

newsday.com/news/printedition/longisland/ny-lisola045788797aug04,0,6700947.story

Newsday.com

Roosevelt Habitat for Humanity home goes solar

BY JOSH SEIDMAN

joshua.seidman@newsday.com

August 4, 2008

Under a blistering summer sun, more than two dozen volunteers ranging in age from 13 to 77 worked to harness some of its valuable rays in Roosevelt yesterday by installing 18 solar panels on Francis Brown's newly built Habitat for Humanity home.

"It's inexpensive for me as a single parent," Brown said of the 3-by-5-foot panels. "And it's helping to preserve the environment." Brown, a legal secretary, will live in the home with her two teenage children.

When completed this fall, Brown's one-story ranch-style home will be the first green home built by Habitat for Humanity in Nassau County, said Tom Baccarella, Habitat for Humanity's construction manager for Nassau County.

"Our goal was to make an energy-efficient house using volunteers," Baccarella said. "If we can make this house green there's no reason that anybody can't do it to their home."

Because of a shortage of affordable land in Nassau County, Habitat has built an average of one new home per year in the area over the last decade, Baccarella said. For this project, Habitat aligned itself with several local energy providers and organizations, including LIPA and the Long Island Solar Energy Industries Association, he said.

Volunteers from Habitat and seven local solar contractors helped set up the solar panels, said Kevin Macleod, Long Island Solar Energy's chairman. "You develop a passion as a solar contractor because you're actually doing a job that's serving the environment and saving the planet," Macleod said.

In addition to the solar panels, which are a part of a system that converts sunlight into electricity, the house is being built with a radiant barrier on the ceiling, a condensing boiler and an air-sealed wooden framing. Each of these methods is used to regulate the temperature in the home and further reduce its energy costs, Baccarella said. "It's important to combine the solar panels with the insulation," said Lianne Altmann, LIPA's director of residential programs. "You can't have one without the other and be fully efficient."

LIPA, which has been rebating homeowners for using solar panels for the last decade as a part of it's



Solar Pioneers Program, cut the cost of installing the solar panels on Brown's home in half, to about \$13,500, Altmann said. The panels were donated by Empire Clean Energy, a Bohemia-based solar energy product supplier.

HARVESTING SUNLIGHT FOR ELECTRICITY

Solar cells, which are the basic building block for technology that harnesses solar power, are wired together to create a system of solar panels.

Inside the solar panel lies a positive and negative plate. When the negative plate is placed at the proper angle to the sunlight, photons bombard it, causing the release of electrons.

As the panels receive more sunlight, more electrons are released. This results in the production of electricity.

The electricity that is produced is direct current. To convert DC power to alternating current power, the type of electricity used in your home, a device called an inverter is used.

- JOSH SEIDMAN

Sources: LIPA and Empire Clean Energy

Copyright © 2008, [Newsday Inc.](#)