

Town of Nantucket
NANTUCKET MEMORIAL AIRPORT
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October 20, 2016

Michael Judge
Director, Renewable and Alternative Energy Development
Massachusetts DOER
100 Cambridge Street, Suite 1020
Boston, MA 02114

Re: Current Design Considerations for the Next Generation Solar Incentive

Dear Mr. Judge,

I am writing to you today to provide comments regarding *Current Design Considerations for the Next Generation Solar Incentive*. I wish to raise several concerns related to Solar Siting Criteria and the Nantucket Load Share Block. In its current form, I believe that the draft considerations will have the unintended effect of disqualifying meaningful generation of solar capacity within the entirety of Nantucket County. As the Environmental Coordinator for Nantucket Memorial Airport, I have been involved with the analysis of multiple solar PV proposals on Airport property. The Airport contains the largest contiguous area available for solar PV on the island. It is favorably sited for interconnection, and located in a remote and industrial area where the "out of historic character" aesthetics of such a facility would not impact residents and visitors. It is also entirely mapped habitat, and the subject of intensive scrutiny under the Massachusetts Endangered Species Act. Since three separate solar PV proposals for this area have failed due to competing economic and environmental issues, I believe I can speak with authority on this matter.

The DOER is relying on land-use restrictions as proposed in a joint letter from Massachusetts Audubon, the Massachusetts Land Trust Coalition, the Nature Conservancy, and the Trustees of the Reservation. These groups are respected for their preservationist viewpoint, and I consider them important collaborators in our own NEPA/MEPA review process. However, I believe their advocacy for *Designated Priority Habitat for State-Listed Rare Species* as a disqualifying condition for PV development is redundant. As you know, 'Priority Habitat' does not denote the actual presence of a State-listed rare species. This designation exists to inform of the potential for such a species to be present, and the required review steps to follow. These subsequent review requirements under 321 CMR 10 exist to separate the cases of actual rare species habitation from

potential habitation. Incorporation of '*Priority Habitat*' as a disqualifier is redundant: the necessary review and evaluation for siting solar PV arrays in these areas is already in place.

Such a designation is also inappropriate for Nantucket. While I know of no existing study to cite, Nantucket clearly bears a highly disproportionate share of Priority Habitat per available land area, likely the highest of any County in the Commonwealth. I challenge you to compare Nantucket County to your own. Roughly 80% of the Island land area is mapped Priority Habitat. Areas not mapped as such are exclusively residential housing. The physiography and economic structure of Nantucket does not support Brownfields, highway roadsides, abandoned agriculture, or industrial activity with suitably engineered rooftops. In the remainder of the Commonwealth, alternatives exist for PV siting. On Nantucket, use of the "*Priority Habitat*" siting designation is incompatible with actual PV site development. It is also inappropriate for the intended purpose of invoking environmental siting requirements, as over 50% of the Island is already protected open space, and home to thriving populations of rare species.

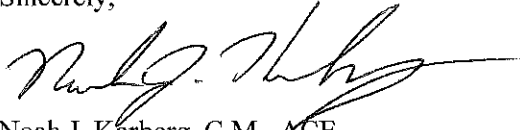
The presence of '*Priority Habitat*' as a disqualifying condition is also at cross purposes to the DOER's goal of encouraging solar PV development. Climate change presents a grave threat to rare species through two mechanisms. The first is by physical erosion of coastal areas; destroying the marsh, estuarine, and coastal grassland systems that provide for a disproportionate share of Massachusetts' rare species. The second is by altering the phenology and micro-meteorological conditions of an area, changing a habitat to the point where it no longer is able to support the pre-existing rare species community. Designating an area as '*Priority Habitat*' confers no adaptive strategy, no land management, and no effort to protect biodiversity of an area against climate change. Ecologists already concede a continuing loss of biodiversity over the decades to come, through both the physical loss from erosion and changing site conditions. The irony, is that solar PV development is an additional active step the Commonwealth can take to mitigate the effects of climate change and preserve rare species. We may believe that designating an area as '*Priority Habitat*' is conferring a long-term benefit. The reality, when that label is used to forestall renewable energy development, is that we are complicit in a certain long-term decline of those same species.

From an analysis of the economic performance of multiple solar models, I also have concerns regarding a Nantucket block allotment of <1 MW, as it seems that the block management program being proposed is strictly designed to accommodate high capacity development. This model is incongruous to the extra time and expenses required to develop solar on Nantucket. The cost of entry for a project on Nantucket exceeds that of the remainder of the Commonwealth. This is amplified when looking at the scale of efficiencies gained in adding capacity into that project model. Remoteness and cost of living continuously factor into our high construction and maintenance cost estimates: I have still not seen a < 1 MW model that could be economically viable, even under the more advantageous SREC I and SREC II programs. Our minimum would be at least 1.5 MW, with the most cost effective arrays being those at the limits of the distribution system. It is also my assumption that the <1 MW allotment would be ineffective in addressing the Island's peak loading issue, and unattractive to National Grid or other 3rd party as well.

Thank you for taking the time to review my concerns regarding the *Current Design Considerations for the Next Generation Solar Incentive*. I am strongly against the application of a '*Priority Habitat*' disqualification for Siting Criteria, as I believe it is redundant for the entire Commonwealth, and especially inappropriate for Nantucket. I would suggest that this item is removed from consideration entirely, or at least a clear exception be written into the next SREC Incentive for Nantucket. I would also suggest that the Block Allotment for Nantucket more reasonably address the business, utility, and social case for 3rd cable avoidance. This could be

accomplished by considering a different model, such as % of peak load. However, unless the first issue can be addressed, the second is irrelevant.

Sincerely,

A handwritten signature in black ink, appearing to read 'Noah J. Karberg', with a long horizontal flourish extending to the right.

Noah J. Karberg, C.M., ACE
Environmental Coordinator

