



Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
DEPARTMENT OF ENERGY RESOURCES (DOER)

Response to Straw Proposal

Regarding the Definition of Agricultural Solar Tariff Generation Units (ASTGUs)

1) Introduction:

The Solar Energy Business Association of New England (“SEBANE”), a clean energy business association that promotes the expansion of solar investments throughout New England, submits the following comments regarding DOER’s straw proposal, *Qualifying Dual-Use Agricultural Solar Tariff Generating Units*.

SEBANE’s membership represents more than 85 clean energy businesses throughout the industry including commercial and residential solar developers. Collectively, these businesses support thousands of jobs and millions of dollars in investments throughout the Commonwealth.

SEBANE appreciates the Department’s willingness to consider modifications to ASTGU requirements. Our recommendations set forth herein are intended to provide farmers with increased flexibility as they seek to utilize solar resources to strengthen farming operations, boost financial resilience, and preserve family farmland for generations to come. SEBANE stands in support of maintaining certainty for farmers that harvest solar—which many farmers consider a “drought-resistant crop.” Incentives for agricultural solar units also align with Gov. Baker’s intent to promote solar resources on agricultural lands (as demonstrated when he signed Chapter

75 of the Acts in 2016), and with the Governor's desire to reach net-zero carbon emission by 2050. Below, SEBANE and our members have outlined several key recommendations to further expand a farmer's ability to take advantage of solar on lands used for crop cultivation and grazing.

2) Technical Requirements:

SEBANE supports maintaining much of the original guidelines established by DOER regarding technical requirements. Specifically, SEBANE supports maintaining the panel height requirements as it allows farmers to adequately farm crops beneath or allow livestock to graze under the panels. However, SEBANE and our members would recommend that DOER, working with agricultural experts from the American Farmland Trust, expand the definition of crop selection to include grazing options. Furthermore, SEBANE would strongly support that DOER establish a list of pre-approved crops based on available data regarding compatible sunlight needs. This list need not be exhaustive; it could simply provide a helpful guide for farmers wishing to comply with SMART guidelines.

3) Application Requirements:

Uncertainty and project reporting delays could cause a dual-use solar project to become non-compliant without the farmer knowing, jeopardizing any associated SMART incentives and future farm viability. Therefore, SEBANE recommends revising the Annual Farm Report requirement to include more transparent communications between DOER and farmers utilizing ASTGUs before penalties are levied and solar benefits are lost. Specifically, we recommend a basic warning system, under which DOER would notify a farmer of non-compliance, and prescribe a cure period that allows the farmer to come back into compliance without penalty.

4) Project Size:

In order to qualify for SMART, dual-use agricultural solar must comply with several reporting and eligibility requirements including design, sunlight exposure, and other criteria to ensure a

balance between solar generation and agricultural output. Given these considerations, SEBANE believes that the overlapping proposed requirements to regulate project size – i.e., the 125% DC-AC size cap, 2 MWAC threshold, and site coverage limit of 50% on the basis of fenced area (to qualify for 2- 5 MWAC project) – combined, would unfairly prevent farmers from fully capitalizing on the benefits of adding solar to farmland. They would also further discourage viable dual-use agricultural solar projects from occurring.

The proposed size restrictions would unfairly hinder ASTGU development, making it more difficult for projects to meet SMART program requirements regarding energy storage, increasing interconnection costs, and compete with other forms of real estate development. Most solar projects under SMART require DC:AC ratios far above 125% to generate enough energy to economically justify the cost of energy storage, even with the support of the SMART adder. Therefore, artificially capping the DC:AC ratio – regardless of project size – would all but render most ASTGU's uneconomical with the existing SMART requirement for energy storage added to projects above 500 kWAC. Additionally, in an environment of increasing interconnection costs, greater grid congestion, lengthening utility timelines, and decreasing incentives, retaining flexibility to maximize project design will be critical to the success of most solar projects under SMART, including ASTGUs. Combining the proposed 125% DC:AC ratio limit with the original 2 MWAC cap and 50% site coverage requirement would add layers of new challenges, complexity, and unnecessary obstacles to the dual-use program.

With respect to farming, the proposed restrictions would specifically disadvantage small- to mid-sized farms on the basis that many properties have insufficient acreage to meet the 50% site coverage rule and host viable solar plus storage projects simultaneously. For farms where 2-5 MWAC projects are possible, the property is not large enough to meet the proposed coverage requirements, imposing development limitation. This fact jeopardizes a successful ASTGU program that – by its very nature – is designed to support active agriculture to occur alongside a solar array. Additionally, since ASTGU fencing can accommodate farm production requirements separate and apart from solar, restricting ASTGU eligibility to 50% of the property size on the basis of fenced area would further discourage projects from implementing agriculturally optimal fencing layouts.

While SEBANE recognizes DOER's interest to retain open space on host farms, and to limit the acreage subject to the first ASTGU tranche of SMART, regulating projects on the basis of these overlapping, complex rules would work against the agricultural interests of the program. Rules like site coverage requirement would make it more costly for farmers to operate with different equipment and cultivation techniques in different areas dedicated to each growing environment that may be smaller than otherwise optimal. The 125% DC:AC ratio limit would also diminish the likelihood that farms could reap the economic and infrastructure benefits of dual-use agricultural solar.

To provide context for the aforementioned challenges, please see the examples below:

Example #1 – a recently approved ASTGU in Dighton – were it subject to the proposed guidelines – would have been unable to move forward because the property would have lacked the acreage and DC sizing to host a solar project large enough to pay down interconnection costs, host energy storage, or make a compelling economic case to the landowner over an alternative development proposal (i.e. housing subdivision). Because the ASTGU is able to move forward, however, the farm will avoid getting lost to housing and will be well positioned to transition into the next generation of ownership alongside new investments in farm infrastructure, labor, and production diversification.

Example #2 – an ASTGU under development in Western Massachusetts currently plans to install agricultural fencing (i.e. typically a cost center for farmers) over an area 150% larger than the area of solar panels to support a new grazing operation planned for the majority of the property. The ASTGU will host a third-party grazer, whose business is in its early stages. Had the site coverage requirement been in place, this project would be unable to invest in the significant length of fencing otherwise required to graze the property, thereby shifting the cost burden from the ASTGU to the young and emerging farmer.

Because these cases represent what many farms would likely face under the proposed restrictions, SEBANE encourages DOER to consider simplifying its approach to regulating

ASTGU project size so that the market – from both a solar and agricultural perspective – can proceed with greater certainty and under conditions conducive for growth. SEBANE is encouraged that DOER has created a pathway for projects up to 5 MWAC and encourages the Department to consider allowing projects up to a fixed DC-size threshold – in this case, 7.5 MWDC – in place of the proposed project size restrictions. This administratively straightforward approach would allow the Department to achieve its goal of managing the physical footprint of ASTGUs while at the same time giving the industry enough flexibility to design projects that overcome the standard challenges of solar development (i.e. interconnection costs, battery storage requirements, landowner economics, etc.). The proposed cap of 7.5 MWDC, while not a large enough size to accommodate ideal energy storage ratios over a 5 MWAC interconnection, represents a consensus among multiple industry participants in the energy and agricultural sectors. Because increasing panel efficiency will contribute to further reductions in project area under a fixed DC-size cap, SEBANE respectfully requests that DOER consider upward revisions to the cap as time progresses.

SEBANE recognizes the benefit of leveraging an aggregate DC cap to encourage design improvements in exchange for permissions to build up to 5 MWAC. As such, SEBANE strongly encourages DOER to define the 50% site coverage rule by panel area instead of fence coverage, as is highlighted in Example #2 above, if it remains committed to establishing the criteria. However, because minimum sunlight requirements in the existing guidelines already ensure that favorable site coverage ratios will be achieved, SEBANE considers the proposed site coverage rule to be duplicative.

SEBANE would also like to suggest possible revisions to the classification of eligible lands related to Chapter 61A. Expanding the definition of Chapter 61A would provide much needed flexibility for farmers seeking to maintain ongoing agricultural operations while simultaneously harvesting solar energy. It would also relieve town governments from forcing farmers to remove from 61A any land used for the solar array, and relieve the farmer from having to offer a right of first refusal for land repurchase once it is out of 61A protection. While legislation is being debated before the Massachusetts general assembly, SEBANE believes this revision to the eligible lands definitions should be considered by DOER through a stakeholder working group.

This approach would allow the Department to work in a collaborative process with technical experts to reach industry-wide consensus. SEBANE would also request that DOER include consideration for broadening the eligibility of solar on lands defined under Chapter 61 (forestry) and Chapter 61B (recreational land), especially undeveloped land where solar development either does not detract from environmental or recreational benefits or where potential impacts can be accounted for, in the proposed working group

For example, a landowner in Monson, MA, building a relatively small 250 kWAC ASTGU, was forced to remove the land under the array from 61A, and subsequently wait for the Town to decline their right of first refusal to repurchase. The right of first refusal provision made this landowner extremely nervous, as he contemplated that his efforts to go solar might require him to sacrifice his land. Were an amendment to Chapter 61A in place defining dual-use solar as an allowable use, uncertainties introduced to the project by the right of first refusal process would not have been a factor.

Application and Approval process:

SEBANE strongly supports DOER's proposal to allow projects to be submitted directly to DOER if they obtain third party certification (from the American Farmland Trust or another organization). This new provision could streamline project approval timelines and accelerate the deployment of agricultural dual-use.

SEBANE would like to thank DOER for considering our suggestions.