

National Grid exploring need for third cable

Cost could approach \$100 million

By Matt Turer
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National Grid is evaluating whether Nantucket's spiraling demand for electricity will require a third undersea cable to the island, at a cost approaching \$100 million, which would ultimately be borne by the ratepayers.

National Grid senior project manager Lindsay Foley and Lauren Sinatra, energy coordinator for the Town of Nantucket, are now focusing their attention on a "non-wires alternative" project and the "Mass Save" program — efforts that will reveal whether or not enough load relief during peak hours can be created through energy efficiency initiatives to continue to push off the need for a third cable.

Placing the cable in its forecast means it will be on National Grid's radar until at least 2020, Foley said. She went on to say that planning would not start immediately and likely not until at least that five-year date. The hope is that the non-wires

project will show enough potential before and up to that date to continue to delay planning.

"We have to make a system capable of meeting the needs of a peak situation," Foley said. "Especially in an emergency where a cable goes out of service. As of 2013, what we're seeing is the peak load of Nantucket in the summer goes above the capacity of one of the cables, so if one of the two was to go down, there wouldn't be enough capacity to serve the entire island."

Nantucket's cumulative use went from 40 megawatts in 2012 to a record 45 megawatts in 2013 (a 12.5 percent increase). Usage has continued to climb since then, and National Grid has determined that Nantucket's energy rate is growing at five times the Massachusetts average.

If Nantucket's cables did reach the point of overcapacity, National Grid has six watts of backup generation available on-site for the island.

"After that, we would roll generation on in the form of twelve 18-wheeler trailers on Bunker Road and Candle Street," Foley said. "It's going to get kind of loud and people will see and hear them, but after that we can't physically connect anymore, and that's the emergency point where we start seriously looking at a third cable."

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Sinatra said the impact on the downtown district that would result from approaching the need for a third cable should act as a big motivator for residents to listen and get involved.

"These are diesel generators on trucks that will be disruptive to downtown operations and quality of life between 2 p.m. and 10 p.m., our peak summer hours," Sinatra said. "They are unsightly, noisy and emit the smell of burning diesel."

The measures involved with the non-wires project are focused around electronic devices in use during peak hours. Through energy audits, the program offers no-cost energy assessments, free LED light bulbs, subsidized insulation, a free heat-pump water heater and additional products that are all intended to reduce kilowatt hours used.

National Grid is testing these incentives on Nantucket due to the island's uniquely sensitive power situation. Benefits available to island residents aren't yet available to other National Grid ratepayers throughout the state. The island is already responding, averaging 40 LED bulbs per house — double the state average.

"These incentives are funded by energy-efficiency surcharges we already pay for in our electric bills," Sinatra said. "Nowhere else in the commonwealth can people get the unlimited LEDs, free dehumidifiers, WiFi thermostats and hybrid heat-pump water heaters that we're being offered."

Between the residential and commercial sectors, the island pays \$1.46 million per



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*— Lauren Sinatra
Town energy coordinator*

year in surcharges and is getting back just 17 percent of that (up from 11 percent in 2009). According to the energy office, additional audits will bring more savings back to the island in the form of these incentives and in energy-bill savings. Between January and June 2015, the island saved \$1 million through audits.

"The third cable is about backup and contingency, not providing power, and that's

what makes it so compelling to avoid," Sinatra said. "It's in all of our best interests. There's going to be a tremendous cost to it and will be disruptive."

The last cable — stretching 28 miles from Cape Cod at a cost of \$41 million — came to the island in 2005 to provide load relief to Nantucket's rapidly-blossoming year-round and summer population.

Summer residents present a challenge to the energy office and National Grid as well, but Sinatra said that it's a misconception that the island's massive summer homes are contributing the most to the island's peak load.

"We have to try harder to get their attention, though," Foley said. "This may not be something they think about when they come here, and we want to change that. Even if not to save money it should be to help Nantucket maintain its economic and energy prosperity."

"Even if people don't take the threat of a third cable seriously, they should still take advantage of every incentive available through this initiative," Sinatra said.

In 2015, the energy office and National Grid have performed 338 audits, just short of their initial goal of 400.

National Grid installed the original, 26-mile cable in 1996, allowing the generating plant on Candle Street in the historic district to be shut down. The island's year-round population grew significantly from 1990-2000, making the cable a necessity, officials said.

To sign up for an audit, Nantucket residents can visit www.ackenergy.org or contact the energy office at 2 Fairgrounds Road, at (508) 325-5379.