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State of New Jersey
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350

RE: Comments regarding Docket No. QO21101186 Competitive Solar Incentive Program

Dear Commissioners,

Ameresco hereby submits comments to the New Jersey Board of Public Utilities ("BPU or Board") in response to the New Jersey Solar Successor Program Competitive Solicitation. Thank you for the opportunity to file comments.

Ameresco is a renewable energy developer based in the Northeast with over 529 MW of solar projects completed and in construction across North America, including projects in New Jersey. We develop customized solar projects for a range of customers including commercial and industrial customers, utilities, Federal, state and local governments, as well as community solar projects, to best fit the customer's needs and constraints. Our portfolio includes solar PV rooftops, carports, landfills/brownfields, dual use agriculture and ground mounts, developed through a net metering, community solar or other solar incentive programs available, and we also deploy standalone storage as well as collocated storage with our solar projects to maximize the benefits to our customers. We are interested in commenting on the Competitive Solar Incentive Program in effort to better address the challenges of developing these different project types and market segments for the State of New Jersey.

Ameresco greatly appreciates all the work that went into developing the Competitive Solar Incentive Program. We are particularly supportive of the Board of Public Utilities decision to continue certain aspects of the Transition program, including the differentiated market segments for "contaminated sites" (encompassing landfills/brownfields and other contaminated sites), as part of the program design, as well as future program phases. Nevertheless, we would like to propose recommendations on agrivoltaics and storage for consideration.

Agrivoltaics

In light of the recently passed legislation to create a dual use agriculture pilot now being considered by the BPU, we would like to propose that the BPU consider incorporating agrivoltaics into the Successor Program both under the Adminstratively-determined incentive (ADI) and the Competitive Solicitation for three key reasons: 1) Agrivoltaics provides numerous benefits to farmland and the environment, including increasing maintaining and in some cases increasing crop production and renewable energy production which provides multiplicative benefits; 2) Agriculture contributes a significant share of GHG emissions – 17% through agricultural activities and 7-14% through land use changes (OECD 2016)[1]. To support sustainable, climate-friendly, and productive agriculture, we need to shift incentives and policy efforts to promote a different approach through agrivoltaics and regenerative agriculture; Lastly, 3) Agrivoltaics

[1] https://www.oecd.org/agriculture/ministerial/background/notes/4_background_note.pdf

provides additional revenue to farmers to supplement their livelihoods and ensure that their land can continue to be passed on through generations.

We would like to propose two separate incentive structures for two categories of farmland, for industrial farmland and livestock grazing for Category 1, and vegetable farms and livestock grazing, as well as regenerative agriculture, would fall under Category 2. We argue that it is important to allow for both categories to receive incentives under the ADI, as well as the Competitive Solicitation, owing to the differentiated costs of developing agrivoltaic projects associated with different categories of farmland (and the economies of scale of a 5 MW versus 10 MW system), as well as the additional benefits associated with agrivoltaics compared to greenfield projects.

Category One: Competitive Solicitation for industrial farming
For large-scale commodity farming and livestock grazing, we recommend a separate tranche under the competitive solicitation so that like-projects can compete fairly. Grid supply agrivoltaics projects up to 10 MW should be eligible for an Agrivoltaics adder designed under the Administrately-determined incentive (ADI).

Category Two: Administratively set incentive – Adder for community solar agrivoltaics
For vegetable farms, livestock/grazing operations and regenerative agriculture (see description below), we recommend this type of farmland fall under the ADI and receive an additional adder for agrivoltaics projects, which are paired with community solar projects on farmland (up to 5 MW). We recommend that actively farmed land *and* renewal of inactive farmed land be eligible for this adder to ensure that a large scope of farmland is preserved through agrivoltaics and a diverse set of farmers can benefit from the program. The adder value would be set at a higher rate for Category Two farmland than Category One farmland. Regenerative agriculture practices should not be required but should be eligible for additional incentives if they are implemented.

For both categories, we recommend that the land is evaluated using third party certification and that these projects are evaluated using a Land Equivalent Ratio, instead of productivity measures, which could be harmful to farmers.

Regenerative agriculture
Regenerative agriculture is a key consideration for receiving a higher incentive as it fosters sustainable and climate-friendly agricultural practices by eliminating or decreasing tillage, reducing the use of petroleum-based or artificial fertilizers, promoting biodiversity, and integrating holistic planned grazing.

1. Promote biodiversity - this is done through cover crop and crop rotation which provides continuous green cover that promotes greater biodiversity and protects the soil from weather erosion. Potential minimum requirement: annual planting of fall cover crop (NRCS Standard 327, 328 & 340).

2. Eliminate or decrease tillage - plowing, harrowing and rototilling exposes soil which releases carbon dioxide into the atmosphere and breaks soil aggregate structure which increases soil compaction and water runoff. Eliminating tillage increases carbon sequestration and retention of water and nutrients. Potential minimum requirement: follow no-till or reduced till practices for planting of all crops (NRCS Standard 329, 345), annual soil testing to document organic matter and compaction.

3. Reduce the use of petroleum based or artificial fertilizers - synthetic fertilizer creates an imbalance of microbes in the soil which impedes the natural processes by which plants interact and absorb nutrients. Potential minimum requirement: documentation of Integrated Pest Management practices followed, demonstration of fertilizer reduction as regenerative practices are applied.

4. Integration of holistic planned grazing - conventional grazing of livestock can lead to increased soil compaction, decreased soil nutrients, lower crop production, increased water runoff, etc. These impacts can be reversed through integration of holistic planned grazing which essentially involves increasing animal density and decreasing grazing duration. This practice is an essential part of growing crops using concepts 1-3 above. Potential minimum requirement: documentation of holistic grazing plan rotation (animal numbers, paddock number and size, grazing duration).

These new and innovative practices will take additional time to implement and may incur additional costs in the short-term but provide tremendous benefits to the planet and climate change in the near- and long-term.

Storage

In addition to agrivoltatics, Ameresco has recommendations for the storage hybrid category under the Competitive Solicitation. Ameresco is pleased to see that the Board has included collocated storage in the grid supply competitive solicitation proposal and intends to consider different storage programs in the next phase of the Successor Program. However, we urge the Board to consider a few changes to the evaluation of storage bids. Grid supply storage requires separate evaluation criteria than grid-scale solar. While solar PV can be assigned to in the form of a $/kWh bid for solar production, storage performs a service which should be compensated to realize its full benefits to the grid and customers. We recommend that compensation take two forms, either: 1) the storage would receive a $/kW contract to be compensated for performance during a specific prescribed window as demonstrated in Connecticut's Storage Program (see DOCKET NO. 17-12-03RE03: Section III.C), allowing the storage and the solar to work in parallel but provide separately evaluated bids; or 2) alternatively, the BPU can consider compensating storage at a $/kWh price for performance during specific windows in which a certain number of effective cycles are to be accomplished (See MA SMART 225 CMR 20.00 Guideline on Energy Storage 6.f.1 [provided in Exhibit A]). In the latter case, we recommend that the solar and storage assets provide a joint bid into the program, since the two assets and their bid price are interdependent and therefore, the solar bid is dependent on the storage compensation. With whichever evaluation criteria NJ determines most appropriately defines the best use for NJ ratepayers, Ameresco suggests that distribution scale front-of-the-meter storage projects have the same opportunity to pursue this use case and be considered eligible under the Successor program.

Thank you for your consideration of these comments. Please don't hesitate to contact us with any questions. As noted during the Competitive Solicitation Stakeholder Session on November 30, we also intend to issue comments in the forthcoming BPU Stakeholder Session on the Dual Use Agriculture Pilot.

Sincerely,

Kathryn Chelminski

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Exhibit A: MA SMART 225 CMR 20.00 Guideline on Energy Storage 6.f.1

The Massachusetts SMART Program provides an example of an alternative way to compensate Energy storage under the NJ Competitive Solicitation. In this program, energy storage is compensated at a $/kWh price for performance during specific windows in which a certain number of effective cycles are to be accomplished. Please see excerpt below for details, or visit: https://www.mass.gov/doc/ess-guideline-october-2020/download.

f) How does an Energy Storage System demonstrate compliance with the operational requirements in 225 CMR 20.06(1)(e)5[4]

An Energy Storage System must accomplish one of the following to comply with operational requirements:

1) discharge at least 52 complete cycle equivalents in a calendar year, whereby the 52 cycles may be pro-rated in the first operational year of the Energy Storage System based on its Commercial Operation Date; or

Option #1: The Energy Storage System may fulfill the operational requirements by dispatching the Energy Storage System during the summer peak hours and winter peak hours.[5] Energy Storage System Owners may choose when to cycle during any hours included during this window.

[5] Summer peak hours are defined as Business Days, June 1st – September 15th, between 3 PM and 8 PM. Winter peak hours are defined as Business Days, December 1st – March 1st, between 4 PM and 9 PM.