensation Rate Adders**

The 4 percent decline of the base compensation rate and compensation rate adders per block threatens to impede the financial feasibility of solar development at a market rate early on in the program. Solar industry reports note that, for every doubling of capacity, solar capital costs are reduced by approximately 20 percent.[1] Under the current 4 percent decline in base compensation rate, the SMART program assumes a 28 percent decline in solar capital costs across different market sectors for a doubling of capacity in Massachusetts (1600 MW to 3200 MW). Forecasts through 2020 predict solar capital cost reductions of approximately 2-3 percent in the early years of the incentive program and approximately 1.5 to 2 percent in the later years.[2] MAPC recommends that DOER amend the regulations to a declining rate of 2.5 percent or lower to keep pace with industry predictions and provide a hedge against the likely slowing of federal support.

Additionally, applying the rate of decline to the compensation rate adders may be inappropriate. Landfills, community solar, low-income and municipal projects typically have higher site development and/or customer acquisition and administrative costs than standard projects that do not qualify for adders, and these costs are not likely to diminish significantly during the implementation of the SMART program. MAPC recommends that DOER exclude the compensation rate adder values from the declining rate to more appropriately defray the added costs for the priority project types.

2. **Raise the Auction Ceiling Price & Introduce an Auction Floor Price**

MAPC would like to raise concerns that the ceiling price may be set too low to support the development of solar at present market value. MAPC believes that setting fair pricing during the competitive procurement is of upmost importance because the base compensation rate will determine the viability of priority project areas, such as low-income, community shared, and municipal solar installations. With the current auction ceiling prices, many low-income solar and community shared solar projects would not be viable even within the first block of the SMART program. In addition to raising the auction ceiling price, MAPC recommends that DOER establish an auction floor price to create a pricing "collar" for the competitive procurement to set the base compensation rate. This will protect against below-market rate bids, as well as unreasonably high bids, and preserve the interests of both DOER and the solar industry.

3. **Establish Criteria for Compensation Rate Review**

MAPC understands the importance of providing DOER with an opportunity to review the base compensation rate and adders after the second block has been fully allocated. However, MAPC strongly recommends that DOER provide additional guidance on how the review process will take place. DOER should identify criteria for determining if changes are necessary and provide opportunity during the review for stakeholder input. MAPC also suggests that DOER establish a percentage cap on how much the base compensation rate could be reduced as a result of the review process in order to better mitigate the added uncertainty of a potential mid-program compensation change for solar developers and financers (i.e. no more than the one-block rate of decline or 2.5 percent).

4. **Revise Public Entity Definition**

MAPC is very appreciative of DOER's inclusion of our recommendation to establish a compensation rate adder for public entities in the final program design. We are concerned, however, that the public entity definition in the emergency regulations may unintentionally limit the type of municipal projects that can take advantage of the Public Entity off-taker based adder. To qualify as a Public Entity Solar Tariff Generation

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[1] "The Power To Change: Solar and Wind Cost Reduction Potential to 2025," *International Renewable Energy Agency*, June 2016.
[2] Ibid.

Unit, the regulations stipulate that a project be both located on land owned by either the municipality or other governmental entity and be either (1) owned or operated by a municipality or other governmental entity or (2) have 100% of its output to municipalities or other governmental entities. The section after the "and" is particularly limiting, as cities and towns generally do not look to own solar installations since the financial support provided primarily via tax credits is not available to them. This provision then would serve to restrict most cities and towns to off-taking 100% of the solar output, thereby disincentivizing models in which they could allocate credits to other municipalities or residents who may not have the means or space to host solar. Municipalities may not own much property that is viable for solar development, and certainly many residents face challenges in installing their own solar arrays, from viable rooftops to financial burdens to renter status. MAPC recommends that DOER amend the definition for Public Entity Solar Tariff Generation Units to reduce the percentage requirement so that municipalities or other governmental entities are required to serve as an off-taker of the generated output but are not precluded from pursuing municipally-sponsored community shared solar projects or other similar innovations. Projects like these advance our mutual goals to promote solar, reduce GHGs, and aid cities and towns in their efforts to save money, support their residents, and meet climate goals. This recommendation aligns with the following recommendation to allow the combination of off-taker based adders to enable municipal community shared solar projects.

5. Allow All Projects Over 25kW to Combine Off-taker Based Adders

MAPC recommends that DOER amend the restrictions on combining compensation rate adders to allow Solar Generation Units with capacity larger than 25 kW AC to combine off-taker based adders. This adjustment is particularly important to incentivize and support municipalities in pursuing community shared solar projects as well as low-income community shared solar projects. Under the emergency regulations, if a municipality wanted to enter into a power purchase agreement for a community shared solar project and arrange a schedule Z where the municipality receives 50% of the solar credits and the other 50% go to low-income residents, they would be limited to leveraging a location based adder or the low-income community shared solar adder. For municipal solar project that advance core priorities of the Baker Administration such as community shared solar and low-income access, DOER should enable the municipality to maximize available compensation rate adders to potentially secure the project's feasibility of moving forward.

Additionally, we recommend that the limitation on projects under 25kW AC to only combine their base compensation rate with the energy storage adder be removed. The ability to combine adders for small-scale and residential projects can help to ensure that the SMART program best advances the policy objectives of encouraging the equitable development of solar across the Commonwealth.

6. Create a Compensation Rate Adder for Multi-Family Properties

Another barrier for municipal solar within MAPC's more urbanized member communities is the complexity of implementing solar on multi-family properties. For example, in both Cambridge and Somerville, over 90% of residents live in multi-family properties. Due to the added complication of installing solar on multi-family buildings with multiple decision-makers and the potential for multiple interconnections, our highly urbanized municipalities have found that multi-family buildings have a much lower rate of solar adoption than single-family homes. This is, in part, because fewer installers are willing to work with multi-family homeowners, and those that do often charge higher fees. These types of soft costs represent roughly two-thirds of the total price of an installed residential system, according to the U.S. Department of Energy. In order to unlock the potential generating capacity of multi-family properties, MAPC encourages DOER to consider including an off-taker based compensation rate adder for multi-family properties. Such an adder would help overcome the added financial and transactional costs of installing solar on multi-family buildings.

7. Broaden Low-Income Customer Definition

MAPC appreciates DOER's conscientious efforts to design a program that supports increased access to clean energy for low- to moderate-income residents through the base compensation rate factors and compensation rate adders. However, as currently outlined in the emergency regulations, the program falls short in providing an incentive structure that strengthens the viability of low-income residential solar and low-income community shared solar projects. The current definition for "low-income customer" limits eligibility to the utility R-2 rate class. As we outlined in our comments on the straw proposal, using the R-2 rate class as the basis for a low-income screening leaves out many lower income renters as well as moderate-income customers that may also struggle to pay their electricity bills. This definition should be expanded so these groups are included. One pathway for achieving this without extensive income-qualification programs would be to additionally incentivize solar projects that benefit customers living in Environmental Justice communities, as currently defined by the State.[3] Moreover, by broadening these definitions to be inclusive of demographic factors beyond level of income, the program will better address the disproportionate environmental burden these communities face due to the changing climate.

8. Provide Appropriate Support for Low-Income Residential Solar

The supplementary guidelines for low-income generation units require that 100 percent of the output go to a low-income customer to qualify as a Low Income Solar Tariff Generation Unit (i.e. low-income residential solar). MAPC believes that this requirement is too restrictive and assumes low-income customers have the means to finance a solar installation in which they receive 100 percent of the output. For low- and moderate-income households, high upfront costs and strict credit score requirements are barriers to financing the installation of solar on their homes through conventional models such as upfront purchases, loans, and power purchase agreements. Because of this, new financing models are necessary to increase access to solar for low- to moderate-income homeowners. MAPC recommends that DOER revise the guidelines to provide flexibility for more viable financing models that enable the installation of low-income residential solar.

9. Remove Caps on Compensation Rate Adders & Create Set-Asides for Priority Policy Objectives

The 320 MW caps for each compensation rate adder across all of the capacity blocks unnecessarily limits support for municipal solar, community shared solar, and low-income solar. Setting the same MW capacity cap for all adders assumes that demand and project viability will be equal for all project types. Additionally, the caps introduce a variable of risk and uncertainty for those pursuing financing for a solar project, particularly for those eligible for both location based and off-taker based adders. For these projects, there would be no guarantee that both adders would still be available at the time the project was ready to move forward.

MAPC recommends that DOER remove all adder caps and instead establish sufficient set-asides for Low-Income Community Shared Solar Tariff Generation Units and Public Entity Solar Tariff Generation Units in all 200 MW blocks as has already been done for projects less than 25 kW AC. Municipal solar projects can take at least six months to a year to fully develop due to public procurement requirements, facility schedules, and local approvals processes. By having a certain amount of each block reserved for these projects, the longer lead times required for both low-income community shared solar and municipal solar projects would no longer be a barrier to these projects accessing the compensation rates offered in the first block of the program.

10. Establish Guidelines for Alternative On-Bill Credit Mechanism

At this time, we are concerned that the Alternative On-Bill Credit mechanism established by the emergency regulations is not clearly defined and does not appear to provide an adequate alternative to net metering in its current form. The emergency regulations do not define what the "applicable credit value" would be based on to determine the incentive payment under the alternative on bill credit mechanism. Net metering remains

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[3] Massachusetts Executive Office of Energy and Environmental Affairs Defines Environmental Justice communities as census block groups whose: annual median household income is equal to or less than 65% SMI, 25% or more of the residents identify as minority, or 25% or more of households having no one over the age of 14 who speaks English only or very well (Limited English Proficiency).

a key component to municipal, community shared, and low-income solar project viability and without action in the legislature to raise or eliminate the net metering caps, it will continue to be a barrier to solar development across Massachusetts. MAPC believes that, at a minimum, DOER should issue guidelines on the structure of the Alternative On-Bill Credit Mechanism as they did for other elements of the regulation such as energy storage, brownfields, low-income, and statement of qualification reservation period.

In summary, MAPC would like to make the following recommendations to DOER to ensure that the SMART program effectively supports the continued development and expansion of solar throughout the Commonwealth:

1. Decrease the rate of the declining blocks to 2.5 percent, and eliminate the declining rate for compensation rate adders.
2. Raise the auction ceiling price to accurately reflect market costs in Massachusetts, and introduce an auction floor price to ensure fair results of the competitive procurement.
3. Establish guidelines and criteria for the 400 MW review process.
4. Remove barriers from the public entity definition to ensure cities and towns are able to leverage the compensation rate adder for municipal community shared solar projects.
5. Allow projects larger than 25 kW AC to combine off-taker based adders to encourage projects that maximize pursuit of all policy objectives.
6. Create an off-taker based compensation rate adder for multi-family properties.
7. Broaden the low-income customer definition to equitably support those with the greatest barriers to accessing the benefits of solar.
8. Revise the definition of Low Income Solar Tariff Generation Units to appropriately support the development of low-income residential solar.
9. Remove the 320 MW cap on all compensation rate adders, and instead establish sufficient set-asides for low-income community shared solar and public entity projects in addition to the set-aside for projects under 25 kW AC.
10. Issue further guidance on the structure and procedures for the alternative on-bill credit mechanisms, specifically addressing how the mechanism could support low-income and community shared solar projects.

Thank you for your consideration of MAPC's comments and attention to these important issues as DOER moves forward to implement the SMART program. Please contact me directly at cpeterson@mapc.org or 617-933-0791 with any questions.

Sincerely,

Cammy Peterson
Director of Clean Energy, MAPC

Cc: Michael Judge, Director, Renewable and Alternative Energy Division