

MEMORANDUM

To: Secretary Richard Sullivan
From: Lauren Sinatra, Nantucket Energy Office
RE: Green Community Initiatives on Nantucket
Date: 5 August 2013

As preparation for your upcoming visit, this memo provides a brief overview of the history on Nantucket of development of wind and solar PV electric generation facilities; consideration of eligibility as a Green Community; and energy efficiency initiatives. We look forward to discussing these issues with you in more detail.

Wind turbine development. There are two non-residential wind turbines on Nantucket – a 100-kw turbine at the Nantucket High School, which was a free gift to the Town from the ReMain Foundation, and a privately-owned 200-kW turbine at Bartlett’s Farm (known locally for organic produce). Attempts to site a 900-kW wind turbine at the Town landfill, developed with assistance from a MassCEC grant, were defeated at the 2012 annual Town Meeting by a strong opposition group that objected to its potential adverse visual impacts on the Nantucket character and skyline. The opposition also spread information locally on potential adverse noise and health impacts and on potential for unfavorable project economics, notwithstanding the hugely favorable wind resource. The opposition remains strong and organized and politically visible.

Solar PV facility development. Development of solar PV facilities on Nantucket faces two key barriers. First, the entire island of Nantucket is a historic district with extreme limitations on the appearance of its buildings. Thus, under current HDC rules, rooftop solar systems are precluded from being installed if visible from a public way. Second, Nantucket real estate is extremely expensive, and areas not yet developed are typically limited by habitat impact issues. Thus, ground-mounted solar PV systems are typically not feasible due to development and cost constraints. Notwithstanding these constraints, the Town hopes to develop solar PV facilities on disturbed land or canopies over parking lots at the Airport; on selected Town buildings outside the historic core and shielded from general public view; and, eventually, at the Madaket Landfill after the ongoing reclamation project is complete, which is anticipated for 2020.

Limits on net metering have not been a constraint on Nantucket, because the Nantucket Electric Company, which is part of National Grid, is subject to its own limits on eligibility that cannot be utilized by other towns. For this issue, being an island is helpful.

Green Community. Several initiatives to meet the eligibility criteria to become a Green Community have been defeated at Town Meeting, including articles for by-right siting of wind

turbines in a limited overlay district; and adoption of the Stretch Code, which poses particular difficulties for implementation in the context of an island-wide historic district.

Energy Efficiency initiatives. Notwithstanding all of the above, as well as the challenges of being an island community located 30 miles off the coast, Nantucket has huge successes in implementing energy efficiency measures that include:

- An innovative approach to offering energy audits to residents and businesses through the MassSave Program.
- Implementation of lighting upgrades and non-lighting measures after audits of municipal facilities through the Direct Install and other National Grid programs.
- Efforts to track municipal energy use through MassEnergyInsight and pending efforts to encourage energy conservation behavior through the See the Light Energy Toolkit program and otherwise.
- Strong programs for educating residents and businesses about energy efficiency opportunities.
- Acquisition and installation of LEDs in municipal facilities, with an ongoing pilot program to investigate conversion to LED streetlights in a way compatible with considerations of historic preservation.
- Installation of electric vehicle charging stations.
- Installation of demand response capability to use the back-up generator at the wastewater treatment facility at times of peak electric demand.
- Education programs for local builders given the unique constraints for building on Nantucket.
- Installation of ground-source heat pumps in the new public safety building, at the airport, and in numerous private homes.

These and other measures are addressed in comprehensive policy guidelines passed in 2012 by the Nantucket Board of Selectmen and being implemented by the Nantucket Energy Office, which can be provided under separate cover.

We look forward to welcoming you to Nantucket and to discussing these issues during your visit.