

There's money to be saved in solar

February 17 2009, Josh Salman

A series of solar panels on the roof converts the sun's rays to electricity, the electricity then flows through cables to the circuit breaker, where it's consumed in the building. The result -- a reduction in energy costs.

Solar energy solutions are becoming increasingly common in Florida, with residents and businesses using solar power for both financial and environmental reasons. The recent extension in tax incentives is likely to further the trend of "going green."

"We're seeing prices become extremely competitive and more in line with what people want," said Andrew Rasken, owner of Bam Solar Power, a Jacksonville-based solar installation company. "It's an investment offering a fixed cost of energy over 20 years, and people are starting to notice."

Since JEA began offering solar rebates in 2002, the number of customers using solar energy has increased 30 percent. In 2008, 63 customers were rebated for installing a solar system.

A typical solar-panel electric system produces up to 30 percent of an average building's electrical needs and can cut monthly electric bills by about 30 percent, according to JEA.

With the recent extension in tax incentives, the savings can add up.

Consumers who spend at least \$5,000 on a solar-based electric system are now eligible to receive an uncapped 30 percent federal tax credit, a

\$4-per-watt rebate from the state and an \$800 fixed rebate from JEA, returning the investment in about six to seven years, Rasken said.

Florida also offers a \$500 fixed rebate for homeowners who install solar water heaters.

The average residential solar electric system costs from \$20,000 to 40,000 for about 3 kilowatts of power, Rasken said.

Each kilowatt of power can produce 150 kilowatt-hours of energy per month.

So if someone uses 1,000 kilowatt-hours of energy each month, a 3-kilowatt solar electric system would compensate for 450 of those hours, or 45 percent of the electrical bill.

"Every home is different and its own challenge, but our goal is to offset at least 20 percent from the monthly energy bill," Rasken said.

The Dana B. Kenyon Co., a solar-panel installation company that focuses solely on commercial installation, has seen an increase in businesses wanting to add solar to their buildings to reduce operating costs. These remodels account for the majority of the company's sales, chief executive Matthew Kenyon said.

The company recently designed and built the First Coast's largest private solar electric roof system for its office on Timuquana Road.

The 26-kilowatt system had a retail price tag of \$240,000, but after tax credits and incentives were applied, it cost the company only \$40,000, taking into account a \$10-per-watt installation cost, Kenyon said.

Costs continue to fall as more manufactures enter the industry, he said.

"The economics of it are beginning to make more and more sense," Kenyon said. "With the improvements in technology, the costs of solar continues to decrease, while electric prices continue to rise."

The savings increase with the size of the system, but the use of solar energy can still save the average homeowner hundreds of dollars a year, said Brian Pippin, conservation coordinator for JEA.

The incentives also are projected to create an additional 22,000 solar-related jobs in Florida within eight years, according to an industry-paid study by Navigant Consulting Inc., a consulting firm specializing in energy.

"In the past couple of years, we've seen an increase in calls from interested customers, and we've about doubled the number of approved solar vendors," Pippin said. "For a while, the business case was not there; now it's an industry that's growing."

But it's not immune to the effects of a declining economy.

While the use of solar in Florida had been growing during the past six years, vendors agree sales have plateaued.

A large number of homeowners and businesses rely on financing for solar investments, and with the credit markets tightening, less interested consumers are getting approved, Rasken said.

And although a solar energy system can reduce monthly expenses, people have been more cautious of their spending and less willing to make a large investment, he said.

"The market has definitely presented us with a lot of challenges," Rasken said.

Rasken hopes future increases in incentives will make consumers more inclined to make the switch, he said.

The advantages of solar energy systems go beyond money.

During the 30-year projected life of the system, the energy saved from the Kenyon Co.'s solar roof is equivalent to offsetting the annual greenhouse emissions of 162 cars and the carbon dioxide emissions of 100,380 gallons of gas, 2,058 barrels of oil and 11.7 tanker trucks of gasoline, Kenyon said.

"It's the right thing to do," he said. "In this recent energy crisis, we wanted to do our part to reduce our reliance on foreign fossil fuels. And people tend to feel good about helping the environment, which is a big tangible."

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