



Planning and Land Use Services

Building ▪ Energy ▪ Historic District Commission ▪ Planning Board ▪ Zoning Board of Appeals

Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

July 11, 2017

To Whom It May Concern:

On behalf of the constituents of Nantucket, please accept the following comments and suggestions regarding 225 CMR 20.00, the Solar Massachusetts Renewable Target (SMART) Program Emergency Regulation.

NANTUCKET BACKGROUND

There are many unique challenges to successfully developing solar photovoltaic systems on Nantucket, most of which can be attributed to the island's remoteness. The island's geographic location 30-miles off the coast of Cape Cod naturally increases project construction costs, in certain instances by up to 50%. On Nantucket, not only is it more difficult and expensive to site land for renewable energy systems, but costs are also typically higher due to extra transportation and shipping logistics and fees, permitting requirements—such as those imposed by the Historic District Commission and the Massachusetts Endangered Species Act (MESA) regulations, and higher labor and insurance rates. In fact, insurance policies are extremely difficult to obtain for any local project, since all Nantucket projects are located in extremely high wind zones and within 1-3 miles of the ocean.

Although Nantucket is serviced by its own distribution company (Nantucket Electric Company d/b/a National Grid) and eligible under a separate, designated net-metering capacity, the cap remains nearly untouched as our entire island is registered as a National Historic District with 50% of the island already designated as permanently protected as open space, and 80% of the island mapped as *Priority Habitat* home to thriving populations of rare species -- including land at the municipal waste water treatment plants, water towers, landfill, and airport.

However, Nantucket has an especially compelling need to develop solar, as recent National Grid energy forecasts show the demand for electricity on the island is growing more than five times the Massachusetts statewide average, reaching an all-time record high "peak load" of 48 Megawatts (MW) in the early evening of Sunday, August 14, 2016; a 20% increase over the 40MW peak reached just four years earlier.

BLOCK ALLOCATIONS: (20.05) (3)

Regarding Load Share Blocks, we are pleased that there is a separate allocation specifically for the Nantucket Electric distribution zone, just as Nantucket Electric is allocated a separate net-metering capacity from the rest of National Grid in the Massachusetts System of Assurance of Net Metering Eligibility (MassACA). However given its comparatively small electric load, it would be unreasonable and inappropriate for Nantucket to be allotted eight equally sized declining blocks (~736kw per block).

For one reason, the allotment is significantly smaller than the largest project size allowed in the program (i.e. less than 5MW). Given the increased cost of developing solar on Nantucket, we strongly advocate that a larger minimum amount of capacity be reserved for Nantucket in Blocks 1 and 2. Furthermore, for program consistency, we propose that a minimum block capacity be established. Considering the largest project size allowed in the program is 5MW,

it could be reasoned that a 5MW minimum be established per block allocation as it would be consistent with other program design considerations, and less arbitrary than requiring blocks of equal size, in this specific instance.

It is clear how the current block design is based on a high-capacity solar development model, which is consistent with the rate of solar growth on the mainland. However, on Nantucket where projects take significantly longer to permit, finance, and construct this type of model simply does not work.

LAND USE SITING CRITERIA: (20.05) (5)(e)(1)

Nantucket does not have designated Brownfields, highway roadsides, large parking lots suitable for solar canopies, industrial structures with adequately engineered roof areas, or capped landfills as are encouraged and incentivized for development under the proposed Land Use Siting Criteria.

As only Category 1 Solar Tariff Generation Units would be economically viable for development on Nantucket, we suggest that an additional criterion be established for Category 1 Non-Agricultural designation for when systems can serve as a viable Non Wires Alternative to defer or replace the need for specific transmission projects, at lower total resource cost, by reliably reducing transmission congestion at times of maximum demand in specific grid areas.

PROCUREMENT (20.07)(3)(a)

Due to a present lack of ample, available, and developable land on Nantucket, there is likelihood that no proposals for a Nantucket-based project (solicited by Nantucket Electric d/b/a National Grid) will be received. In this instance, the Town of Nantucket requests that the ceiling price be established as the Base Compensation Rate.

COMPENSATION RATE ADDERS (20.07)(4)(a-b)

Lastly, it is recommended that the DOER provide an additional Location Based Adder (up to \$.06/kWh) for “priority utility distribution zones” to help incentivize the development of solar energy systems that provide specific grid benefits, such as those that are strategically installed and operated in targeted geographical locations with identified load constraints.

Alternatively, an additional “Off-taker Based Adder” should be considered for a Solar Tariff Generation Unit that serves as a “Non Wires Alternative” (NWA)— local energy and other non-traditional means to ease system overloads instead of conventional transmission and distribution infrastructure. Promoting solar photovoltaic systems as Non Wires Alternatives is consistent with the Commonwealth’s environmental protection goals, especially concerning air emissions included those required by the Global Warming Solutions Act by displacing non-renewable generating resources.

In the case of Nantucket’s energy forecast and need to reduce summer peak load, these adder incentives could help support a non-typical system design, where panels could be oriented not to achieve maximum solar exposure and economic returns, but to achieve a closer match between peak system output and late afternoon feeder peak demands.

Thank you for your consideration of these comments. Should you have any questions regarding this letter please contact me directly.

Sincerely,

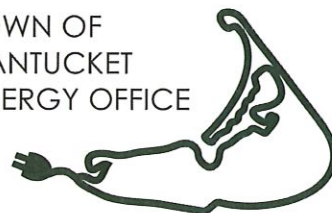


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TOWN OF
NANTUCKET
ENERGY OFFICE



EmPowering a more sustainable energy future for Nantucket