

Dover says good-bye to windmill; gets encouraging news about solar panels

by Lauren Harkawik

DOVER — It was bad news first, good news second in alternative energy discussions at the Dover School Board's Monday meeting. The bad news: a windmill installed at the school has been nonfunctional for two years. The good news: a solar array on the school's property is performing well.

The windmill, which sits above the school's playground, was originally installed in 2005 to partially offset the school's electricity costs. Principal Matt Martyn said Tom Hanlon, who originally installed the windmill, came to inspect it because Martyn was concerned about its functionality and safety.

Hanlon inspected the windmill from the ground using binoculars, and also checked the system's electronics. He identified an issue in the system's inverter, which converts power from DC to AC.

"What that means is our windmill is spending a lot of time turning, and it isn't making any power," said Martyn. "(Hanlon) thinks it hasn't been making power for at least two years."

Martyn said a used replacement inverter would cost around \$5,000, plus the cost of labor for installation. He said Hanlon estimated that the windmill could generate \$2,000 worth of energy annually if it were functioning properly.

"They said that from the beginning," said chair Rich Werner, adding that the windmill was initially quoted at as a \$6,000 investment. "Then we needed this, we needed that," said Werner. "We're up to like \$15,000 or \$18,000 we've invested in it. And (former board member) Vicki Capitani was monitoring how much we were saving and we never saved anything."

In addition to costing more than initially thought, several incidents have called into question the safety of the windmill, including loose cables in 2005 and falling blades due to an ice storm in 2007.

Martyn said he asked Hanlon what the windmill might be worth should the board decide to sell it. "He said it's probably worth about \$5,000 as a used turbine," said Martyn.

Vice chair Laura Sibilgia introduced a motion to request that Martyn dispose of the windmill for safety and cost reasons. Board member Chip Vicary quickly seconded the motion. Werner asked for discussion, and after a beat of silence from Sibilgia and Vicary, voiced his support for keeping the windmill intact.

"We've invested a lot of money, and I'd rather put the \$5,000 in for the new inverter and keep it running," said Werner. "We've got \$15,000 or \$16,000 already invested in there."

"What are we investing in?" asked Sibilgia. "Are we getting any power out of this? Plus, we continue to have this potential safety issue out there."

Werner suggested that maybe lightning had affected the inverter, and questioned whether insurance might cover the repairs if that were the case. Sibilgia asked what the likelihood may be that lightning could strike twice, and Vicary added that ice and wind also pose threats. Werner said the windmill had lived through ice storms and Tropical Storm Irene fine.

"Rich, your opinion matters a lot to me," said Sibilgia. "But have we had any years of making power without an event happening? I feel like we haven't."

Ultimately Sibilgia's motion was carried in a 2-1 vote, with two board members absent.

In sunnier news, during an annual review of the school's electrical consumption, Vicary delivered an encouraging update about the solar array at the school, which was installed last year and benefits several town accounts, including the school.

The solar array was installed by NextSun, which fronted the bill for the installation and receives 85% of the credits generated by the array. In its first year of operation, after NextSun's portion was collected, the town's net savings were around \$23,000. The school also receives a rent check for use of the school's land for the solar array, which amounts to a little over \$5,000 per year.

Vicary said that in its first year the solar array generated 810,603 kilowatt-hours, which exceeded NextSun's original estimate of 650,000 kwh. Vicary said some balancing needs to be done in terms of allotment of energy credits versus how much is used at individual locations, but by and large, the first year of operation showed encouraging results, particularly since there was no upfront cost to the town.

"So all in all, it seems like this wasn't a bad deal for us," said Werner.

"It's much better than the windmill," said Vicary.