

Joint Comments of the Solar Energy Industries Association, the Coalition for Community Solar Access, MassSolar, the Northeast Clean Energy Council, the Solar Energy Business Association of New England, and Vote Solar

**SMART 400 MW Review & Expansion Proposal
9/27/19**

I. Introduction

The Solar Energy Industries Association, the Coalition for Community Solar Access, MassSolar, the Northeast Clean Energy Council, the Solar Energy Business Association of New England, and Vote Solar (the Solar Commenters) on behalf of their more than 100 member companies and constituents, appreciate the opportunity to provide these detailed comments on the proposed program reform and expansion plan for the Solar Massachusetts Renewable Target (SMART) program.

The SMART program has been successful in stimulating solar development in many forms in Massachusetts and the 400-megawatt (MW) review represents an opportunity to enhance the program while ensuring the long-term viability of solar and storage markets in the Commonwealth. We appreciate the effort from Department of Energy Resources (DOER) staff to address certain issues with SMART's implementation. While our organizations support many of the proposed changes, we are also very concerned about the impact of several proposals included in the draft plan.

The solar industry in Massachusetts is diverse, with distinct market segments serving different customers. While several very solid reforms included in DOER's plan help certain market segments, other proposals, if enacted, would have a detrimental impact to businesses based and operating in the Commonwealth.

These comments reflect industry consensus around a limited set of issues.¹ Without a vibrant, sustained SMART Program, Massachusetts will slow solar deployment for certain solar market segments making the Baker – Polito Administration's clean energy and climate goals far more

¹ Individual trade associations, companies, and organizations will be filing detailed comments on other specific topics.

difficult and more expensive to achieve. We appreciate your consideration of these recommendations.

II. At least 3,200 MWs should be added to the SMART program to keep Massachusetts on track toward meeting its climate change and clean energy goals

The Solar Commenters appreciate DOER's proposal to expand the SMART program to address the waiting lists and provide market certainty. Nonetheless, 800 MW is insufficient to provide market certainty, is unlikely to meet future customer demand, and will not keep the Commonwealth on track to meet its renewable portfolio standard (RPS) requirement of approximately 35 percent by 2030 and Global Warming Solutions Act (GWSA) requirements of reducing greenhouse gas emissions by 80 percent by 2050. The Solar Commenters instead call for an at minimum 3,200 MW expansion to the SMART program.

An expansion of 800 MW will only temporarily address the waiting lists in the Eversource West, National Grid (Massachusetts Electric), and Until service territories, and is unlikely to provide the four to five years of runway estimated by DOER. DOER's projections show that even when accounting for applications outside the opening week period, applications have steadied at approximately 56 MW per month. At that rate, the remaining capacity for the SMART program will be reserved shortly and an 800 MW expansion would last less than two years, especially when factoring in the set aside for sub-25kW projects.

Furthermore, the current project waiting lists mentioned above have likely pushed application rates of projects downward over the past several months. The small sample size of project applications over the past few months is likely not representative of the potential future application rate with an expanded program. And the forthcoming step down in the federal investment tax credit (ITC) will likely accelerate project development and the pace of applications for the remainder of 2019.

Recent studies have shown that Massachusetts (and New England as a whole) needs to deploy significantly more renewables to achieve its statutory goals. According to a recent Brattle Group study, reaching 2050 greenhouse gas (GHG) reduction goals in New England will likely require four to seven gigawatts (GW) per year of new clean energy resources, including two to five GW

of new solar and two to three GW of new wind per year on average.² Massachusetts represents around about half of that need, and so Massachusetts will likely need at minimum one GW of solar per year on average through 2050 or five GW of new solar through 2025, not the 800 MW through 2025 that DOER has proposed. Vote Solar’s recent study showed similar trends. Vote Solar estimates that between 2,900 and 3,600 MW of additional solar is needed for the Commonwealth to reach its current RPS requirements by 2030.³

The Solar Commenters also note that the current cap on SMART – and a small increase of 800 MW – undercuts one of the greatest attributes of a declining block program: transparency and long-term visibility, which leads to market stability. A declining block program has the potential to alleviate start/stop cycles in development, and the uncertainty and risk associated with such cycles. Unfortunately, the previous backlog of “stopped” projects was not fully anticipated and this backlog of projects threatens to disrupt SMART if the program isn’t significantly expanded.

For all these reasons, the Solar Commenters believe an expansion of at least 3,200 MW is needed and reasonable. At least 3,200 MW will give SMART an opportunity to operate for years to come. This means that the SMART program can break the start/stop cycle, and DOER will not have to expeditiously execute another set of emergency regulations in one to two years.

a. Future capacity block rates should decline by no more than two percent per block for all projects, not just behind the meter (BTM) projects

The Solar Commenters agree with DOER’s concern that base compensation block rates declined more rapidly than intended. As part of the initial SMART program design, and declining block solar programs more broadly, the rate of decline between capacity blocks was intended to track projected declines in solar component costs. However, the delay between the end of the Solar Renewable Energy Credit 2 (SREC) trading program and the start of the SMART program created a backlog of large, mature projects that were unable to meet the mechanical completion deadlines for SREC 2, simply waiting to submit applications. Instead of the intended gradual transition between block rates, once the SMART program opened, a large volume of applications

² [*Achieving 80% GHG Reductions by 2050: Why the region needs to keep its foot on the clean energy accelerator. Brattle Group. September 2019. At v.*](#)

³ [*Clouds Over the Solar Industry in Massachusetts: Inconsistent Policy Slows Growth. Vote Solar. September 2019 at 11.*](#)

for projects filled up the available capacity and resulted in cycling through SMART's blocks in a matter of months, not years.

Based on the current block status, base incentive rates in the large project category have dropped by nearly 25 percent in National Grid's and Eversource West's service territories. In contrast, per the U.S. Solar Market Insight Q2 report released in September 2019, national solar product pricing from Q2 2018 to Q2 2019 show only a seven percent decline in pricing for the non-residential sector, with some states having much lower declines based on labor costs and permitting requirements.⁴ Solar firms and advocates for solar remain concerned that based on this rapid rate of decline compensation rates blocks 6-8 (and beyond proposed blocks 9-12) may not support project development. The Solar Commenters are concerned that the program may yet experience substantial attrition from the existing blocks, particularly in National Grid and Eversource West as customers find they are unable to finance projects at the current lower-block rates.

For these reasons, the Solar Commenters support the intent of the proposal to reduce the rate of decline in the new blocks. However, this proposal should be modified to reduce or stabilize the rate of decline between blocks for all project types – not simply BTM. Based on our review of national and regional pricing data, the Solar Commenters see no justification for treating BTM projects differently than standalone projects. Further development of standalone projects is essential if Massachusetts is to meet its clean energy and climate goals.

In addition to slowing the rate of decline between the blocks, we recommend DOER consider adding more flexibility to the regulations themselves. DOER should modify the regulations setting the base rate decline ceiling but give DOER's Commissioner additional discretion to slow or stop the rate of decline based on market conditions.⁵ This flexibility would allow DOER to respond more quickly to future market changes without going through a detailed regulatory process. Furthermore, we encourage DOER to collaborate with industry partners to understand the changing nature of market conditions and policy impacts, so all parties are working from the same set of assumptions.

⁴ *U.S. Solar Market Insight Report, Q3*. Wood Mackenzie/SEIA, September 2019. At 36.

⁵ For example, the step-down of Federal Investment Tax Credit in 2020 is likely to have a significant affect on the solar markets.

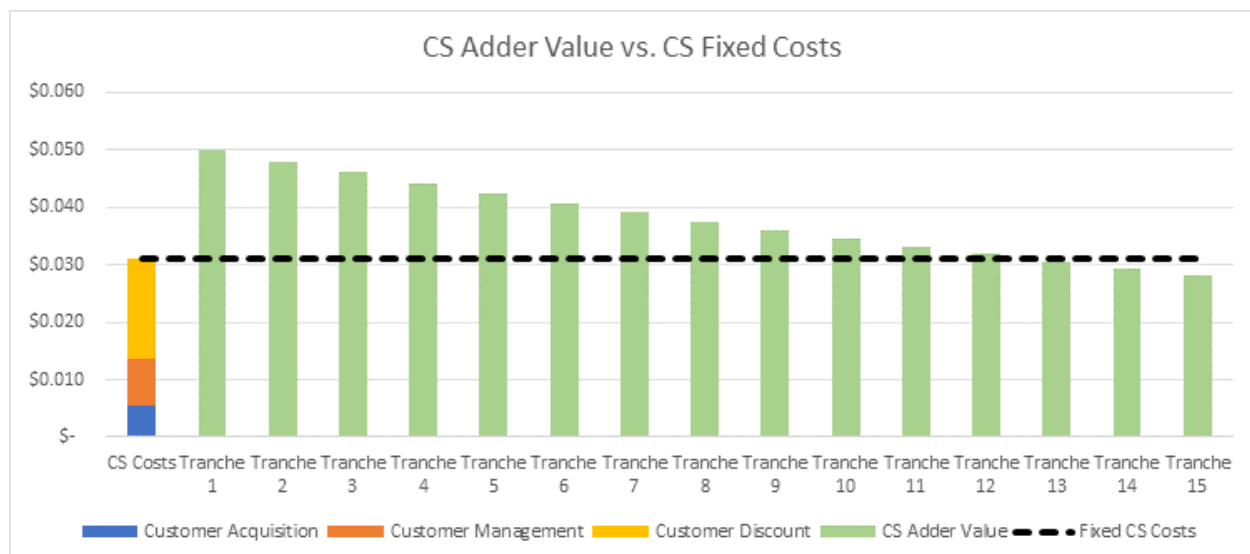
b. Stop step downs for off-taker adders in addition to location-based adders

DOER is proposing to stop the adder step-downs for location-based adders because, as stated, there is evidence that most of projects with these adders have fixed incremental costs and/or achieve policy objectives.⁶ Similar evidence shows off-taker adders should be fixed as well for these same reasons.

The enabling legislation is clear on this point regarding off-taker adders as it authorized the program rules to “differentiate incentive levels to support diverse installation types and sizes that provide unique benefits, including, but not limited to, community-shared solar facilities, low-income solar facilities and municipal or other governmental entity-owned solar facilities.”⁷ In the case of community shared solar, additional costs are incurred related to customer acquisition, customer service, managing customer turnover, and administrative complexities that projects not directly benefitting customers do not face.

The illustrative analysis in Figure 1. shows that the current tranche declines are beginning to diminish the value proposition for community solar customers, thereby raising concerns about parity and equitable access to renewable energy generally.

Figure 1.



⁶ [DOER SMART Program 400 MW Review. Slide 10.](#)

⁷ Chapter 75 of the Acts of 2016.

c. Reallocate community shared solar adder tranche value (Slide 30)

The Solar Commenters appreciate DOER's proposed flexibility for projects that have claimed the CSS Adder. In the event that projects elect to remove their CSS adder designation, we recommend that DOER add the capacity back to the current open tranche, so that community solar adder capacity would not be inadvertently lost.

III. DOER's land use proposals should be substantially revised

The Solar Commenters appreciate DOER's stated objective to address the conservation impact of siting solar.⁸ The industry shares the goals of preserving community character, siting projects responsibly, and protecting environmentally sensitive lands across Massachusetts. However, DOER's current proposals fail to strike the appropriate balance, risks singling out solar development among other land use options and would be untenable for firms developing community solar and large standalone projects. As a result, these elements of DOER's proposal should be substantially revised.

The net impact of these proposals would be to stop large solar development in its tracks, drive up the overall cost of the state solar program for all ratepayers (larger projects have lower base compensation rates), limit access to the benefits clean energy can provide for tens of thousands of customers who cannot install solar on their own property, and potentially result in the layoffs of thousands of employees in the Commonwealth's solar industry.

DOER's proposals on this issue abandon the regulatory principle of incrementalism, proposing aggressive and abrupt policy changes targeting specific market segments. Furthermore, DOER's proposals also affect projects currently in late-stage development, which if adopted, would result in millions of dollars in lost investment. Lastly, the proposals advanced are contrary to Chapter 75 of the Session Laws of 2016 that states the solar incentive program (i.e. SMART) should support "diverse installation types and size that provide unique benefits, including but not limited to community-shared solar facilities ..."⁹

⁸ [DOER SMART Program 400 MW Review. Slide 4.](#)

⁹ Chapter 75 of the Acts of 2016.

a. The five-fold increase in the subtractor would stifle large project development taking cost efficient projects out of the SMART program

DOER is proposing to increase the current subtractor for projects in Land Use Categories 2 (Cat 2) and 3 (Cat 3) by five times for all new projects. Under DOER's plan, the subtractor for Cat 2 would increase to \$0.0025 per kWh per acre impacted, and for Cat 3 would increase to \$0.005 per kWh per acre impacted. These proposed increases would result in subtractors ranging from a few hundred thousand dollars in the case of smaller Cat 2 projects, to subtractors amounting to many millions of dollars, in the case of large Cat 3 projects. If promulgated as proposed, this would likely remove a large portion of the most cost-efficient projects from the program altogether.

While the Solar Commenters recognize that concerns from conservation community and municipalities have been raised, we have not seen any publicly available data on projects funded by SMART that would justify or explain the need for such a significant increase in the subtractor. We would welcome a discussion informed by data to develop a set of more workable recommendations that achieve the goal of continuing to cost-effectively deploy clean energy while directing solar development toward the most appropriate areas.

Based on SEIA's internal analysis of publicly available SREC data, solar development under the SREC 1 & 2 had a minimal impact on Massachusetts open space. In fact, SREC 2 successfully steered large project solar development toward industrial properties, landfills and brownfields. And less than one tenth of a percent of all SREC projects occurred on land categorized as forest land.¹⁰ In addition, even if all ground mounted solar projects currently approved under SMART were to be constructed, the total acreage affected would amount to less than one tenth of one percent of the Commonwealth's open space.¹¹ Instead, the Solar Commenters seek to work with

¹⁰ SEIA analyzed larger SREC 1 & 2 project location data and found that solar projects on forested land as a share of the Commonwealth's total land acreage was 0.08 percent.

¹¹ Including waitlist projects, 713.7 MW of projects without location-based adders have received SOQs as of DOER's most recent update (Aug 19). Assuming each MW takes, on average, 5 acres, this would amount to 3,568 acres of land in solar if all projects are able to proceed to construction. Massachusetts has over 5 million acres of open space, meaning that current SMART applications would amount to 0.07% of the Commonwealth's open space.

DOER to develop a more balanced set of solutions with a revised subcontractor that works for industry and achieves DOER's goals.¹²

b. Equip communities with resources to better handle solar applications and apply a reduced subcontractor to projects complying with local zoning

DOER also proposes making the new subcontractors apply to more projects. Currently, only projects in land use Cat 2 and Cat 3 are subject to the existing subcontractors. In DOER's draft proposal, projects currently complying with established local zoning rules would be subject to the Cat 2 subcontractor.

One of the stated objectives of this proposal is to further discourage large project development and to reduce the volume of applications in small and mid-sized communities, where local planning or zoning staff may not be equipped to process solar permit applications.

The Solar Commenters recommend DOER better equips local planning boards with the technical assistance they need to evaluate applications. For example, the Green Communities Division could be tasked with helping localities make decisions about proper solar siting.¹³ DOER could also issue siting guidance to these communities. With DOER's assistance, localities should still be empowered to make informed decisions on proper solar siting.

This kind of technical assistance would help towns seeking more solar projects and installations. As DOER is aware, many localities benefit from increased revenue from solar installations. Solar project payments to local governments are stabilizing local finances and proposals that undermine the viability of these projects would hurt towns, cities and school districts.

The Solar Commenters could support DOER's proposal to move projects currently complying with established local solar zoning rules from Cat 1 to Cat 2 on a going forward basis if, after data sharing and working together as requested above, a more balanced set of solutions with a revised subcontractor is developed. This proposal balances DOER's concern about firms using

¹² DOER should consider an alternative, more nuanced approach in which projects would have the option of paying a third party such as a town or conservation trust to conserve land of equivalent value, rather than being subjected to a subcontractor.

¹³ The New York State Energy Resource and Development Authority for example published a toolkit for municipalities and local governments to help them making siting and zoning decisions and pass appropriate local laws.

current zoning to avoid subtractors, against the significant financial impact the current proposal would have on the industry. As proposed, however, this Cat 1 eligibility change coupled with the currently proposed fivefold increase would have a major negative impact on projects and would result in many proposed projects not moving forward.

c. SMART policy changes should not adversely impact projects at advanced stages of development

DOER proposes that projects with all required application documentation as of the filing date of the SMART 400MW review emergency regulation would be exempt from the new land use requirements. This proposal fails to recognize the considerable upfront spending that projects make during the development process.

The solar development process for large projects typically occurs over 12-24 months with firms spending money to: lease appropriate solar project sites, conduct site surveys and title reviews, begin the process of obtaining local permits, commence sometimes costly environmental impact or other required project studies, and begin the interconnection study process which requires a considerable up-front payment depending on the size of the project.¹⁴

Furthermore, with approximately 400 projects across the Commonwealth in some stage of development study, it's fair to assume that more than half – roughly 250 – require signification interconnection and permitting work involving large up-front costs. Therefore, it is reasonable to estimate that more than \$50 million has been invested based on an expectation that the current land use rules would either remain intact or apply prospectively to new projects.

Notably, a substantial portion of these projects were included the National Grid cluster study with far-reaching and unexpected implications for their developers. The cluster study is currently preventing MW from even moving through the interconnection process for the purposes of SMART eligibility, and the timeline for resolution remains complete opaque for developers. Similarly, the now well-known sequential study rules in Eversource have delayed

¹⁴ For large projects (between 2 MW to 5 MWs) companies report these costs can be greater than \$200,000.

interconnection processing for otherwise mature solar projects for more than a year in many cases.

Radically increasing the size of the subcontractor, and making new projects subject to the subcontractor, would put these investments at risk and would disrupt the project development pipeline.¹⁵ Instead, the solar industry recommends that DOER follow its own example, set under previous solar programs, by adopting a clear transition process that reflects reasonable recognition of the project development cycle.

Therefore, the Solar Commenters suggest that the least disruptive approach would be for DOER to prospectively apply any new land use requirements to projects achieving SMART eligibility upon the later of i) six months following the date on which the Solar Program Administrator begins accepting applications for SMART capacity beyond Block 8 (or, in the case of Nantucket, Block 2, and, in the case of Unitil, Block 4) in the respective utility service territory, and ii) six months following the effective date of the revised SMART regulations.

d. We support the creation of the pollinator adder at the proposed levels

The Solar Commenters support the creation of the pollinator adder, the level of the adders, and DOER's proposal to make this adder available to existing and new projects.¹⁶ Designing solar projects to encourage the use of native plants helps not only preserve the rural community character of many sites, but should also help create new habitat for important, and increasingly threatened species. All projects adopting best practices established by the UMass Amherst Clean Energy Extension should be eligible for the adder.

e. DOER's proposed definitional changes to the Dual Use regulations require further clarification, and we do not support the new size restriction for this innovative program, which has widespread support in the agriculture community

¹⁵ Given that the projects in the waiting lists in the three utility territories that have already submitted a complete application but have not yet been granted a statement of qualification or SoQ would be grandfathered under DOER's proposal, the updated requirement would likely only apply to the Eversource East territory.

¹⁶ The level of the adder as proposed appears adequate to achieve the desired results, however, it is dependent on the cost of the UMass best practices, and any fees to participate and receive certification, which are currently unknown.

Broadly speaking, the Solar Commenters supports the efforts of DOER and Massachusetts Department of Agricultural Resources (MDAR) to encourage the proper and beneficial siting of solar on agricultural property. Very often for family farms, leasing a portion of their land to a solar project can mean the difference between staying in business for another generation or selling the farm to a more permanent development such as housing and shutting down the family enterprise for good.

Although we continue to analyze the definitional changes proposed and need more clarification of intent by DOER, it appears these changes are intended to make a broader group of agricultural lands eligible to receive the dual use adder.

However, the Solar Commenters oppose DOER's size limitation recommended for these projects. We see no compelling rationale to justify subjecting dual use projects to different DC size limitations than projects in the rest of the program. The DC size limitation proposed would negatively impact dual use project economics and effectively disincentivize developers from choosing this type of project that preserves and, in many cases, expands agricultural use. We believe that the DC size limitation goes against the vision of the program and penalizes farmers for wanting to financially stabilize their farms by participating in the clean energy economy.

To further improve this innovative program that has strong support from the agricultural community, DOER and MDAR should streamline to dual use certification process, and clarify requirements for agricultural yields, shading, and one size fits all height stipulations. We further recommend, MDAR brings on additional consulting assistance to help process applications more quickly. Individual companies will be submitting more technically detailed comments on this proposal and we strongly encourage DOER to give these recommendations careful consideration.

IV. Revisions for Behind the Meter (BTM) projects serving on-site energy needs

The Solar Commenters commend DOER for its focus on supporting the development of BTM projects by expanding the Alternative on Bill Credit (AOBC) to BTM systems. Such an action will help close the financial gap between standalone and BTM projects. When paired with energy storage, BTM PV systems can provide additional locational and interconnection benefits as well. We do note, however, that even under the AOBC expansion, the compensation for BTM systems may not achieve parity with a comparable standalone system. While the Solar

Commenters support DOER's proposals to improve the economics of BTM projects, if limited to these changes, there will be minimal if any progress in the BTM C&I segment, especially in National Grid and Eversource West.

DOER should consider requiring a monthly netting of electricity imports and exports for BTM systems that opt for AOBCs. While we acknowledge that this proposed change to the SMART program will require a tariff amendment, we urge DOER and the DPU to expedite this change to bring the desired market signals to the program as quickly as possible.

While we appreciate the Department's effort to expedite the rollout of the 400 MW Review through the Emergency Regulations, we are concerned with the implementation of these changes since the DPU Tariff approval and Order will take place almost a full year afterwards. As the timeline was currently proposed by DOER, there could be an almost 12-month delay between the Emergency Regulations and DPU Order; therefore, the solar projects and offtakers could stand to lose out on nearly a year of revenue for generation exported to the grid. We encourage DOER to consider ways to expedite solutions for these customers.

We also support DOER's efforts to adjust the Value of Energy (VOE) calculation for BTM systems but believe that this concept requires more clarity on how the proposal will be implemented. DOER should more precisely spell out the variables that affect the VOE calculation as well as the specific timing of when such an adjustment will take effect.

DOER should also consider adopting a roofing adder as part of this proposal. One impediment to commercial and industrial roof top solar is the age and condition of rooftops, which often stands in the way of BTM installations. A clear mechanism to overcome this barrier, either funded by DOER or through a grant by MassCEC can promote BTM solar and help encourage the further deployment of rooftop solar projects.

V. Adopt and improve proposals to clarify metering requirements

The SMART program has faced fundamental challenges regarding workable metering requirements for a variety of solar plus storage use cases as well as non-paired solar. Ensuring that solar plus storage projects can fully participate in SMART is a necessary part of this review. Additionally, removing unnecessary obstacles to deployment of solar will help SMART achieve program goals. We commend DOER's proposed changes to the operational and metering

requirements; however, we believe that additional changes need to be made to fully address these issues.

First, the Solar Commenters support DOER's proposal to require the Electric Distribution Companies (EDCs) to accept revenue-grade meter readings from customer-owned devices to unblock the market and help drive innovation. We were pleased to see the straw proposal allow this for AC-coupled energy storage systems. Further, we understand that DOER is supportive of also imposing the same requirement on EDCs for DC-coupled systems. The Solar Commenters support DOER's proposal which will clear a path for the development of AC and DC-coupled energy storage systems in the Commonwealth.

Second, residential solar installations have also faced significant interconnections delays even when not paired with storage. This is due to onerous, expensive, and time-consuming processes around meter socket installation, e.g., which can require multiple utility and developer site visits. We recommend that, where a customer's system has a certified revenue grade meter (RGM), the RGM may be used instead of utility-owned meters, regardless of whether the solar is paired with storage or not.

Allowing customer owned RGM reporting for both AC and DC coupled systems would level the playing field between energy storage use cases and would allow for full participation of solar plus storage facilities in the SMART program. Additionally, extending this protocol to solar not paired with storage will also increase deployment, decrease costs and improve customer experiences without sacrificing reporting accuracy or data security.

Finally, the Solar Commenters understand the intent behind DOER's proposal to impose a three percent flat discount rate for DC-coupled systems that measure production on the DC side of the inverter. However, we believe that a two percent discount rate is more appropriate given that the combined expected loss from the inverter and the expected loss from the transformer falls in a range.

VI. The Solar Commenters supports the recommendations to encourage public projects but recommends adding more lead time to the development process

The Solar Commenters support increasing the size of the public adder from \$0.02 to \$0.04/kWh. We agree with DOER that the current adder is insufficient to encourage the development of

public projects. Increasing the adder should make the economics of these projects more attractive and result in more cities, towns and school districts pursuing solar projects. Furthermore, we support exempting public offtaker projects from Land Use Cat 2 & 3 penalties, wherever they are sited.

We appreciate DOER's goal of providing more time for public projects to be constructed, further encouraging localities to pursue these projects, but the additional several months (for an 18-month reservation period) may not meet DOER's objectives. The delay for siting public projects comes prior to construction during the lengthy public bidding process to select a contractor. DOER is proposing to allow more time for project construction and completion. Instead, we recommend DOER account for the long period of time it takes municipalities to enter into arrangements with a developer after issuing a request for proposal.

Another barrier to public projects being able to access the SMART program is the requirement that public offtaker projects be sited on public land. This requirement limits access to this program to only the small number of public offtakers with sufficient public land on which to locate a new solar array. Removing this barrier—which applies only to public offtakers and not to other types of customers—would significantly increase the likelihood that towns and cities could benefit directly from the SMART program.

VII. Undefined interconnection adder/subtractor should be excluded

The Solar Commenters are concerned with the introduction of the “Interconnection Adder/Subtractor” concept. The concept lacks both substance and values, and the rationale for the concept is unclear. While we remain open to a more developed proposal for an adder to encourage projects to locate in areas where they can reduce distribution costs or increase reliability by addressing load pockets, or congestion, market signals already deter interconnections on congested distribution lines. These interconnection upgrade costs can be in the millions of dollars. Many developers will not proceed if their interconnection study shows that significant grid upgrades are needed since the related construction costs and timeframes will render projects uneconomical; as high interconnection upgrade costs are already a barrier to development, there is no need to further penalize projects through a subtractor.

DOER states that it is working with the utilities to obtain data, indicating that it – like all stakeholders – lacks the information upon which to base a recommendation or proposal. The Solar Commenters encourage DOER to obtain and share this data but refrain from establishing an interconnection adder/subtractor unless and until it has conducted a more thorough and inclusive process. Access to accurate and transparent data is an essential first step in all discussions relating to modernizing the grid and importantly to plan for the integration of distributed energy resources (DERs). The type and granularity of data are important. Massachusetts lacks hosting capacity maps, for example, which when done well, can provide instructive information regarding the amount of new DERs that can be accommodated at a location on the grid without significant upgrades. Hosting capacity maps and analyses can also be developed and used to pro-actively forecast growth and prioritize grid upgrades in an orderly fashion to incorporate more DERs. Multiple state public utility commissions are requiring utilities and stakeholders to work together to establish the appropriate methodologies for developing hosting capacity analyses, for example, in New York, California, Hawaii and Minnesota. For developers, increased access to this kind of data can help inform and guide development decisions, and ultimately save time and effort in the interconnection process.¹⁷

Separately, DOER indicated that it was proposing to execute this concept via a guideline as opposed to including it as part of the SMART regulation. This suggestion undoubtedly would give DOER more flexibility when it comes to implementing the proposal, but it should not be pursued in this manner. Specifically, SMART’s compensation base rate methodology, generation unit capacity rate factors, adder and subtractor values and declining percentage rates are all established per DOER’s SMART regulations, not guidelines. Further, per SMART regulation 225 CMR 20.02, a *guideline* is defined as “A set of clarifications, interpretations, and procedures, including forms, developed by the Department to assist in compliance with the requirements of 225 CMR 20.00.” Since there is no requirement established in the regulations in the first place, implementing this concept via guideline is inappropriate.

VIII. The Solar Commenters support additional reforms to serve low-income customers

¹⁷ Assuming the hosting capacity and interconnection use cases are both selected as the motivators the host capacity analysis undertaking; see IREC’s Regulator’s Guide to Hosting Capacity Analyses for Distributed Energy Resources, December 2017.

To date, the Solar Commenters agree with DOER that SMART has not adequately served low-income customers. Currently, despite SMART's existing higher low-income eligible rates, projects dedicated to serving low-income customers represent just a little over two percent of total reserved capacity. Section 11(b) of Chapter 75 of the Session Laws of 2016 explicitly directed the Department of Energy Resources to "promulgate rules and regulations implementing a solar incentive program which ... support(s) diverse installation types ... including ... low-income solar facilities...." While the SMART program has been successful in many aspects, there is broad stakeholder consensus that the current number of low-income projects under SMART (2.5%) is too low,¹⁸ and that low-income solar projects are lagging other development types.

This low level of participation is driven by several factors, including the SMART program's narrow definition for "low income customer," the need for contracts (which may be difficult for low-income customers to qualify and/or execute without leveraging their already scarce resources), and an inability to share the benefits of solar without a payment in return.

DOER's proposal to broaden the definition to expand access to low-income and environmental justice customers is a positive step. However, the expansion of eligibility to environmental justice customers does not address all of the additional impediments to bringing solar to these vulnerable customers.

The Solar Commenters therefore recommend DOER to first set an objective for reaching a specific number of low-income customers to be served. Then we encourage DOER to develop more specific, agency-led proposals for reaching these customers outside of the emergency regulation timeframe to allow for more deliberation and stakeholder review. The failure to reach low income customers to date is based on the complexity of the barriers, not based on the failure of the independent development community to provide solutions. Further, we recommend DOER, or MassCEC as its agent, take a more active role in implementing programs, such as

¹⁸ The Solar Commenters note that while 2.5% participation rate is too low, there has yet to stakeholder conversations regarding what the participation rates should be under SMART. Ideally, DOER's solar programs ultimately reach 100% of all customers. DOER should therefore establish (and track) metrics to understand how many customers are participating, including the total number of low- and moderate-income customers served. For example, public housing authorities are often subscribers to community solar projects, but this information has not been traditionally captured or reported by DOER.

acting as a facilitator or customer acquisition agent. The involvement of a government agency or MassCEC would go a long way toward establishing greater trust within the LMI customer base. Vote Solar is also separately advancing several ideas regarding better serving LMI customers.

IX. Consumer protection proposals

Consumer protection is a key element of any public program and is essential to establishing public confidence in SMART. The Solar Commenters strongly support DOER's plan to require firms to demonstrate that low-income customers are receiving direct savings on their bills. We further support DOER's recommendation to demonstrate through a no cost allocation of benefits or clear savings to low income resident off-takers. The Solar Commenters also support the use of random audits to ensure compliance with DOER requirements.

As DOER considers strengthening consumer protection provisions of SMART, we would encourage a reconsideration of the "three strikes" rule. Care should be taken to avoid inadvertently limiting the ability of an applicant to respond to "strikes," and consequently disbaring the applicant from proceeding with queued projects which may be unrelated to the concerns flagged by a "strike."

Furthermore, rather than cementing new consumer protection rules in the Emergency Regulations, the Solar Commenters recommend that DOER commence a separate stakeholder process to consider and develop the many details that make up good consumer protection rules. Should DOER move forward with new consumer protection requirements in the Emergency Regulations, the Solar Commenters recommend that regulators build in significant lead time before any new requirements go into effect to allow companies enough time to prepare for their implementation.

X. Revise the energy storage requirement for mid-to-large projects to provide more flexibility

The solar industry appreciates DOER's interest in ensuring large solar projects are paired with storage. In large part, the industry is heading in this direction. Most large solar projects are responding to market signals and seeking to add storage to take advantage of possible additional revenue streams and provide more value for their customers.

However, we recommend that DOER incentive and encourage, but not require all projects greater than 500 kW to be paired with storage. There are legitimate technical and financial reasons why a customer may choose not to co-locate an energy storage facility with a large solar project. For instance, is not how this will work with landowners, towns and building owners (e.g., fire safety and zoning rules). There is a concern, for example, for rooftop projects of over 500kW. In these cases, it is highly likely that the storage would be in or near the building and not necessarily on the roof. This creates permitting challenges in some jurisdictions and would require that space be available and that the building owner be able to lease that space for the project. Furthermore, pairing storage and solar for most smaller projects (i.e. less than 1 - 2 MW in size) does not yet make financial sense due to the high cost of smaller battery systems. Further, projects facing space constraints, particularly on contaminated parcels (landfills and brownfields) may not be able to site storage due to weight limitations atop of or adjacent to the contaminated site.

Instead, the Solar Commenters recommend eliminating the requirement to pair storage with solar to participate in SMART. In the alternative, should DOER keep the requirement, we recommend creating a good cause exemption in the event the developer can show the specific circumstances that make the requirement burdensome.

XI. Conclusion

The Solar Commenters appreciate the DOER's commitment to our industry and our customers – your residents and businesses. We encourage DOER to consider these suggestions intended to help support all solar industry market segments, improve the current SMART program, and prevent solar industry layoffs. Our organizations remain committed to helping Massachusetts achieve its clean energy objectives. Please feel free to reach out to David Gahl, dgahl@seia.org, on behalf of the Solar Commenters, with follow up questions or for additional information.

Respectfully submitted on behalf of the Solar Commenters by

/s/

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