

February 23, 2018

To the Massachusetts Department of Energy Resources,

Jordan Energy & Food Enterprises, LLC is a solar development company that has been operating since 2007. In the ten plus years of operations the Massachusetts solar market has been an important subset of our total solar efforts. As our name implies, we have been heavily focused on the agricultural, food, and farm markets. Over 75% of our clients fall into these categories. We see solar as an intelligent diversification of on farm activities that creates important supplemental revenue streams for farmers and enhances the environment at the same time.


We commend the DOER for creating Agricultural Solar Tariff Generation Units as part of the SMART Program. This priority has the potential to significantly improve the lives of the very farmers we seek to partner with in Massachusetts.

We hope that the program will consider the benefits of pollinator friendly plantings as qualifying to receive Agricultural Solar Generation Units Compensation Rate Adders. Having worked around agriculture our entire lives, we know how important bee populations are to the healthy growing of agricultural crops. An economic analysis performed by the Nature Conservancy found a direct increase in yield and gross revenue for 10 major crops grown in the northeastern United States due to the installation of nearby pollinator habitat, even after subtracting out implementation costs.

This concept has been piloted with great success in Minnesota, where the nation's first voluntary standard was signed into law in 2016. Led by Fresh Energy, a not for profit we have been partnering with, this initiative yielded 2,350 acres of pollinator habitat at solar sites in its first year alone. We are hoping to surpass this level of pollinator protection by replicating this concept here in Massachusetts. Fresh Energy has pointed out that the neighboring state of New York, lost 40,000 bee hives in the last year, approximately half of the state's bee population. Pollinator friendly solar will strengthen bee populations in ways that

The environmental and economic benefits of establishing pollinator-friendly, native habitats under short canopy solar arrays would be numerous:

- Provides much needed habitat to sustain pollinators
- Increases agricultural productivity (see above)

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- Improves soil fertility, with a total remediation of soil anticipated over the 20-25 year life span of an array
 - Prevents runoff and erosion by improving stormwater infiltration
 - Preserves biodiversity (>450 wild pollinator species in NYS)
 - Increases economic activity (demand for native plants, local ecologists, landscapers, seed growers, nurseries, etc.)
 - Increases the opportunity for expanded bee keeping and honey production

Solar arrays sited on agricultural or agricultural-adjacent land would maximize these impacts, thereby providing another important benefit for farmers: supplemental income in the form of lease revenue from solar developers, like ourselves, as well as beekeeping and honey production.

We believe this work could be transformative for both the agricultural economy and renewable energy development in Massachusetts. We are concerned that the Guideline Regarding the Definition of Agricultural Solar Tariff Generation Units is too focused on minimum height of arrays to allow for crops and livestock underneath vs. actual documented economic and environmental benefit measurement. We know we can document that pollinator friendly solar on arrays that are lower to the ground than a minimum of 8 feet can generate more total economic and environmental benefit than simple crop cultivation on animal grazing. We believe that the Massachusetts Department of Agricultural Resources, in their consultative role to this guidance, can evaluate economic gains, affirm measurements of such gains, and approve pollinator friendly solar habitats such that they can be included to receive the Compensation Rate Adders for these Agricultural Solar Tariff Generation Units. We hope that this input can be taken into consideration as the guidelines are finalized. We further offer ourselves, with some of the farmer partners we already have in Massachusetts, to provide some case study pilot sites on this issue.

Thank you, in advance, for your consideration of these perspectives, and thank you for implementing the Agricultural Solar Tariff Generation Units, which we believe will help farmers throughout the Commonwealth of Massachusetts.

Sincerely,

Bill Jordan
CEO

