

# ENERGY 2010

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## Government incentives making solar panels viable option in county

By Ed Biller  
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ADAMS TWP — Thanks to government incentives rewarding green energy users, Butler County has what may be its first solar-powered home.

In August, Pat Gallagher of Mars installed 42 three-by-five-foot solar panels to the roof of his home, which he says can supply about 65 to 70 percent of his current electricity needs.

"I had been looking into it for about 4 or 5 years," Gallagher said.

"My house faced south, which is an ideal orientation for it, but the incentives were never in place from the state or federal government, and it was a very expensive option."

However, in recent years programs such as the Pennsylvania Solar Sunshine Grant, implemented in 2008, and a 30 percent tax credit provided by the federal government have combined to reduce the cost of solar equipment for homeowners and small businesses.

A third mechanism also reduces the cost. Pennsylvania requires that 18 percent of all energy generated in the state come from alternative and renewable sources by 2021, including 0.5 percent from solar.

Utilities buy environmental credits, called renewable energy certificates, on the open market and are credited with the purchase of renewable energy.

"The companies take that money and reduce the cost of equip for homeowners," Gallagher said.

His solar panels do not store energy in a battery. The power is used immediately or fed back into the electric company's grid, validating its energy certificate.

The process of using renewable energy starts with researching a provider.

Gallagher contracted Astrum Solar, based in Annapolis Junction, Md.

"If you're still interested after you see the price, you get a consultation after. Then the company will conduct a site survey," Gallagher said.

The site survey consist of measuring the roof and using a solar metric device to gauge how much energy solar panels could produce throughout year, taking into account weather and shade.

"You've got to have at least 80 percent solar access. Once you have that, it's a matter of how much room you have up there and how many panels you can fit on your roof," Gallagher said.

Also, a building permit is required to add solar panels, and a certified electrician must approve the project.

Gallagher said the average solar system produces about 5 KW, and retails, with installation, for about \$32,000. Grants can cut that cost by up to

**S**olar panels are up to 25 percent more efficient in the shade compared to panels produced two years ago, meaning you see pay-back on your investment in five to seven years instead of 10 to 12.

Adam Dilts,  
Zelienople-based Dilts Enterprises

70 percent.

"In addition to the savings you get from the incentives, pure electrical savings are 40 to 90 percent."

Gallagher said maintenance is a breeze, too, as rain and wind will clear dust and pollen off the panels. Snow and ice melts off, even in large amounts, Gallagher said, because the panels are black and warm up with the sun, even through overnight snowfall.

Furthermore, solar systems are low maintenance, since they have no moving parts.



Pat Gallagher installed solar panels on the roof of his Gibsonia home.

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