

TO: Kathleen Theoharides, Secretary
Executive Office of Energy and Environmental Affairs

FROM: Eleanor Tillinghast, President
Green Berkshires, Inc.

DATE: September 27, 2019

RE: SMART 400 MW Review and Straw Proposal

Green Berkshires, Inc. appreciates the opportunity to submit comments on the SMART 400 MW Review and Straw Proposal issued by the Massachusetts Department of Energy Resources (DOER). Specifically, we are providing comments on three aspects of the scope outlined in the DOER presentation titled SMART Program 400 MW Review, dated September 5, 2019: review of overall cost impacts to ratepayers; addressing program oversubscription, and; land-use impacts.

Overall Cost Impacts to Ratepayers

Although it is stated that one purpose of this review is to look at total program costs, the SMART 400 MW Review offers nothing to help the public understand the specific and total costs of the SMART Program. Considering the extent to which Commonwealth residents as ratepayers and taxpayers are subsidizing solar development, this is a significant omission that should be rectified.

Program Oversubscription

According to the program expansion proposal, the additional capacity for Eversource Capacity Blocks will be available to both Eversource East and Eversource West under one Capacity Block. We are concerned that the effect of the proposed change will be to drive a disproportionate amount of development into the Eversource West territory, which is already overloaded with large commercial solar facilities.

At present, only 3 of 8 SMART Capacity Blocks have been applied for in the Eversource East territory, whereas the Eversource West territory is so full there is now a waiting list. In Eversource East, only 25.51% of the SMART capacity has been used, whereas virtually all of the Eversource West capacity has been used.¹ Although the Total Capacity Qualified or Applied For (MW) in Eversource East is more than in Eversource West (149.4 MW vs 99.2 MW, respectively), Eversource East covers 107 municipalities compared to the 69 in Eversource West,² and, more importantly, holds a far greater percentage of the state population than is found in Eversource West. These facts are convincing evidence that developers prefer to build facilities in the Eversource West territory rather than in the Eversource East territory.

Under your proposed revision, the region of Eversource West could potentially end up with two-thirds of all development under the current and proposed SMART program. Using figures from the chart on page 7 of SMART 400 MW Review, this is calculated as follows:

¹ Smart Program 400 MW Review, September 5, 2019, p. 33.

² <https://www.eversource.com/content/wma/about/about-us/about-us/communities-we-serve>

Three blocks of Eversource East already subscribed total 149.4 MW;
Assuming all future combined block development will be in Eversource West (107.249×4 blocks (Blocks 9 – 12) = 428.996, and;
Adding the total of the fully-subscribed Eversource West Blocks 1 – 8 (15.735×8) = 125.88;
Equals 554.876 potential total of Eversource West;
 $(274.542 + 428.996 + 125.88) = 829.418$;
 $554.876 / 829.418 = 66.90\%$ of all large-scale commercial development could occur in Eversource West.

This means that the region of least population may end up supporting 67% of all qualified solar development within the combined Eversource territory under the SMART program. In other words, while you may want to “alleviate market pressure in service territories with waiting lists,” the impact to the 69 communities of Eversource West – representing less than 20% of the Commonwealth’s 351 municipalities - could be extreme. Residents of those communities could be forgiven for concluding that you have subsumed their interests to those of solar developers.

Land-Use Impacts

You note that “[t]he majority of projects in Category 1 have avoided the Greenfield Subtractor by complying with local solar zoning, even though most of those projects are large ground mounted greenfields.” In fact, the state has created a Catch-22 for municipalities. Massachusetts General Law Chapter 40A, Section 3 states:

No zoning ordinance or by-law shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.

It would be very challenging for a municipality to adopt a solar bylaw that specifically prohibits development of solar facilities on forest, farmland, or open space. Consequently, at this point, the only protection of those places must be through the regulations of the SMART program.

Under current SMART regulations, “the acreage of land that a Solar Tariff Generation Unit occupies shall be determined by calculating the square footage occupied by the solar photovoltaic modules that are part of the Solar Tariff Generation Unit.” This number does not convey the true amount of forest or other land disturbed to construct and maintain a ground-mounted solar facility.

Using Google Earth, spreadsheets from DOER and the Independent System Operator of New England (ISO-NE), along with municipal records and news articles, our office did a detailed analysis of ground-mounted solar projects in Berkshire County of at least 0.9 MW in capacity. The county hosts 33 facilities of that scale. Of those, 17 sites involved clearing of forest, for a total of 192.17 acres. That total represents 54.76% of the 350.9 acres of fenced area.³

Of the 33 sites, only 10 fall into the general category of brownfield, capped landfill, city landfill, gravel pit, industrial park, and truckstop.⁴ This means that 23 sites had previously been forest, farmland, open space, or a golf course.

³ Some forest was cleared outside the fenced areas.

⁴ Two of the 10 sites had at least five acres of forest removed but, nonetheless, fall into the general category.

23 sites represent 69.70% of the total of 33 sites in Berkshire County. Comparing what could happen under your proposed plan, wherein 66.90% of all large-scale commercial solar development could occur within Eversource West, if the total allocated to Eversource West were to be distributed evenly throughout its territory, the effect of your proposal on Berkshire County would not be significantly better than what has happened already.

This increases the need to ensure that the subcontractors and adders you have proposed, as well as oversight measures, are sufficient protection of forest and farmland.

Our reading of 225 CMR 20.00 is that forests not protected under Article XCVII of the Commonwealth's Constitution or otherwise zoned for commercial or industrial use would be classified as Land Use Category 3.

The proposed Greenfield Subtractor for Category 3 is \$0.0050/kWh per acre impacted.⁵ Using as a guide your note that the new Pollinator Adder of \$0.0025/kWh provides approximately \$3,500/MW per year,⁶ this would mean a penalty of \$7,000/MW for each impacted acre. While that sounds meaningful, how would you determine and police the actual acreage of forest cleared for a project? Obviously, calculating the square footage occupied by the solar photovoltaic modules as the way to determine the Acreage of Land Occupied does not accurately convey the impacts to forest and farmland. In our analysis of the 17 projects in Berkshire County that involved the clearing of forest, in most instances we were unable to find a pre-construction claim of forest to be cleared. However, in all cases where pre-construction numbers were made public, when pre- and post-construction Google Earth photos were compared, the actual amount of cleared forest was more than claimed. Since acreage is an explicit component of the Greenfield Subtractor, we suggest that you come up with a standardized method of measuring actual cleared forest, and that the measurement method and tools be made available to the public so that people can do calculations without being forced to engage in the complicated research done by Green Berkshires.

It concerns us that exceptions to the Greenfield Subtractor can be made by DOER "for good cause," with no publicly-available criteria for how such a determination is made.

If the Public Off-taker Adder is being increased to encourage development on public land or the sale of electricity and associated attributes to municipalities, it should only be applicable only on previously-developed land, not on forests or open space.

The adder for dual-use agriculture is very generous. It will continue to shift development to farmland. At present, based on our observations, it appears that there is a loophole in the current application of the SMART regulation that enables a facility owner to bring in goats and sheep periodically to graze under the solar panels and still qualify for the adder. This loophole should be eliminated.

⁵ Smart Program 400 MW Review, September 5, 2019, p. 9.

⁶ Smart Program 400 MW Review, September 5, 2019, p. 28.