



February 2, 2024

Samantha Meserve
Director, Renewable and Alternative Energy Division
Department of Energy Resources

Dear Director Meserve,

Thank you for the opportunity to submit comments to inform DOER's review of the SMART program. I have kept our comments brief as I know you will be receiving a large volume of submissions, but please don't hesitate to reach out if you would like additional information on anything I address (or do not address) below.

New Leaf Energy is a leading developer of distributed and utility-scale solar, onshore wind, and energy storage working to accelerate the transition to a world powered by renewable energy. We are headquartered in Lowell, MA and recently opened a new office in Boston. Established as a standalone business in 2022, the company was formed out of Borrego's market-leading solar and energy storage development business. While we currently have an active development pipeline across the country, Massachusetts has been a core pillar of our business since the passage of the Green Communities Act in 2008.

SMART Stakeholder Questions 12/21/23

1. The SMART program currently provides added incentives for certain project types, including building mounted, canopy mounted, landfill, brownfield, agricultural, floating, community solar, and projects serving low income or public entities, projects with energy storage, and axis tracking. DOER seeks additional feedback on changes or improvements that will advance achievement of the Commonwealth's 2050 GWSA mandates while balancing land use, equity, and economic considerations.

We support DOER's current effort to conduct an analysis of the costs of different types of solar. All adders should be updated based on that analysis, with particular attention to categories like brownfields and parking canopies that have seen relatively little adoption. For example, New Leaf explored a potential rooftop project in 2023 that was a new building with a 400,000sq ft roof. Even with such unique economies of scale for a rooftop project, it was not economically viable and we did not pursue the project.

In addition, the requirements for dual use agrivoltaics are extremely difficult to comply with. The ongoing reporting and yield requirements are very difficult for farmers to manage, especially as the climate changes and extremes of drought and flood become commonplace. In practice, farmers are unable to take on the burden of ongoing compliance, and we expect third-party contract farming to become more prevalent, where people/companies who specialize in dual use compliance are hired by the primary farmer/landowner to farm the parcels with agrivoltaics. This represents a barrier to participation and an additional cost; DOER should consider simplifying the compliance requirements and incorporating more flexibility for farmers.

Finally, other states including Maine are exploring programs to encourage solar development on agricultural lands where PFAS contamination affects the viability of crop production. Solar development can be an ideal way to provide financial support to farmers and protect the land from more permanent forms of development while strategies for decontamination of large areas of land are developed. If decontamination tools are available at the end of the life of a solar project the land can be returned to agricultural production. This potential win-win strategy falls through the cracks of current policies, however, as PFAS contamination is not covered under existing brownfields programs, nor can these lands qualify for agrivoltaic incentives.

2. The current SMART program structure includes a declining block model. Is a structure with fewer blocks and a greater decline between blocks preferable to a greater number of blocks with a smaller decline between blocks? Are there any other modifications to the declining block model structure that could more effectively support solar development?

If a declining block program is maintained, smaller blocks with smaller price drops between them are preferable. Developers try to predict which block a given project will end up in in order to model the project economics at every stage of project development. Larger price declines between blocks are much more disruptive when our predictions about block position are inaccurate. In addition to the pace of decline, the absolute level of decline also needs review. The rates in the later blocks are insufficient to enable project viability without stacking multiple adders.

3. Are any eligibility criteria in the SMART program a barrier to participation? What are they, and how would you address these barriers? How would you streamline these eligibility criteria?

Land use eligibility criteria are the biggest barrier to participation, as the Priority Habitat/Core Habitat/Critical Natural Landscape restrictions collectively remove an enormous percentage of Massachusetts' land area from eligibility. The Technical Potential of Solar study took a more nuanced approach, and while that study is imperfect (for example, locations such as beaches and sports fields show up as highly suitable for solar development), there are many sites that receive high grades for suitability yet are not currently eligible for SMART. In addition, the

exclusion of municipal light plants should be re-evaluated and they should be given the option to participate.

4. Is the current SMART reservation period (excluding any blanket extensions) adequate given current development and construction timelines? If possible, please provide a representative project timeline inclusive of key project milestones, such as permitting, procurement, and interconnection, to help inform DOER's understanding of the development process and current project timelines

We greatly appreciate the recent guideline update that granted additional time under a number of different circumstances. This is generally sufficient, with one important exception. Most ground-mounted projects going forward will be contingent upon utility upgrades approved in CIPs or ESMPs that have multi-year construction timelines. The guideline currently allows projects subject to CIPs to receive a twelve month extension, and potentially further extensions after paying for the Extended Reservation Period for a Fee. Instead of this two-step process and assessing a financial penalty to projects that are delayed due to utility upgrades approved as part of a long-term distribution system plan, we recommend that all projects be allowed to request additional time at their initial application by submitting documentation from the utility of the expected available PTO.

5. Are there any emerging technologies or project types that are not currently eligible for SMART that DOER should consider making eligible for the program? Please describe potential project applications, any suggestions for eligibility requirements, and what level of incentives if any would be needed spur project development of the project type.

New Leaf is exploring vertical solar for use in specific applications where there are extremely strict stormwater regulations. This type of installation can also have potential applicability in situations such as dual-use or the built environment where space is at a premium. In addition, orienting panels in this manner can have grid benefits as the daily yield profile differs from standard solar installations
(<https://www.pv-magazine-australia.com/2024/01/16/solar-fence-stands-out-in-gridcog-simulation/>).

8. Are there solar canopy project types that currently fall outside the SMART program's definition of Solar Canopy that you believe should be eligible for the Canopy adder? Please provide example project types and describe their benefits.

Parking canopies should be allowed even if the parking area is unpaved. For example, fairgrounds and similar venues often have large parking areas that are used seasonally and/or infrequently and therefore are unpaved. These areas are highly suitable for solar and such development would cause no new ecosystem impacts, but requiring that the parking area be

paved in order to qualify for the adder would increase the cost and threaten the project's economic viability, and would also introduce new and unnecessary land use impacts.

In addition, the canopy adder currently requires that 100% of the canopy be situated over the qualifying use. This is appropriate for parking canopies, but it is not appropriate for canopies over other uses such as irrigation canals. Canal canopies must be installed with the racking on the banks outside of the area which is flooded, which means that a small percentage of the panels will be above dry land. Rather than set a fixed percentage for canal canopies, which may differ in the slopes of their banks and thus the optimal location for racking, we recommend that projects be required to submit drawings demonstrating that they have maximized the coverage of the canal.

11. How could the program be designed to insulate projects and participants from unforeseen market circumstances that materially impact the value of the SMART program incentive? For example, global events impact supply chain and energy costs.

Periodic review of incentive levels, rather than a fixed declining block program for a set amount of time or capacity, would enable DOER to respond to such conditions.

13. Are there any Commonwealth policies (e.g., renewable energy goals, land use priorities, housing policy) that you believe the SMART program inadvertently conflicts with? Please describe any potential modifications to SMART that would alleviate these conflicts.

The 2050 Decarbonization Roadmap estimated that approximately 60,000 acres of additional ground mounted solar would be necessary to reach net zero by 2050. Both the feasibility and the pace of achieving this level of solar deployment are threatened by the restrictive nature of the SMART land use regulations, combined with other considerations such as Natural Heritage Endangered Species Protection. It is important to strike a balance between land and habitat conservation and deployment of renewable energy; in seeking that balance we should consider more carefully the impact of solar development on natural and working lands, taking into consideration that solar development is much lower-impact than other forms of development. For example, the Eastern Box Turtle is one species that we frequently encounter. Unlike development of housing or commercial land uses, a solar development with the proper fencing and plantings can remain a hospitable habitat for Eastern Box Turtles. Rather than prohibiting solar development in broad swaths of the commonwealth that meet certain GIS criteria, a more tailored approach to evaluating the pros and cons of individual sites, combined with reasonable mitigation measures, can result in multiple benefits.

14. Is there any additional feedback you wish to provide to DOER?

DOER's concurrent reviews of both the SMART and Clean Peak programs present an opportunity to reconsider how SMART projects with colocated storage are compensated, and

how available compensation structures provide signals to operate. Allowing SMART projects to generate Clean Peak credits may be needlessly complicated; certainly this is true for behind the meter systems and any other less-sophisticated project owners. Instead of layering a valuable SMART adder with weak operational requirements (only 52 cycles per year), along with a less valuable Clean Peak revenue stream (due to the fractional multiplier) with strong operational requirements, it may be more effective to remove SMART projects from Clean Peak eligibility and instead reconfigure the SMART storage incentives to better align compensation and optimal operation.

Finally, the future of the commonwealth's interconnection cost allocation framework is currently uncertain. If a long-term cost allocation framework is established that is based on regionally-specific interconnection fees (along the model of the current CIPs), it may be useful for DOER to consider these fees and set regionally-specific compensation rates that take into account differing project costs by region. However, it is our hope that a more uniform cost allocation system will be established and this will be unnecessary.

Thank you for the opportunity to provide comments to inform your review of the SMART program, which has been enormously successful to date but which could benefit from certain updates. We look forward to continued dialogue as DOER advances its review. Please contact me at any time if New Leaf can be of any assistance in these efforts.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Jessica Robertson', is positioned above the printed name.

Jessica Robertson

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