

October 30, 2020
Patrick Woodcock, Commissioner
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston MA, 02114



Re: SMART Agricultural STGU Straw Proposal

Dear Commissioner Woodcock,

Hyperion Systems is thankful for the opportunity to comment on the SMART Agricultural Solar Tariff Generation Units (ASTGU) Guideline Straw Proposal for consideration by the Department of Energy Resources (DOER).

Hyperion is a solar project development and research firm based in Massachusetts. Our mission is to build PV arrays that add value to farmers business operations with specific concentration on dual-use, or agrivoltaic, arrays. Hyperion firmly believes dual-use solar creates positive feedback loops for the Commonwealth by helping meet renewable energy & battery storage goals while also enhancing farm resiliency through limited risk revenue diversification.

Hyperion has participated with a group being led by American Farmland Trust to jointly submit comments. In addition to those comments, Hyperion submits following additional comments:

Application and Approval Process

Hyperion is in full support and encourages third party approval process as its written in the Straw Proposal, which is being led by American Farmland Trust.

Eligible Farmland

Since the creation of the ASTGU adder within the SMART Program in 2017, Hyperion has spoken with several hundred farms in Massachusetts. Due to existing land restrictions, a considerable percentage of the farms are not able to consider a solar installation on their land, even if the array design meets the ASTGU requirements.

Hyperion encourages a policy review with MDAR and stakeholders, Mass Farm Bureau Federation for example, to consider cap increases for solar on restricted farmland. Many existing covenants now tolerate solar to be installed on the restricted farmland, but the size of the array is often limited to the farms behind the meter energy usage. On site behind the meter energy use often limits the farms array size to small capacities, 25kW or less, which doesn't meet the ASTGU minimum required array size in order for projects to qualify for the adder.

Hyperion supports the new ASTGU Straw Proposal Project Size policy that states “No more than 50% of the eligible farmland based on the DC system size capacity, up to 5MW AC.” This policy should be expanded upon in a way that ensures smaller farms ability to participate in the SMART Program. ASTGUs are designed to keep farmland in production, they’re not permanent structures, and they enhance the resiliency of farms. This is all within the intent of many existing farmland restrictions, yet smaller farms with limited behind the meter usage aren’t able to participate because of their limited energy consumption.

Panel Height

Alternative methods of agrivoltaic design are being considered and installed with greater interest around the world. Currently, there are research and commercial arrays of vertically installed panels, which are 3’-4’ feet off the ground. This does not meet the requirements as written. We encourage greater flexibility in design options. Vertically installed arrays offer a unique data set for agrivoltaic research – current studies for this installation method indicate greater kWh production during daily peak demand than compared to overhead agrivoltaic arrays. While projects can submit a waiver request, this is an overt blemish for any vertical mount agrivoltaic project even before initial review.

Battery Requirements

Hyperion encourages an exemption for ASTGUs from the SMART Program requirement for storage at projects > 500 kW. The proper stewardship of agricultural land is of utmost importance and mandated on site energy storage that will likely require concrete pads or some other means of complete ground coverage does not qualify as best practice use of farmland.

Thank you for consideration of these comments.

Jake Marley
Hyperion Systems