Marine base to house largest solar-powered residential community in U.S.

May 21 2010, By Martha Quillin

For young Marines at Camp Lejeune, green isn't just the color of uniforms anymore. On Thursday, the base celebrated its status as the site of what will be the largest solar-thermal-powered residential community in the continental United States.

By using solar thermal power to heat water for 900 homes, the project is expected to prevent the release of 1,035 tons of carbon dioxide into the air each year, the equivalent of taking 255 cars off the road, according to the company that developed it. Ultimately, thousands of homes on the Onslow County base and at other military installations could have similar systems.

FLS Energy, a solar power specialty company based in Asheville, N.C., has begun installation of the systems on new and existing homes at Lejeune. On Thursday, Gov. Bev Perdue visited one home in the Tarawa Terrace II subdivision where the solar system was put in just over a week ago.

"This is really a big deal for North Carolina and America," she told media gathered for the tour. "You don't often in life have a chance to watch some big change happen."

Just as the military has, in the past, made those in its ranks change their behaviors about race, drug abuse or domestic violence, it will now be able to change the way its young recruits treat the earth itself.

The families who occupy these houses, Perdue said, will live their lives as environmental stewards, "because the Marine Corps has said they will."

Sgt. Kirk Paulson and his wife, Jamie, who let Perdue peer into their utility closet at their 40-gallon water heater, are glad to be part of the project.

"I'm kind of excited about it," Jamie Paulson said. "I think it's a great move forward."

It might not be as easy if the couple weren't living in base housing.

The 10-by-4-foot solar panels perched on the roofs of the homes at Tarawa Terrace and the hardware that connects them to the water heater inside cost about $7,000.

These are being paid for through a complex financing arrangement through which FLS borrows money from Bank of America. The bank gets to use state and federal tax credits that come with solar power, and FLS earns income from the systems by selling the kilowatt hours they produce to Duke Energy, which pays for them at a reduced rate compared to electrical kilowatt hours.

And the company that runs base housing gets a break on its electricity bills.

"Everybody wins," said Brownie Newman, director of project financing for FLS.

For now, the company is mostly involved in large-scale projects on properties that won't change hands before the solar systems have paid for themselves.

The systems being installed at Lejeune should be able to produce about 75 percent of the hot water an average house uses in a year, Newman said.

After heating and cooling the living space, heating water is the third-largest use of electricity in most homes, he said.

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