

Airport's carbon-neutral effort hinges on solar

By Caroline Stanton

cstanton@inkym.com Two years ago Nantucket Memorial Airport received a grant to allow it to pursue becoming the first carbon-neutral airport in the United States. But following the completion of the project's first phase, soliciting an investment-grade audit from Honeywell Building Solutions this summer, the project has come to a halt.

The investment-grade energy audit is a thorough examination of the airport's energy usage. The final report from the audit presented the airport with a laundry list of energy conservation measures – a number that environmental coordinator Noah Karberg reports to be in the low 20s – for the airport to take in order to reach its carbon neutral goal.

While the bulk of the measures will enable the airport to cut its energy use tremendously, installation of a solar field is what airport manager Tom Rafter calls the “lynchpin” to realizing its carbon neutral goal.

Having already taken steps to reduce energy usage through a lightbulb replacement program and other efforts with the town's energy coordinator, Lauren Sinatra, the solar field is the only remaining initiative for the airport to reach its carbon-emission reduction goal.

“One of the challenges that was identified was that the airport had AIRPORT, PAGE 15B

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Airport: Facility's carbon-neutral effort to conserve energy hinges on solar

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already done a lot of energy conservation measures with Lauren's assistance,” Rafter said.

While the solar field is the project's “lynchpin,” it has also become the biggest headache.

“We looked at a number of places for solar. We looked at the rooftop of our building, we looked at a layered concept in the parking lot, we looked at already disturbed industrial complexes,” Karberg said. “We saw that the only spot that was going to work for an FAA glare study and an interconnections study is in Natural Heritage priority habitat.”

The land is currently inhabited by a specific species of endangered moth. In order to mitigate the threat to the moths, the airport will have to find double the acreage of undeveloped land elsewhere on the island for the moths to live on.

It's a long-term management cost that basically adds \$100,000 to the project,” Karberg said.

Karberg and Rafter are currently waiting to hear back from the state on whether or not the land mitigation can be overruled. Paying for that extra land in order to construct the solar field is not an option, Rafter said.

“Our core business is operating the airport. We are being environmentally conscious as well, but when we have two environmental things challenging each other, it's out-weighting our ability to run the airport.”

A second hurdle that the carbon-neutral project faces is in the financing aspect. Due to the airport's recent fiscal history during the years under former manager Al Peterson, the airport's risk aversion makes financing the solar field a separate obstacle in itself. With a ballpark price tag of \$6 million to complete the carbon-neutral project, the financing is a major component. The two options in financing the airport are for the town to fund it through tax-exempt bonds, or for a third-party energy savings company to pay for the project.

In the latter case, the airport would see fewer returns on its energy savings. In either case, the airport needs to come up with a cost estimate, which cannot happen until the land obstacle is sorted out.

“We can’t zone in on the exact cost without knowing what the burden of mitigation might be,” Rafter said.

With no solution to the land-mitigation problem at the moment, terminating the project at this point has become an option.

“It’s a tight enough project where that difference in rates and funding could skew the project, in which it is not economically viable,” Karberg said.

Currently, Karberg and Rafter are waiting to hear back from the state on whether the land mitigation can be sidestepped.

“Worst-case scenario, we have an investment grade audit on hand, which gives us a roadmap for any number of different energy-efficiency projects that we can pursue in the future,” Karberg said.

Sinatra, who worked with Karberg to write the grant for the carbon-neutral project, does not believe anything was lost in this endeavor if the solar field does not come to fruition.

“In the pursuit of a carbonneutral airport, the town has gained valuable knowledge of the benefits and obstacles to developing a solar facility on Nantucket, which should prove helpful as we continue to evaluate our renewable energy opportunities,” she said.