

Town gets grant to provide innovative air conditioners

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In a move to reduce Nantucket's peak energy demand, the state Department of Energy Resources (DOER) has awarded the island a \$1.5 million grant that will provide 200 high-tech, energy-efficient air conditioners to Nantucket residents for "little to no cost."

The project is part of the state's Peak Demand Management Grant Program, which aims to reduce electricity demand by providing funding for developing and testing innovative energy technologies and programs.

Ice Energy's Ice Bear 20 air conditioner acts as an alternative to traditional central air conditioning by freezing water into ice during the nighttime hours, when demand for power is low and electricity is more abundant.

During Nantucket's summer peak hours from 5-9 p.m.,

the machines use the ice to provide air conditioning instead of relying on electricity-dependent compressors found in typical air conditioners.

"What we do is we replace that (traditional) model with essentially a smart air conditioner that has storage built in," said Greg Miller, executive vice president of market development and sales for Ice Energy.

"During the day when consumers want to have air conditioning, instead of using what we call a guzzling appliance, essentially we shut that compressor off and we use the ice-cold refrigerant and we deliver that cool refrigerant to the home."

"Nantucket is an ideal location for an energy-storage project, but we're unique in that we're a tourism capital," said town energy coordinator Lauren Sinatra. "People come here, they want to be comfortable, they don't want their comfort jeopardized. This

technology will be more efficient and help to reduce the island's surging peak load, but it won't compromise their comfort or the cooling of their homes."

Demand for electricity on Nantucket is currently growing at over five times the state average, with the peak usage times summer afternoons and evenings, according to island energy provider National Grid. Because the island receives its electric services via two undersea cables originating 30 miles away on Cape Cod, National Grid forecasts a third cable will be necessary within 20 years if the demand continues to increase at its current rate, which could cost anywhere from \$75 million to \$100 million. Due to the influx of tourists visiting Nantucket during the summer months, air conditioning is an especially large part of the island's highest energy demand, Sinatra said.