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Aquinnah Keeps Wind Power Plan Moving

By JACK SHEA

Aquinnah is double-timing its effort to bring wind power to the community.

Selectmen on Oct. 21 submitted an application for an analysis of Aquinnah's existing wind power, conducted cost-free by the University of Massachusetts renewable energy research lab under the auspices of the Massachusetts Technology Collaborative (MTC).

The application comes as the Aquinnah selectmen last week nominated their town to the Martha's Vineyard Commission as an energy district of critical planning concern. The commission unanimously agreed to review the nomination. One effect of the nomination is an immediate one-year moratorium on other wind projects in town.

Selectmen chairman Camille Rose is committed to the fast pace for developing plans for a publicly-owned wind energy system, reiterating this week that she hopes to do that within six months. "We have a year under the moratorium, but we can do this in six months," she vowed.

Three potential sites, all on town land, were identified in the application: on the Aquinnah Cliffs, behind town hall, and on Moshup Trail at the site of the former long-range navigation (LORAN) tower.

The application envisions a 350-foot wind turbine generating three megawatts of power. A typical Aquinnah residence uses 8,000 kilowatt hours per year. The town currently uses 58,785 kilowatt hours per year. The proposed tower would produce 7.8 million kilowatt hours per year.

MTC is a quasi-official state agency that seeks to develop diverse renewable energy projects. A senior project manager there, Chris Clark, said the application has yet to be reviewed in depth.

"From a wind standpoint, Aquinnah ranks in the top 10 per cent of the 40 sites [MTC has reviewed]," Mr. Clark said. "But many other factors are included in the review and in determining the size of the turbine."

If MTC approves Aquinnah's application, scientists will measure wind velocity for viability and review the proposed sites in terms of size, wind velocity and environment. The 13-page application requires information on vegetation, wetlands and soil, as well as proximity to other structures and airports. MTC could also propose alternative sites.

"We have enough wind," said Carlos Montoya, who leads the town's wind committee. "Our prevailing winds are from the south/southwest at 20 miles per hour and 17 miles

per hour from the southwest.”

MTC recommends minimum sustained wind velocity of 14 ½ miles per hour for a turbine project.

“In principle, the MTC says that is ideal, but the survey will take several months. They will review the sites for every possible flaw we may not have detected, looking also at noise impact and ‘fatal flaws’,” Mr. Montoya said.

The site survey is the first step in a three-part study. If the site survey is positive, next comes a feasibility study, also MTC-funded, that Mr. Montoya said focusses on “really practical stuff like the interface between the turbine and the wind resource; which machine is most appropriate; and how to deliver the generated power to the system.”

The final stage is a financial analysis; it requires the town to develop a business plan.

“It’s a very thorough process, including an analysis of the payoff for the town and how to finance the project,” Mr. Montoya said.

Part of the analysis is to reckon the relative value of private versus public wind energy. The town is proposing public ownership.

Turbine purchase and installation cost is yet to be determined, but Mr. Montoya estimates a range of \$3 million to \$5 million. A bond issue was cited on the application as one financing option.

The town would sell all its power into the power system on the Island. While the energy created would flow through NStar lines, a number of wholesalers could act as agents for the sale.

All power generated would be sold at wholesale rates; Aquinnah residents would buy energy at retail rates as they do now. The value of the excess wholesale power would be remitted to the town to be used as voters determine.

The application says the town wants “to regulate wind energy development, to generate revenue and develop green energy.”

Mr. Montoya and selectmen this week credited Chris Seidel of the Martha’s Vineyard Commission and Brian Nelson of Nelson Mechanical Design in Vineyard Haven for pro bono help with the MTC project. Mr. Nelson was named to the wind committee by the selectmen this week.