



October 30, 2020

To: [DOER.SMART@Mass.gov](mailto:DOER.SMART@Mass.gov)

From: Coalition for Community Solar Access

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**Re: CCSA Comments on SMART Straw Proposal Definition of Agricultural Solar Generation Tariff Units**

The Coalition for Community Solar Access (CCSA), on behalf of our nearly 70 industry and non-profit members, thanks the Massachusetts Department of Energy Resources (DOER) for receiving stakeholder feedback on the SMART straw proposal Definition of Agricultural Solar Generation Tariff Units (ASGTU). We also appreciate DOER taking into consideration many of the proposed recommendations our organization submitted last year. The dual-use program has the potential to position Massachusetts at the forefront of innovation in both agriculture and clean energy and we look forward to continued partnership in making the dual-use program successful.

Before we outline our proposed changes, CCSA would like to express its support for a broader definition of Dual-Use Agriculture as outlined in the National Renewable Energy Laboratory's (NREL) 2013 technical report: Overview of Opportunities for Co-Location of Solar Energy Technologies and Vegetation. In that report NREL outlines three types of dual-use projects: 1) Vegetation-Centric Co-Location, 2) Energy-Centric Co-Location, and 3) Integrated Vegetation-Energy-Centric Co-Location. CCSA and many other stakeholders believe all three of these project types preserve – and in many cases improve – the land for future agricultural use. We hope DOER will take this broader definition into consideration and continue to engage farmers and other stakeholders around the best way to deploy dual-use projects.

Nonetheless, we recommend several important changes to the SMART straw proposal definition of ASGTU that will strengthen the program and result in a win-win for Massachusetts farmers and ratepayers. We outline each of these proposed changes below.

**Enabling a Successful Dual-Use Program**

We recommend limiting the size restrictions to an aggregate DC cap for at least the first 80MW tranche. This will allow projects to get built while both DOER and farm managers collect data that can inform dual-use practices moving forward. Any future changes to the program can then be based on real data that shows what a successful dual-use project looks like, while recognizing the inherent value dual-use brings to both farm viability, agricultural production, and land conservation.

CCSA member companies cannot, however, feasibly build projects under the current straw proposal. With this understanding, we offer the following recommendations with the hope of collecting more data about dual-use project design and performance. We hope that DOER modifies the straw proposal to allow flexibility within the program, while allowing for further refinement of development and farm management plans further down the line.

## **Replace AC:DC and 50% Site Coverage Requirements with an Aggregate DC Cap**

CCSA recommends replacing the proposed DC:AC ratio and 50% site coverage requirement with an aggregate DC cap. A proposed DC:AC ratio of 1.25 is incompatible with SMART's objectives for energy storage – now mandatory for projects exceeding 500 KW – as energy storage demands DC:AC oversizing well in excess of 1.25. The industry believes that a 7.5MWdc cap makes sense based on DOER's wish to limit land coverage for the first batch of projects, while allowing flexibility for farmers and developers to design effective and innovative dual-use arrays. A project size cap of this nature is also in line with other restrictions placed on SMART projects and should be the only metric by which to limit project size. As we have witnessed, the battery market continues to evolve quickly, and modules are becoming more efficient, thus taking up less land area to install. Creating a limiting regulation based on this changing benchmark does not make sense. Rather, establishing an aggregate DC cap ensures that the numbers will only go down over time as streamlined and more efficient designs become available.

CCSA also urges DOER to eliminate the 50% site coverage requirement, as this proposal runs counter to DOER's stated intention of allowing continuous agricultural production underneath and among the solar panels in a dual-use array. Defining the 50% of preserved farmland based on the fenced area further limits the potential for various layouts that are in fact beneficial to the farm's overall operation, productivity, and land conservation outcomes. CCSA understands that maintaining agricultural viability is of utmost importance to DOER, participating farmers, and for the purpose of meeting the Commonwealth's food production and land conservation goals. We recognize, however, that dual-use agriculture is a key strategy for reaching these goals and for deploying much needed clean energy across Massachusetts.

Recognizing this partnership, and in light of other program rules that outline and enforce compliance with the ASGTU adder, we strongly recommend the elimination of the 50% rule. Doing so will have an outsized benefit for smaller farms who may be limited by the DC size cap as currently outlined, but can't meet this 50% site coverage requirement due to insufficient parcel acreage, higher fixed costs (i.e. interconnection, fencing), or battery storage clipping requirements. Farmers should not be forced to maintain open fields simply for the purpose of adder compliance, if doing so would run counter to the best plan for farming operations. In addition, DOER should not take on the administratively complex task of ensuring continued compliance based on land coverage, especially if the Department is considering incorporating contiguous parcels into the calculation.

If DOER *must* keep the 50% land coverage requirement, we recommend basing the definition on the land directly underneath the solar array, rather than the fenced area. No other category of projects in the SMART program are capped based on an DC:AC ratio or such an arbitrary boundary as the fence line – this is why we propose keeping the size restrictions as straightforward and administratively simple as possible.

## **Ensure Project Compliance and Flexibility**

CCSA supports DOER's proposal to allow a third-party review process for dual-use projects wishing to participate in the program. We urge DOER to establish this third-party review swiftly and are encouraged to see that American Farmland Trust (AFT) will be considered for this role.

Qualifying AFT and other experts as third-party reviewers will lessen the administrative burden on MDAR and DOER, while increasing market confidence that projects seeking the dual-use adder will be approved swiftly and accurately.

To this end, CCSA encourages DOER to outline the process by which dual-use projects are notified of their noncompliance with the adder. We suggest that this notification is followed by a cure period, allowing the farm manager ample time to come back into compliance. We understand that farming is a unique business, and one that fluctuates in production and value based on many uncontrollable factors. Establishing a clear review and cure period not only ensures investors that projects will not suddenly lose adder revenue throughout the course of the program, but allows farmers the flexibility and peace of mind to do their job and maintain successful dual-use projects and agricultural operations.

Another method of increasing investor and farmer confidence in the dual-use program is to establish pre-approved compatible sunlight requirements and farm plans. CCSA encourages DOER and MDAR to publish a list of sample farm plans that are designed to the minimum ASTGU standards, including a non-exhaustive list of crops that are compatible with dual-use design principles. Further, we recommend that DOER require projects to provide an empirical rationale, case, or data demonstrating why a crop will have sufficient sunlight and meet production requirements. Projects that apply under this detailed and data-driven approach should have a reasonable degree of certainty that they will be approved for the adder.

Such information sharing and public accountability ensures that all parties are acting in good faith and working together to design dual-use projects that meet our common goals of deploying clean energy and preserving farmland across the Commonwealth.

### **Ensuring Vertical Bifacial Modules Fall Within Dual-Use Definition**

Vertical bifacial photovoltaic systems are double-sided solar cells in which the modules are not tilted as usual but are instead placed vertically. These types of panels are becoming more popular with some developers and can bring benefits to dual-use projects by allowing more light to reach the STGU's footprint, providing more surface area for animal grazing, and allowing for existing farm equipment to continue to operate on the land. We respectfully request DOER establish a waiver option from shading analysis and height requirements if developers want to use vertical bifacial modules, assuming those modules create adequate clearance to maneuver farm equipment and continue agricultural operations.

### **Related Matters that Continue to Hinder the Success of the Dual-Use Program**

Lastly, CCSA wishes to bring two significant issues to DOER's attention, as they continue to hamper the success of the Dual-Use Program. As DOER is aware, working Massachusetts farms generally take advantage of the preferential tax regime under Section 61A. However, that participation comes with conditions that conflict with DOER's stated goals of increasing participation in the Dual-Use Program and engaging farms in meeting the goals under the Global Warming Solutions Act. Under current law, farmers who add PV systems that exceed 125% of their onsite demand (including projects that apply for the Dual-Use Program) risk losing their preferential tax status. In addition, farms that change their use designation to host PV systems risk having their local municipalities exercise a "first right of refusal" by valuing the additional purchase and sales of the solar equipment and potentially losing their zoning exemption status.

CCSA appreciates DOER's time and effort to ensure the Dual-Use Program can live up to its potential, and we hope the Department will engage in productive dialogue with the solar industry, farmers and other stakeholders to eliminate these barriers to participation.

### **Conclusion**

CCSA thanks DOER for their engagement with stakeholders thus far while developing the dual-use program. We are committed to working together to further a straightforward, flexible, and innovative approach to dual-use in Massachusetts so we can provide a win-win for Massachusetts farmers and ratepayers. We appreciate the Department's focus on this issue and welcome the opportunity to discuss our comments in greater detail.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew Hargarten', written over a light blue horizontal line.

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