Response to SMART Stakeholder Questions

Q1. 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.

A. What project type incentive changes could improve program outcomes?

B. Should other project types also be prioritized?

The incentive rates for certain project types (building mounted, canopy mounted, landfill, brownfield) were based on leveling the playing field for these types of projects (e.g., accounting for extra steel needed for parking lot canopies, accounting for additional permitting/development costs associated with brownfields) rather than providing an additional incentive to show preference for them over conventional ground-mounted projects. The incentive rates for these types of projects need to be revisited and should be structured to promote these types of projects, which are greatly preferred by Massachusetts residents, rather than simply leveling the playing field with conventional, ground-mounted projects.

The pollinator adder for projects developed with pollinator-friendly vegetation was struck down by DPU but reinstated by the state legislature in 2022. However, this adder has still not yet been re-implemented by DOER. The lack of this adder has led many certified projects to drop out of the pollinator-friendly program and stopped new facilities from developing in a pollinator-friendly manner. This adder should be reinstated ASAP. It is a small incentive that does not greatly increase the cost of electricity but has the potential to provide significant ecological benefits. As currently structured, it is essentially revenue-neutral for developers – the costs of pollinator-friendly development are largely offset by the adder. However, DOER might consider slightly increasing the adder to provide a small amount of revenue and increase developer participation.

There are currently many municipalities interested in developing municipal solar projects, but SMART incentives are currently low and, with high interest rates, these projects are not always feasible for low-income or otherwise under-resourced communities (including small, rural towns). This problem could be addressed through an increase in the public adder for projects serving municipal load or developed by municipalities to serve municipal electricity load or town residents. Alternatively, zero or low-interest loans made available to communities could make these projects feasible.

DOER should also do the math to assess low-income solar incentives versus monthly amounts R-2 customers are paying for electricity. In many cases, low-income household solar projects don't make financial sense in the short run, because current annual electricity bills are lower than loan payments. Either a low-income and moderate-income solar loan program needs to be made available again, or incentives need to be re-structured so that solar makes financial sense for low-income customers and does not result in a higher monthly bill than a traditional electricity bill. Even if the long-term return on investment is good, this doesn't help low-income individuals in the early years of a solar loan.

See also response #2 below.

Q2. 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?

The goals of the Commonwealth are to steadily increase renewable energy capacity to combat climate change, and the SMART program should be structured to meet these goals. A block system is not structured to meet these goals. Rather, the Commonwealth should set a series of annual goals for new solar capacity to meet 2050 and interim targets. It should then accept sufficient projects into the SMART program to meet such goals. All "preferred" projects, such as those sited on rooftops, parking lots, brownfields, landfills, and other disturbed sites, as well as small community, business, or municipal projects, should be automatically accepted into the program. If these projects (as is likely to be the case, especially in early years) are not sufficient to meet annual capacity goals, large, ground-mounted projects should be accepted into the program annually, sufficient to meet capacity needs. These projects should be ranked based on such factors as location (lands of low ecological and agricultural value), community benefits provided, on-site mitigation efforts, business structure (e.g., cooperative, MA-based business, minority-owned business) and power purchase cost (rather than offered a fixed incentive). A group of stakeholders and experts from environmental, social justice, agricultural, solar industry, state agency, and other fields should be convened to develop an appropriate ranking system. Program structure should be revisited every two years to ensure the program is meeting goals for solar capacity development and land conservation, while ensuring reasonable electricity rates for Massachusetts ratepayers.

Q5. 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.

A note of caution on emerging technologies: DOER should be cautious about promoting emerging technologies through a SMART adder prior to obtaining clear evidence that a new technology is an important innovation that should be promoted. SMART incentives are not a good way to pilot-test new technologies, since they can drive development in the direction of new versus established technologies, if incentives for emerging technologies are high. This leads to market pressure to continue with the incentive, even if the technology turns out to not be an improvement over existing technologies or evidence is lacking – a potential case of the tail wagging the dog. Instead, emerging technologies should be explored through grant programs or technical assistance to allow for the pilot-testing of new technologies under controlled, scientifically valid conditions, where it can be determined whether they are ready for primetime. Electricity ratepayers should not be the funding source for unproven technologies.

Q12. What additional consumer protection measures or modifications to existing measures should the SMART program incorporate to ensure such protections are achieving their objectives, especially as they pertain to low-income customers?

Currently, it is possible for much or all of the incentive for public or community-shared solar to go to the developer rather than a municipality or low-income customer. Municipalities and individuals are often not sufficiently aware of state solar incentives to understand how much of solar incentives are being pocketed by a developer. For example, in my community, our Select Board was approached about signing on to a 20-year contract to give a low-income customers within our municipal aggregation a 1-cent per kWh discount on their electricity rate. This same offer was given to many municipalities throughout the state, and on the face of it, it seemed like a no-brainer – why not give a discount to low-income ratepayers that comes with no obvious cost? It turned out this offer was coming from community-shared, low-income solar companies, which were earning 6 cents per kWh from SMART for their efforts. These companies had to do very little work to identify these customers, since they were already part of our municipal aggregation - certainly nothing that would justify pocketing 83% of the incentive. As a Massachusetts electricity ratepayer, I am more than happy to pay an additional 6 cents per kWh if it is going to low-income customers, but I am outraged that 5 of those cents would be going to a large-scale solar developer offering a tiny discount to low-income customers. There are far more efficient ways to deliver these benefits.

At minimum, DOER should evaluate the costs to developers of low-income, community-shared solar and municipal solar, and set requirements that at minimum a certain percentage (e.g., 75% or more) of the incentive go to the intended recipients – low-income and municipal customers. A better approach would be to require solar companies to provide truly community-shared business models, in which municipal and low-income customers can own a share in an array and enjoy all the benefits of ownership, rather than a tiny discount on their electricity bill.

Q13. 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.

As noted above (Q2), the SMART program could be better structured to meet state renewable energy goals, with a runway that extends to 2050.

In terms of land use, there are a number of steps DOER should take to improve SMART's compatibility with state goals for conservation of natural and agricultural lands. Building on DOER's technical potential of solar study, Mass Audubon's *Growing Solar, Protecting Nature*, and The Nature Conservancy's national renewable energy siting efforts, DOER should work with a group of stakeholders (environmental, agricultural, social justice, solar industry, utility, etc.) to rank undeveloped lands across the state in terms of their value for conservation and agriculture. Certain lands (perhaps BioMap, for example, as in the current program) should be ineligible for solar incentives - and ideally, be ineligible for large-scale solar development more broadly - as needed to meet state goals for wildlife conservation and farmland protection. Other lands should be ranked as more or less desirable for development, based on their ecological and agricultural value. These rankings should then translate into greater, lesser, or zero incentive rates for large, ground-mounted projects. Alternatively, if some version of the structure recommended in Q2 is adopted, these rankings could be used to prioritize projects for acceptance into the SMART program. We likely need ground-mounted solar to meet our renewable energy goals in a timely manner, but we need not support development willy-nilly, irregardless of conservation or agricultural value. [It is important to note here that as solar costs fall, SMART incentives may

not be sufficient to drive siting of solar. Class I REC eligibility and other mechanisms (such as town bylaws and state zoning law) also need to be considered.]

Once a solar site is chosen, SMART is currently agnostic regarding HOW a project is developed and whether any on-site mitigation is implemented. In addition to a pollinator-friendly option, DOER should work with a group of stakeholders and experts to design financially feasible minimum environmental standards required for all large, ground-mounted projects over a certain size (e.g., 500 kW). This might include such things as a base fence gap of 8" for wildlife passage through the array, stormwater management standards, establishment of native vegetation in all or a portion of the array, invasive species control, and minimum buffer distances from wetlands (e.g., at least 50 feet). Solar PV facilities will ultimately comprise a significant land use throughout the state, and DOER should work with stakeholders to design standards that make them as compatible as possible with neighboring land uses and other state goals.

Thank you for the opportunity to provide feedback!

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