Testimony to the Department of Energy Resources (DOER) regarding Solar Massachusetts Renewable Target (SMART) Program regulations

Submitted by Michael DeChiara on September 23, 2019
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My name is Michael DeChiara. I am a resident of Shutesbury, MA. I am a constituent of Sen. Comerford, and Rep. Blais. I am currently a member of the Shutesbury Planning Board, am the past Chair of the Shutesbury Select Board; I have served as a local elected official in Shutesbury for the past 14. I was also closely involved with a 6MW installation on my road under SREC II.

My comments are based on attendance at the SMART presentation held at UMass Amherst on Sept. 5, 2019, review of the SMART regulations and associated guidance documents, as well as my personal experiences with the Shutesbury solar installation and my roles as an elected municipal official (although these are my own personal opinions and do not represent those of any board or committee).

I would like to preface my comments by noting that I have been an active supporter of solar power for 40 years and have worked professionally in the field of environmental activism. That said I have concerns about how commercial solar is being implemented in Massachusetts – previously through the SREC program and now the SMART program. My specific concerns focus on the effects of policy on land use, loopholes regarding low-income priorities, and the lack of adequate support for municipalities and municipal-owned solar projects.

Land Use

Land Use Comment 1: Overdevelopment in Western Massachusetts

In the Sept. 5 presentation, DOER indicated that reservations for solar development under SMART are progressing unevenly across different service territories and in particular larger projects, primarily proposed for Western Massachusetts, are outpacing other projects. This is not surprising to anyone living in Western Massachusetts.

The financial incentives for solar in Massachusetts bring investors from all over - nationally and internationally. Usually, these investors care about money, not necessarily the environment. This is an issue for Western Massachusetts because the best place in the state to find large, develop-able tracts of land is in this region. Since most of the municipalities are small, volunteer-led and financial strapped towns, there is little expertise or ability to counter corporate development plans. Larger projects provide greater opportunities for large profit.

As a result of these large developments, throughout the Northeast, from what I've been told, contiguous forests are being cut up by solar projects. As a whole this has a detrimental effect on forests, wildlife, ecosystems and our best natural carbon sequestration mechanisms.

I would suggest that DOER needs to further strengthen policies to limit or even prohibit development of forested and agricultural sites, including the removal of loopholes associated with positive and negative rating factors (Adders and Subtractors). While DOER has clearly stated preferences for protecting undeveloped forestland and agriculture, the rating system does not adequately provide these protections. Also, having listened to the developer comments at the presentation, there is risk that DOER continues to embrace an investment model that will yield to developer demands for more opportunity and making it worth their while.

DOER, to its credit, released its Model Zoning for the Regulation of Solar Energy Systems in December 2014 which states the following: "*DOER strongly discourages locations that result in significant loss of land and natural resources, including farm and forest land, and encourages rooftop siting, as well as locations in industrial and commercial districts, or on vacant, disturbed land. Significant tree cutting is problematic because of the important water management, cooling, and climate benefits trees provide."* The problem is that past SREC and current SMART regulations do not adequate provide the protections that DOER says are needed.

Specifically, I would recommend the following changes:

1. Category 2 projects are defined as projects on land "*not been previously developed*". However an important issue in New England is that most forested land in the region was deforested in the 19th and 20th centuries. I would suggest instead that DOER adopt an updated definition - "*currently forested land*". The current forested status is more important and worthy of protection than allowing for debate about a land's history – there is very little virgin forest in Massachusetts.
2. I would ask DOER that before allowing expanded development in Western Massachusetts through revised regulations, that a full assessment of contiguous forestland be done with an eye towards wildlife corridors and maintaining a healthy ecosystem.

Land Use Comment 2: Category Status is Based on Mistaken Zoning Assumptions

On Slide 8 DOER states that "*the 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".*

This statement is of great concern and demonstrates a significant loophole created and seemingly supported by DOER through SMART policy. As DOER is well aware and Commissioner Judson acknowledged at the Sept. 5 presentation, most municipalities in the Commonwealth do not have solar bylaws. Furthermore, as DOER has stated in its 2014 Solar Guidance document, municipalities are severely limited in what they can regulate regarding solar due to MGL Chapter 40A Section 3. The DOER guidance states *"This section of M.G.L. addresses "[s]ubjects which zoning may not regulate…" As this language suggests, this section of the statute describes several uses that cannot be regulated in the same manner as typical residential, commercial, or other uses. For example, limits on the ability to regulate religious uses, agricultural uses, and day-care operations are included in this section of the statute. Paragraph 9 of this section addresses solar energy systems as follows: 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."*

In my local experience, since Shutesbury did not have a solar bylaw at the time of the special permit request, under SREC II, the town felt that it could not regulate or not approve the proposal even though it was a 6MW commercial solar development created by clear cutting nearly 30 acres of private forested land adjacent to residences. This kind of project would not be supported by DOER guidance but was allowed under SREC II despite continued opposition by town residents. I believe that SMART regulations need to be made stronger and for force consistency with DOER's statements that forested land be preserved.

What I interpret the current and proposed SMART regulations to mean is that large scale solar developments will be able to avoid being penalized (greenfield subtractor) if the municipality they are siting in has no solar bylaws or weak solar bylaws. I would suggest this is likely the case for most municipalities; it is a nice way to say developers are complying. So the statement on slide 8 (see below) is quite troubling.

Land Use Proposal

Current Status

The SMART program was designed to create a diversity of project types and to steer development away from large scale ground mounted projects in undeveloped spaces

	Category 3	Category 2	Category 1							
Project Type	Ground Mounted and not C&I Zoned	Ground Mounted, C&I Zoned, and NOT Previously Developed	Small Ground Mounted (<=500 kW)	Previously Developed	Solar Zoned	Rooftop	Brownfield	Landfill	Parking Lot Canopy	Dual Use Ag
Compensation Rate ($/kWh)	Base Rate minus $0.001/acre	Base Rate minus $0.0005/acre	Base Rate			Base Rate plus $0.02	Base Rate plus $0.03	Base Rate plus $0.04	Base Rate plus $0.06	Base Rate plus $0.06
Qualified Cat 1 Large Projects (MW)	N/A	N/A	5	60	356	89	10	29	36	3
Qualified Large Projects (MW)	192 (24%)	47 (6%)	421 (51%)			166 (20%)				

The 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. A significant percentage of these projects are seeking a Community Shared Solar Adder.

If the proposed changes on Slide 9, "*Move solar specific local zoning from Category 1 Land Use eligibility to Category 2 for all new projects*", achieves what DOER suggests it will: "*ensures that projects >500 kW sited on land that has not been previously developed are assessed the Greenfield Subtractor*", **I would support it.**

Land Use Comment 3: Clarification and "Tightening" of Category 2 & 3 Definitions

In the SMART regulations, there are two categories that seem reasonable in concept but create a loophole in practice. These are Category 2 and Category 3; these should be made clearer and be narrowly defined.

- Category 2 land use applies to projects: 500kW AC < STGU size ≤ 5000kW AC; and sited on land that has not been previously developed; and is zoned for commercial and industrial use.
- Category 3 land use applies to projects: 500kWAC < STGU size ≤ 5000kW AC and do not meet the criteria for Category 1 or 2

In the case of Shutesbury, the town does not have a designated industrial or commercial district. This is likely true of many of the small, rural towns in Western Massachusetts where large scale installations would be planned. In the Shutesbury situation, the project was deemed to be a light industrial use even though it was sited in the Forest Conservation district. In my mind, this went against both local zoning and DOER intent.

This is relevant since while Category 2 says that the land must be zoned for commercial and industrial, I believe this is too vague. The definition should be tightened to add that if no commercial or industrial zoning exists, regardless of the proposed use, that the project is defined as Category 3. This will avoid the developer or local authorities re-defining a project by use rather than zoning.

Land Use Comment 4: Protection of Sacred Native Lands/Spaces

In the SMART regulations, Solar Photovoltaic Generation Units that meet one of three criteria are not eligible to qualify as Solar Tariff Generation Units. I would suggest adding a fourth criterion - to protect Native Sacred Land and Sacred Spaces.

In the Shutesbury solar installation, there were legitimate claims that the land being developed was on the site of native sacred sites; these claims were made by local and regional native representatives with experience in sacred land identification. Yet given the weakness of Massachusetts planning laws, there was nothing to be done when the Planning Board chose not to require adequate native inspection prior to approval and the landowner forbade inspection of the land by any native person even if they representative a federally and recognized tribe. Unlike federal projects which require Native-led inspections to assess the site prior to permitting (see US Dept. of Interior regulations) Massachusetts requires nothing prior to permitting or even construction. SMART regulations are silent on this matter, as were SREC regulations. I would recommend that SMART regulations be expanded to prohibit development on native-identified sacred land and to require that prior to local or state approval of large scale solar installations that native representatives be allowed to make a formal assessment and establish official status, following the US Dept of Interior process.

Low Income Options

Low Income Comment 1: Lack of Verification and Transparency

While supporting Low Income Communities is admirable and appropriate, the low-income option seems to open the door to subverting the overall DOER process for rating and therefore incentivizing or penalizing solar installation projects. Some projects get "Adder Value" for low-income rather than raising red flags for land use not prioritized by DOER. Given this, I believe the process regarding Low Income Community Support needs to be seriously re-designed and tightened, if not have its implementation reconsidered. Slides 19 and 20 address low-income options.

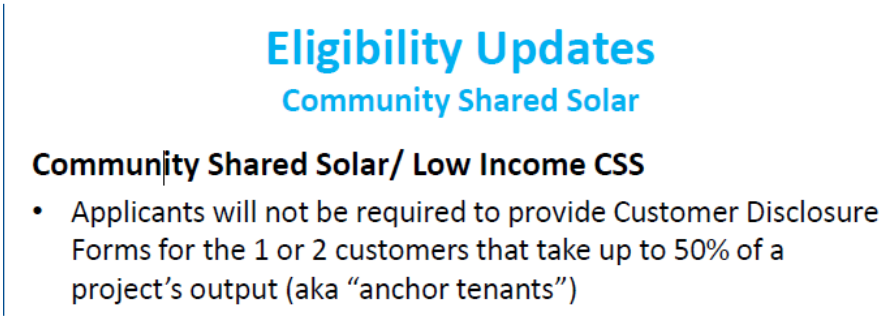
It was acknowledged at the Sept. 5 presentation that developers do not have access to lists of low income users. Therefore, simply put, it is hard to understand how a developer can claim credit for supporting low income communities and how any local approving authority (Planning Board or ZBA) would be able to validate such claims. And if DOER allows Adder Points, any process needs to be more transparent to the local permit approving authorities prior to permit approval, and the necessary documentation from the developer should be required to be submitted as part of the permitting process. This transparency was not the case for Shutesbury under SREC II, where the developer claimed to be providing power to a low income housing authority in eastern Massachusetts, thereby getting points despite being on previously underdeveloped land. The housing authority, to my knowledge, was never identified in public meetings or documents; I would assume the Shutesbury Planning Board was never told. Furthermore, since power goes into the grid, how this would be tracked and credited for a housing authority was never specified by SREC regulation.

Additionally, the current language regarding documentation for low-income services is vague. For example, section 20.06 (g) of the SMART regulations states that "*In order to qualify as a Low Income Property Generation Unit, a Solar Tariff Generation Unit must submit satisfactory documentation to the Department as detailed in the Department's Guideline Regarding Low Income Generation Units*." Upon my review, these Guidelines do not indicate what adequate proof consists of. Equally important there is no requirement to share these prior to permitting with the local approving authority nor are they public documents. Additionally, according to DOER on slide 19 some of the current challenges regarding low-income verification are "c*hallenges in determining who is on an R 2 rate,* and *Marketing to possible eligible customers".* Why DOER would give Adder points to projects without a clear, public and airtight process for a developer to comply with the intent is puzzling and simply allows poorly sited projects to get extra points.

This critique is relevant for the following:

- Low Income Community Shared Solar Tariff Generation Unit. A Community Shared Solar Tariff Generation Unit with at least 50% of its energy output allocated to Low Income Customers in the form of electricity or bill credits.
- Low Income Property Solar Tariff Generation Unit. A Solar Tariff Generation Unit with a rated capacity greater than 25 kW that provides all of its generation output in the form of electricity or net metering credits to low or moderate income housing, as defined under M.G.L. c. 40B

Despite these concerns, the recommendation on Slide 30 (below) seems to make accountability less for the developer regarding low-income developments. I would not support this eligibility update if it weakens transparency and accountability for developers.



In summary, I believe that often the low-income Adder allows less desirable projects including installations in previously undeveloped areas or agricultural land to become better rated by counter-balancing the "greenfield subtractor" with a low-income Adder. I would suggest that any subtractors due to poor land use siting should not be allowed to benefit from Low-Income Adder.

Lack of Support for Municipalities and Municipal Solar

Municipal Support Comment 1: Inadequate financial benefit for host communities
Neither in SREC II nor SMART regulations are there provisions that acknowledge support for the host municipality. All Massachusetts communities, but especially small, rural communities have been hard hit by 10-15 years of funding cuts. So while the residents might not be low-income by the Commonwealth's definition, the financial burden on residents resulting by increased property taxes is real and all Western Massachusetts residents/communities could use financial relief. Despite hosting a large solar installation, the regulations do not require nor incentivize financial support for a host municipality except for a negotiated Payment In Lieu of Taxes (PILOT). Having been on the Select Board when Shutesbury negotiated its PILOT, it was clear that these sums fall far short, especially since they are not allowed to be designed with the profit the solar development will generate. PILOTs are based on the value of the property not the income generation of the development. Just as SREC II and SMART regulations carved out support for low-income housing, I would recommend that SMART regulations require notable direct support for municipal hosts communities, preferably allowing payments in relation to the levels of estimated profits these companies advertise to their investors. This would make a difference throughout the Commonwealth and could even enable municipalities to invest in conservation methods using these funds. I would suggest SMART create either a requirement or a newer Adder Category for development projects that directly benefit the host community

Municipal Support Comment 2: Include the concept of proximity.
I would suggest that if Adders are allowed for low-income housing for example or other public benefits, that these be limited to those recipients in close proximity to the solar installation. Currently, SMART allows for any low-income municipality or housing authority to be identified to gain an Adder. A project in Shutesbury

could benefit a housing authority in Everett. Primarily this demonstrates that energy fed to the grid is really just a numbers game on paper; somewhat meaningless if not verifiable. But even if DOER were to maintain this as a priority, I would suggest that any targeted low-income municipality or housing authority be within a 25 mile radius of the project. This shift would recognize that the communities "in proximity' to the project should experience benefit thereby benefiting the region. It will reduce the sense that Western Mass. resources are being raided any some vague benefit could be seen elsewhere in the Commonwealth.

Municipal Support Comment 3: Need to grow municipally-owned solar

It seems that SMART, like SREC, has a focus on private solar development without adequately designing a process whereby municipalities can develop their own solar. In the case of Shutesbury, municipally-owned solar has been considered for several years on public land but it is impossible to raise the funds to develop the project. Any developer who would be interested in a solar installation would have greater financial benefit developing privately and selling power to the grid. While Community Supported Solar is a component of SMART, as I understand it, these installations remain privately owned even if they are built on public land or serve public buildings. With 351 municipalities in the Commonwealth, it seems that if DOER wants to expand solar adoption that providing a viable option for towns and cities to fund and own their own systems through a Municipal Lighting Plant (MLP) should be seriously explored in another iteration of SMART regulations. This model is currently underway in Western Mass. for broadband. In Shutesbury, after 15 years of being turned away by private telecommunications providers, the town is installing state-of-the-art fiber broadband that brings needed services and subscription income to the town. A similar model could be designed and supported by SMART for solar.

Thank you for your time and consideration.