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One Man's Solar Experience Illustrates Emerging Need



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WITH THE HELP OF MICHAEL BROWN, left, Pat Eckert is now generating power for his Frostproof house from 30 solar panels.

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By **Rachel Pleasant**
POLK COUNTY BUSINESS JOURNAL

FROSTPROOF | Frostproof resident Pat Eckert strives for self-sufficiency. He doesn't call himself a tree-hugger or extremely "green." He just doesn't see the point in paying for something he can get - or do - himself.



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MICHAEL BROWN OF SOLAR-RAY checks meters on Pat Eckert's solar system.

In his quest for self sufficiency, Eckert, 59, a former forest ranger, grows his own vegetables and raises cows and pigs, all on five acres at 1950 W. Frostproof Road. The water Eckert and his wife, Miekko, use is heated by a solar water heater on their roof. Insulation keeps their home comfortable; Eckert rarely uses heating or air conditioning and "it was 66 in here during the freeze," he said. Ceramic tile also helps keep the home cool during the brutal summer months.

So, for a man who has already taken such strides toward living off what comes straight from nature, the next logical step in Eckert's pursuit of self-sufficiency was to have 30 solar panels installed beside his home.

The panels, installed by Kissimmee-based Danbar Electrical Contracting at the end of 2007 and completed in January, cost Eckert \$48,000. He's already received a \$3,200 rebate from the federal government to help offset the cost and he's waiting on \$20,500 in rebates from the state. The panels sit on a rack Eckert built in a cleared portion of his property, where there are no trees or brush to obstruct the sun's rays.



It is Eckert's hope that the panels will generate enough energy to power his 1,300-square-foot home, or at least make a big dent in his power bill from Progress Energy.

But he also hopes that nothing ever happens to Michael Brown, the man who consulted on the installation and would come to the rescue if there were ever a problem he couldn't fix himself.

"What happens if he dies," Eckert said.



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MICHAEL BROWN

Brown, 40, grew up in New Mexico, where he witnessed the use of the sun's power.

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Pat Eckert monitors equipment in a building he built for his solar system.

"There are these big mechanical pumps to pump water throughout the whole West," he said. "And when one of them goes bad, they first get a generator. But there's a huge cost and time expenditure with that, so a majority then go to solar power."

Brown, president of Orlando-based Solar-Ray, said he got his associate's degree from Valencia Community College and then headed to the University of Central Florida to study social work in 1992.

"But I had to pay the bills," he said. "Social services was not going to pay them."

So Brown went into construction, a field he found steady and able to pay those mounting bills. (The Florida Department of Business and Professional Regulation shows his certified general contractor status as "eligible for exam," meaning he's been approved for the exam portion of the licensure process.)

Five years ago he said he was working on a house for a relative who wanted to use solar power. Brown had a heck of a time finding anyone who sold the necessary equipment. Figuring that solar energy was an area sure to gain more attention over time, Brown refocused his efforts. So was born Solar-Ray.

Brown is a certified photovoltaic installer through the North American Board of Certified Energy Practitioners; he is one of four NABCEP-certified installers in Florida, according to www.nabcep.org, none of whom are based in Polk County. The Florida Solar Industries Association lists a handful of solar contractors and manufacturers that serve Polk.

Brown spends his days working with installation contractors and servicing and consulting existing customers. He also spends much of his time consulting and educating those interested in learning about energy consumption and efficiency.

His company, which he incorporated in 2003, experienced 200 percent growth in the first year and 130 percent growth in 2007.

"The interest is high here. There are a lot of retired smart people here," he said.

Regarding Eckert's comment about fearing that anything will ever happen to Brown, Brown agrees that there is a growing need for those who can install and maintain systems such as Eckert's.

"We need to include these in tech energy programs," he said.

EMERGING NEED?

At Lakeland Electric, Jeff Curry, alternative energy coordinator, said he's noticed an increased interest in solar power.

"I used to get calls about it once every three months," he said. "Now it's once a week. We're definitely getting demand from residential and commercial customers."

As solar - and other forms of renewable energy - receive increased attention from those wanting to save money and the environment, the question becomes what Polk can do to train workers for solar systems, putting the county in a position to embrace emerging technology. What can Polk do to keep others like Eckert from worrying about what they'll do if something were to happen to their solar power contact?

As it turns out, there are a couple of things in the works to address this emerging need.

At Tenoroc High School, slated to open this August at 4905 Saddle Creek Road in Lakeland, the Lakeland Electric Power Academy will include solar power in its curriculum, said John Small, senior director of workforce education for the Polk County School District.

The program has received \$100,000 in grants and "what we anticipate is the creation of a solar grid that the students would use to generate their own power," Small said.

"We're just putting this academy together right now," Small said. "The curriculum will be broad-based. We'd like students that have an interest in that to have the option of going directly to work in the power industry. Or we might feed that spark to get them into engineering, higher science and math."

At PCC's Corporate College, solar was recently discussed as a possible addition to curriculum.

"The door's been cracked open," said Rich Thompson, coordinator of business development.

At a recent roundtable discussion that included engineers, architects and construction representatives, the "green" issue came up as a field where jobs are available, including in solar energy.

The next step will be a larger discussion in the summer. If the Corporate College chooses to implement curriculum including solar power, it can be done in less than a year, Thompson said.

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