



## HEARTWOOD GROUP, INC.

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October 20, 2021

Department of Energy Resources  
100 Cambridge Street, Suite 1020  
Boston, MA 02114  
attention Gina Bellato  
Via e-mail

Re: SMART Agricultural and Land Use Guidelines

Dear Ms. Bellato,

I am writing regarding the SMART Agricultural and Land Use Guidelines. I represented the Solar Energy Business Association of New England several years ago in a land use stakeholder process that went on for a year or so in your offices. My concerns now remain the same and are even stronger than what I suggested to Gerry Palano at the time and have again recently.

The basic problem is the agricultural solar standards proposed is that they are neither economic or reasonable. They dictate a phenomenal waste of resources based on a very limited view of what agriculture can be. It is important to recognize what a very tiny fraction of Massachusetts land solar represents. It is also a very small percentage of the farm land that is in danger of being developed for permanent uses like housing due to the generally shaky economic realities of agriculture in New England these days.

The ugly structures way up in the air required by the agricultural adders, can create only about half as much energy on a given parcel as conventional ground mount solar. They waste large amounts of steel with their height. They make it much harder to visually buffer the projects from neighbors and roads, and thus are more likely to have NIMBY objections and angry neighbors. They limit the energy and revenue production from any parcel, effectively wasting not just land but development effort and costs as well. Their net cost essentially wipes out any benefit provided by the ag adders. In short, they make no sense whatsoever.

I recently sent a proposal to a land owner who is hoping to use a solar project to keep their land from development for house lots. The old farmer passed away and the land is being administered on behalf of his five children that are heirs to the place. Some heirs want to preserve the land for agriculture. Some want to sell for housing development. The one I am working with is intrigued by the idea of land banking the property with solar for 30 years in hopes that farming in Massachusetts might be more economically lucrative in the future after the solar is decommissioned.

In our proposal I included two conceptual layouts, one for ag solar and one for a traditional project and explained at high level the difference between the options this way:

*The SMART program effectively discourages conventional solar projects like the ones that I showed you being built on wooded or agricultural lands by reducing the compensation for those kinds of “greenfield” projects. These projects are still appropriate for raising sheep and or bees as we are doing at Kevin’s place.*

*The administrators of the SMART program want to encourage projects that you can in theory continue to farm almost anything under raised solar canopies. So they will increase the compensation a project receives on agricultural land if your project meets complicated guidelines including having the system a minimum of eight feet off the ground, don’t reduce sunlight hitting the ground anywhere on the entire site by more than 50%, annually certify the use of the land under the panels remains in active agriculture, and meets several other criteria.*

*The SMART Program also has numerous land use constraints. Depending on the type of system you build, certain land is prohibited from the program. Aside from conventional wetlands restrictions, your site contains “Critical Natural Habitat” which restricts us from building conventional solar in the parts of the parcel with that designation. But the raised agricultural arrays would be allowed in those area.*

*The bottom line is that if our development effort is successful, we would offer a lease payment of \$15,000 per year per MWac. For the 1.34 MWac agricultural solar project, that would be about \$20,000 per year. For the 2.13 MWac conventional solar project, that would be about \$32,000 per year.*

Here’s what I got back:

*The reality of what agriculture can be done on a property with solar is severely limited even with the raised panels. You can’t run machinery around the posts and there is a lack of workers to do hand labor. And in Massachusetts there is not much demand for land for cows or other livestock to graze.*

*We went over your proposal and my feeling is that it seems the state doesn’t want farmers using solar as a way to hold land any longer. Lease payments of \$32,000 a year probably won’t work because it has to be split five ways.*

This is a parcel on which without the greenfield subtractor and restriction on “Critical Natural Habitat” we could have offered a lease of about twice what we are able to and then actually preserved the land for long term agriculture with dual use solar.

I have spoken with other farm owners who expressed similar frustration with these well intended but unrealistic and naïve SMART program regulations and guidelines, as I expect you have as well.

I recently developed a traditional ground mount solar project in Rhode Island. On that one, along with rent, the land owner is getting paid by the solar facility to mow the vegetation inside the fence with sheep. They have planted both sheep forage and pollinator crops and currently have nine bee hives and about fifteen lambs on the property creating other revenue streams. The solar is making the farm profitable and making it possible to keep the land in agriculture. They don’t need weird overpriced and inefficient racking to make this happen. They are doing it with conventional ground mount solar and careful selection of forage crops.

Before developing solar projects, I have personally developed two old farms into housing subdivisions after the farmers passed away and the heirs wanted to cash out. We implemented some degree of land preservation along with green building standards on those projects. But unlike solar, which can be decommissioned quickly and easily returned to agriculture, the twenty-seven houses that now occupy those farms certainly won’t be torn down to restart agricultural production any time soon.

I am hoping that sensible feedback from experienced land owners and land developers might be helpful as you think through the future of solar in Massachusetts. I hope folks in your office will listen to farmers and developers with practical real world perspectives on these issues. The state should be making it easy and profitable to create sensible dual use agricultural projects so more farms aren't lost to housing.

Thank you for considering this feedback.

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

Fred Unger