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Delivered electronically to [DOER.SREC@state.ma.us](mailto:DOER.SREC@state.ma.us)  
Commissioner Judith Judson  
Massachusetts Department of Energy Resources  
100 Cambridge Street, Suite 1020  
Boston, MA 02114

RE: SMART solar incentive program

Dear Commissioner Judson,

Thank you for the opportunity to provide comments on the SMART solar incentive program ("SMART").

For about the last decade, I have worked as a solar project developer and have been responsible for the development and construction of over 70 photovoltaic projects in Massachusetts, totaling about 7 MW. I got my start in the field working on a small solar heated and wind powered school in 1976 and have been working in a variety of capacities ever since to try to make our energy systems more sustainable.

I want to start out stating my strong support for the positions outlined in the joint solar industry letter issued by SEBANE, MassSolar, NECEC, SEIA and other solar industry groups. I hope it is clear that the unanimity of the industry reflects some very significant concerns that, if not corrected, will place the viability of the Massachusetts solar industry at risk and certainly slow the growth and job creation we have seen in recent years. Of particular concern is the inadequacy of the proposed base compensation caps for the SMART program.

As a member of DOER's Land Use stakeholder group last Fall, I will focus my own comments on a few Land Use related issues in the recently released regulations. I will first note that many, if not all, of the issues that were issued in the regulations as "standards", were discussed as adjustable "guidelines" in our stakeholder discussions. It also seemed that details that were discussed as possible rules pertaining to agricultural projects only somehow evolved to become blanket standards for all ground mount systems. Such restrictions are much too broad to be good policy. In general, the land use related portion of the regulations need much clearer definitions, so that they are not misinterpreted.

It is important to put solar land use in context. A typical solar project has a twenty five year life expectancy. Most ground mounted systems are very easy to decommission for other uses including potential return to woodlands or agriculture. It's a whole lot easier decommissioning a solar project than demolishing a housing development or commercial buildings. And solar is a quiet, low impact use of land that has minimal impact on surrounding communities.

A few specific issues are of concern:

- 1) Prohibition on stripping soils: It is not clear if this is intended as a prohibition of the mining and removal of soils from the site, or whether it is a prohibition of even temporary stripping and stockpiling on site to enable necessary grading. A prohibition of mining from the site is perfectly reasonable. But temporary relocation and on-site stockpiling of topsoil for minimal necessary grading should be allowed as long as those top soils are replaced and no topsoil or other materials are removed from the site. Developers won't grade unnecessarily because the cost of such work is high. But sometimes some grading is required to make a site suitable for solar. In most cases, such grading would also make the site more suitable for future agricultural or other uses.
- 2) Prohibition on the use of concrete: This is a very inappropriate prohibition. Most ballasted systems are either precast or poured in place concrete ballast that sit on the surface of the soil. When it is time to decommission the system, they can be easily picked up with a lull without disturbing the soils below and loaded on flatbed trucks for removal from the site. Similarly, equipment pads for inverters, transformers and switch gear typically are floating slabs extending no more than a few inches below grade that can also be easily removed at decommissioning.

Without using ballasted mounting systems, capped brownfield and landfill areas would be off limits, as you can't penetrate the caps. Also in the case of sites with lots of ledge or boulders, that aren't really suited for agriculture or other uses, racking systems using concrete or concrete blocks for ballast are the most practical way to build. These uses certainly shouldn't be prohibited.

Even with piles or screw foundations, occasionally a foundation will hit a boulder or ledge. I have built three projects with hundreds of pile or screw foundations in each of them. In all three of them, we had one to three foundations that hit boulders that were too big to move and we ended up installing spread concrete foundations in those very few locations. Again, these are not deep and are easy to remove at decommissioning.

Requiring contracts with the third-party administrator to remove all concrete at decommissioning and perhaps requiring some form of financial surety to do so, would make a whole lot more sense than prohibiting concrete on solar projects.

- 3) Regarding the Special Provisions for Agricultural Solar Tariff Generation Units, I am concerned with the provision that "the maximum shading reduction from the panels on the area beneath shall not be more than 50% of baseline field conditions". If this means providing rows spaced at least as wide as the arrays, that is not a problem at all. But if it meant installing systems with

only one row of panels vs four or five rows high per array, then the racking costs and wiring costs would be increased several fold. Perhaps more importantly, it would involve so much racking that it would be impractical for a farmer to bring equipment in to farm the area, defeating the entire intent of the agricultural solar systems provisions. This rule should be clarified to state that no more than 50% of the solar are shall be covered in panels.

In general, more clear definitions will go a long way in improving these issues of concern.

Thank you for your consideration of these comments.

A handwritten signature in blue ink, appearing to read 'Fred Unger', is positioned above the name. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Fred Unger, President

cc:

Matthew Beaton, Secretary, Energy and Environmental Affairs  
Ned Bartlett, Undersecretary, Energy and Environmental Affairs  
Michael Judge, Director of Renewable and Alternative Energy, DOER  
Kaitlin Kelly, Renewable Energy Program Coordinator, DOER  
Gerald Palano, Energy Coordinator, MDAR