

This is a printer friendly version of an article from www.fosters.com
To print this article open the file menu and choose Print.

[Back](#)

Article published Aug 13, 2012

Star Island considers solar power to meet energy demands

ISLE OF SHOALS— From the Portsmouth coastline, Star Island appears only as a raised speck along the horizon. Although the island goes unnoticed by many on the mainland, the stretch of land acts as a bustling summer community where people flock to enjoy the serenity of the rugged New England landscape, scattered with century old cottages.

Even though the second largest — and most heavily traveled — island has maintained its rustic feel, detached from the hurriedness of the modern world, a committee is looking to embrace change and install solar panels. The proposed photo voltaic (PV) units would reduce the need for the diesel-generated power the island currently uses to meet its peak summer energy demands.

"This project is really interesting because we are a microcosm of society. We supply all of our energy and wastewater needs for the island on site and we can see very quickly how one thing impacts another," Jack Farrell, facilities superintendent on Star Island, said.

Farrell also noted that because the island has so many hurdles to jump from transportation to installation on the 43-acre island, if the committee is able to install "green" energy than most mainland businesses could easily follow in their footsteps.

According to Victoria Hardy, CEO of the Star Island Corporation, the island has been interested in weaning off the fossil-fuel burning generators for a long time due to the volatile price of diesel. The island spends an average of \$80,000 to \$90,000 each year on powering the three generators, making the installation of an alternative energy source viable. Over 20 percent of the electricity is drawn from the reverse osmosis treatment plant, which converts up to 6,000 gallons of salt water to fresh for island occupants.

"We are paying 75 cents a kilowatt hour while mainland users pay 14 cents. We have a real opportunity to stabilize our energy costs while also reducing our carbon footprint, it's a great opportunity," Farrell said.

In addition to high costs of fuel, diesel transportation to the island has proved problematic throughout the years. The process requires a tremendous amount of regulatory oversight, as the fuel is pumped uphill from a barge and into a 5,000-gallon tank.

Due to the less than ideal conditions, the island committee began researching alternative energies. In 2005, committee members teamed up with a group at University of Massachusetts Amherst to determine the feasibility of wind power. The study found that although the island is exposed to turbulent wind during the winter months — calculated as high as 93 miles per hour in some areas — but not enough in the summer when demand is highest.

The committee again began seeking alternative energy solutions in April 2011, this time working closely with Rockland Maine Island institute — a company geared specifically toward island

communities, energy, education and livelihoods of small islands. The study found solar panels were the most feasible option.

A zoning committee has agreed the panels should be placed on the southernmost slopes of the island.

"The panels will be tucked into a ridge of granite, angled to harness the maximum amount of energy while daily visitors will be unable to see the units," Hardy said.

The projected startups costs for the panels are proposed to range from \$1.5 to \$2.5 million.

"We are spending enough money on energy costs now that although the initial start up costs are high, we expect it to be an excellent investment for the future," Hardy said.

Although the panels almost entirely replace the fossil fuel run system, the island would continue to keep one generator as a back up in case of a bad spat of weather.

"The island experiences harsh weather conditions and we have a back up system for everything in case something shuts down, we are still able to provide energy for guests," Hardy said.

Although progress was made, committee members are unsure when the solar panels will be installed. The board recently sent a request for qualification (RFQ) to New-England based companies to be considered for the design, construction and operation of the PV array.

Farrell hopes that the board will choose a company from the solar industry by September.

"It is not a fast process, but we are hoping that certainly within three to four years that we will be effectively carbon neutral. It's a real visionary project that we are excited about," Hardy said.

While Star Island has escaped many of modern day conveniences, with hotel guests continuing to fill pitchers full of hot water to their upstairs rooms and no television access — the installation of panels would catapult the sea-bound land into the future more than most mainland businesses.

"We have been here for a hundred years and we plan on being here for at least another hundred," Hardy said.
