



October 27, 2021

Eric Steltzer
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Email: DOER.SMART@mass.gov

Re: Agricultural Solar Tariff Generations Unit Guideline Comments

Dear Eric,

We appreciate the ability for stakeholders to comment on the proposed changes to the 2018 Agricultural Solar Tariff Generation Unit Guidelines. We can see from the proposed guidelines the internal discussions that may have taken place within DOER, EEA and MDAR.

Given the enormous charge given to EEA by the legislature this past year, the ASTGU Guidelines should simultaneously be trying to accomplish: 1) compliance with [Section 98 of the Act](#); 2) promote the dual use of agriculture and solar on Massachusetts farms; 3) preserve Important Agricultural Farmland soils from being taken out of agricultural potential by permanent development; and 4) create demand for new employment and farming entrepreneurship within the Commonwealth.

Given that the 2025 & 2030 Clean Energy Climate Plan (CECP), which will have the force of law¹, is required by the legislature to be published by July 1, 2022, the ASTGU Guidelines, which have taken over two years to revise, should not reflect past restrictions on solar generation but should reflect the 500-1,000 MW² that Massachusetts needs to meet its emission reduction requirements.

Given that “wind and solar generation, (are) the least-cost forms of electricity supply”³ and that investing in renewable generation “experience returns in terms of economic output that are greater than three dollars per dollar spent”⁴, leveraging the dual-use

¹ EEA Presentation 2050 Roadmap Building Solutions to Address Climate Change in the Commonwealth, April 1, 2020 siting Kane vs. DEP, Page 5

² Regional Wholesale Electricity Markets and System Planning Reforms, Multi-State Collaborative Effort, Presented by Judy Chang, December 11, 2020, Page 3

³ Energy Pathways to Deep Decarbonization, A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study, December 2020, Page 52

⁴ Economic and Health Impacts Report, A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study, December 2020, first bullet, Page 5

aspect of the ASTGU program provides an economic multiplier that is an excellent use of tariff expenditures.

In the 2050 Decarbonization Roadmap Study, the EEA forecasts that single family residential housing is anticipated to double by 2050 to total over 500 million square feet of building space, and 323 million square feet of that construction is to be built by 2030.⁵ It will be farms, with larger parcels sizes, that will satisfy demand for such development.

We appreciate the fact that the Department is trying to stop potential gaming of the ASTGU Guidelines. Market forces responding to the premium cost of the dual-use racking, consumption of more land, contractual representations to landowner and the required ASTGU revenue stream will prevent nearly all gaming from happening. An ASTGU project without required tariff revenue would experience negative revenue and would be a distressed project. The annual reporting mechanism to DOER with any threat to the revenue status of the Statement of Qualifications is enforcement enough. Investors, their bankers, attorneys, and risk managers will make sure that the business plan and backup plan are sound.



Given that farming is the required compliance operation, projects will occasionally experience all the travesties that befall being in the farming business, such as weather, market, supply chain, and very human issues such as death and health problems that affect us all. These are not gaming issues but usual problems in business that need to be managed.

For all our ASTGU farming agreements, within the fence line of the “leased premises” dual-use solar field, the farmer landowner has the first option to farm the land and we look forward to the farmer profiting from this involvement. However, the agreement will state that in the event of the farmer’s incapacity, inability, or disinterest in grazing animals, the solar developer IPP will have the ability to substitute management of the farm operation within the ASTGU facility with its own forces or other farmers.

In a conversation last week with a farmer that raises cattle, the farmer asked what would happen in the event of a drought. I responded that to mitigate the compliance situation, the lowest cost/risk for the solar developer IPP, might be to feed 9 head of cattle for a period of weeks until the drought condition moderated. To illustrate how drought can affect economic output of a haying operation, a field in normal rain/dry conditions might yield \$9,000 per field whereas that same field in a drought might only yield \$2,500. Rain has the same effect on the economics of hay, but the grazing of grass would be

⁵ Building Sector Report, A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study, December 2020, Table 3. Projected Residential Growth by Decade in the Building Sector, Page 28

unaffected by rain. There will be problems, but these can be managed just like farmers manage them today.

Clear Language vs. Well-Intended but Unnecessary Guidelines:

However well-intended, several sections of the proposed regulations present the possibility of conflicts and regulatory traps that create uncertainty within the ASTGU program and hurts the protection of prime, unique and statewide important soils and the creation of farm career opportunities.

The reality is that ASTGU projects are competing in the market for economic land use development opportunities. We need to close contractual agreements with farmers/landowners to gain land control in a clear and definitive fashion to start the Statement of Qualification entitlement process.

Proposed language below is clear; the project needs to be a current farm in 61A or is comprised of land that has prime, unique and soils of statewide importance. There is little ambiguity in the language.

4) Eligible Farmland

i. All eligible farmland shall be measured as all land that is owned or leased by a farmer that is at a minimum currently enrolled in M.G.L. ch. 61A or has been enrolled in Chapter 61A in the past five years OR is classified as Important Agricultural Farmland, e.g., prime farmland, unique farmland, or additional land of statewide importance.

Whereas the sections below need to be entirely deleted, as their continued inclusion in the Guidelines will cause more problems than they are worth because they do not serve farmers interest and protect valuable farmland soils, nor do they provide for farm career opportunities as indicated in the American Farmland Trust comments.

“Note that these provisions take into account the entire useful life of the solar photovoltaic array with consideration for the variety of possible agricultural activities and crops that could take place on farmland over that timeframe. In other words, they do not simply consider present use... These parameters provide farms the flexibility to adjust agricultural activities over time due to a variety of reasons, including different crops...”

- A. Section 4.ii - All land intended to be newly created farmland shall be deemed eligible farmland if it has been in active agricultural use and managed as a commercial enterprise by the farm applicant for not less than three consecutive years immediately prior to the date of application to the SMART program.*

and

Section 5.ii - For ASTGUs on Important Agricultural Farmland, applicants must demonstrate a history of production of their proposed agricultural commodity on the proposed ASTGU site for not less than three years immediately preceding the date of application to the SMART program.

Why are These Sections Bad for the ASTGU Program?

"In other words, they do not simply consider present use."

In 6-8 weeks, we will be submitting an ASTGU project for DOER/MDAR preliminary review. The farm in Millis and Norfolk has been in the same family since 1740 and has grazed animals for 281 years. This year, 25 cattle were harvested for meat. What are the Guidelines trying to accomplish beyond what has been successful for over 281 years?

If 225 CMR 20.00 Regulatory Provisions Specific to ASTGU's indicates project eligibility are the Guidelines subordinate to Regulations? Are they additive? Are they discretionary?

A. All land intended to be newly created farmland shall be deemed eligible farmland if it has been in active agricultural use and managed as a commercial enterprise by the farm applicant for not less than three consecutive years immediately prior to the date of application to the SMART program.

We have a farmer who purchased a 98-acre farm from a widow farmer who loved her farm dearly, but it was a lifestyle farm probably not making more than the \$500 required in Chapter 61. The farm consists of two parcels, one 8-acre farm in 61A and the other in 61 Forestry. The purchasing farmer is an American immigrant success story where he legally came to this country after the fall of the communist system in Bulgaria with \$27 in his pocket. He went to work for a pizza shop, went on to purchase the pizza shop, sold the shop and purchased the farmland where upon nine months later he commenced to build a 30' x 300' homing pigeon coop. He trains and races homing pigeons as his primary business. See: <https://newenglandderby.com>

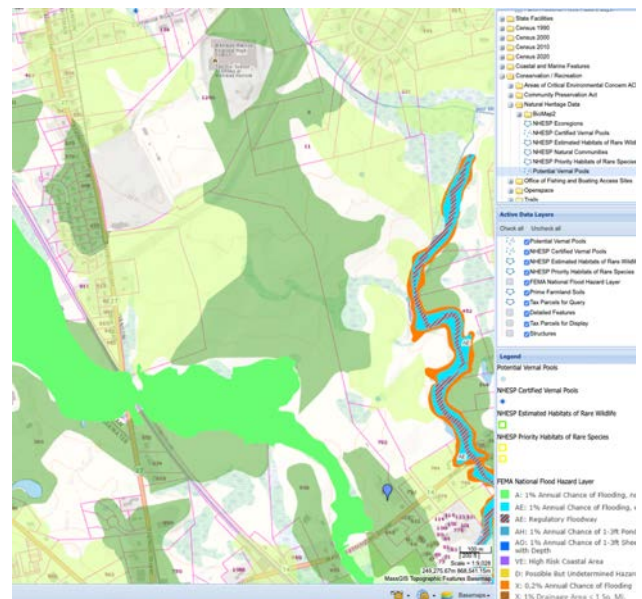
The land in Chapter 61 Forestry has both Prime and Soils of Statewide Importance as pictured to the right.

Reportedly, before the husband died, a 52-unit housing development had been designed on the site on this 98-acre site.

The homing pigeon coop on the 61A parcel, is on the lower center of the page next to the blue dot on a separate 8-acre lot.

The previous owner raised pigs, goats or sheep, chickens and kept her horse on the property. It was a lifestyle farm.

The hosting capacity map has a clear feeder and substation for interconnection.





While we believe that the CMR regulations have greater weight than the Guidelines and that we should be able to develop the land due to the presence of prime and statewide important soils, the language above effectively puts a “cloud” on moving forward to develop an ASTGU and taking land control to commence the municipal and utility entitlement development cycle.

Does the one lot in 61A held in common ownership satisfy the requirement for the larger lot in Chapter 61?

What constitutes a “commercial enterprise” when Chapter 61 only requires \$500 in revenue per year?

When do the three consecutive years start? What happens if the selling farmer wants nothing to do with providing records of prior year production?

What happens if the widow did not keep good records of her farm goods sale just over \$500 and the new farmer has only owned the premises for two years and in operation for 1.5 years? Assuming we make a SMART submittal in 12 months due to a clear feeder and substation, we will be 6 months short of the 3-year compliance obligation.

If DOER/MDAR turns this project down, this parcel will be developed for house lots in the middle of southeastern Massachusetts, one hour from Boston. Ninety-two (92) acres of Prime and soils of Statewide will fall from state farmland inventory, the farmer will not have the ability to farm this land and then pass this dual-use farmland property on to his children as per his intent, the state will not benefit from the economic multiplier of dual-use application nor added food security having locally grown food.

If the site is developed as housing, the Town will not benefit from solar + storage PILOT tax revenue with no corresponding drain on Town services that housing requires. In addition, the Towns in the local area will not benefit from local solar + storage generation and potential VAR support.

Additionally, Massachusetts will have missed the opportunity to install a 5 MW solar + storage facility to meet its emissions reductions requirement.

If the following section is reflective of the thinking that existed prior to enactment of [Section 98 of the Act](#) to capacity constrain solar through land-use restrictions, then Section 5.ii needs to be deleted because it does not benefit farmers, continued protection of farmland soils inventory, creation of career opportunities in farming and ultimately assisting the Commonwealth with compliance with [Section 98 of the Act](#) requirements of expanded renewable generation.

Section 5.ii - For ASTGUs on Important Agricultural Farmland, applicants must demonstrate a history of production of their proposed agricultural commodity on the proposed ASTGU site for not less than three years immediately preceding the date of application to the SMART program.

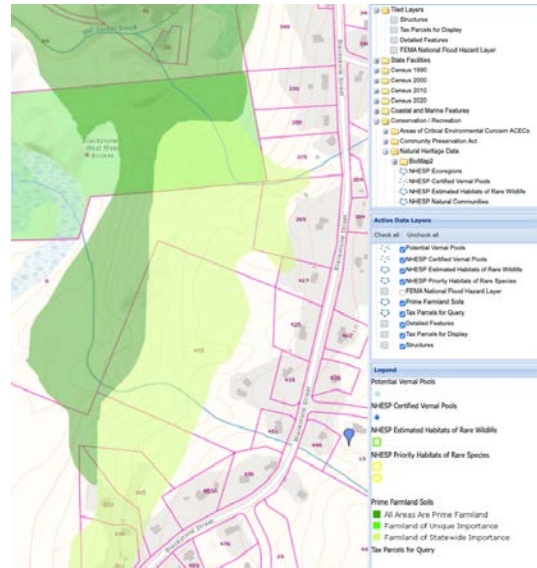


The parcels indicated above, owned by two separate parties, indicate how Section 5.ii confounds the creation of ASTGU projects.

The parcels need to be combined into one ASTGU project for economic viability. Both sites have Prime and Statewide Important soils. One parcel is an operating hay field on a portion of the lot and the other is a fully treed lot.

Both parcels used to be farmed as one lot many years ago. Both sites abut, but are not in, a BioMap 2 area.

If the Section 5.ii remains in place, the fully treed lot will be sold for house lots and has multiple test pits, (shown on the right) dug for such purposes by the prior owner. This parcel was purchased in a relationship transaction by a neighbor for the express purpose of placing solar in this property. If solar, and in this case a ASTGU project, is not economically viable to be built on this property, then the only remaining economic value for the land is for house lots whose





economic viability has been demonstrated by a newly created subdivision across the street.

We thank both DOER and MDAR for listening to our concerns about expanding ASTGU program to 5 MW AC per parcel and for expanding the AC:DC ratio to 7.5 MW DC.

Relative to the AC:DC ratio, while we believe it unnecessarily restricts solar + storage innovation, we appreciate DOER and MDAR listening and recognizing our project development concerns.

The ASTGU program should be a major fixture in the 2030 CECP plan as it will yield many benefits to the Commonwealth. The Guidelines to be amended and finalized should look forward to meeting the obligations of the 2030 CECP yet to be amended by the requirements of with [Section 98 of the Act](#) .

At a minimum, the sections below should be deleted in their entirety.

“Note that these provisions take into account the entire useful life of the solar photovoltaic array with consideration for the variety of possible agricultural activities and crops that could take place on farmland over that timeframe. In other words, they do not simply consider present use... These parameters provide farms the flexibility to adjust agricultural activities over time due to a variety of reasons, including different crops...”

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We recognize that the changes called for in [Section 98 of the Act](#) are enormous but the ASTGU program has a tremendous capability to be a significant contributor to benefits accruing to Massachusetts. We look forward to working with DOER and MDAR in moving the ASTGU program forward.

Best Regards,

A handwritten signature in blue ink, appearing to read "Doug Pope", with a stylized flourish at the end.

Doug Pope
President