Couple turns to solar panels to cut spending in long run

By ALISSA EATON - aeaton@sungazette.com
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Because of the removal of electric rate caps, the Bakers, a Montoursville couple, made a big decision to help the environment and eventually their wallets.

Last week, the Montoursville couple had 28 solar panels, or a 5 KiloWatt solar electric photovoltaic system, installed on their roof, by K.C. Larson, a Williamsport mechanical and electrical contractor.

Photovoltaics, or PV, is a technology that converts light directly into electricity.

PV panels are usually mounted on the roof and connected to the local electric utility to supply power directly to a home or business. PV panels also have the capability to send unused power back to the utility.

The Baker's system's average output will be about 600 Kilo Watt Hours per month, which is a little less than the typical family uses.

A typical house in the U.S. uses 10,000 to 12,000 Kilo Watt Hours per year, according to Keevin C. Larson Sr., president of the company.

"We find that the number of household members and square foot of the house is not always directly proportional to an increase or decrease value of KWH used per year," Larson said. "It seems to depend on the type of house, the electrical systems that support the house and how the family members use their daily electricity."

The Bakers made the decision at the beginning of the year to install the PV system because they knew the electric rate caps were coming off and would increase their electric bills.

Everything in the Baker household, except the hot water heater runs on electricity, so the couple is looking to lower their electric bills.

"It's going to cost us," Ron Baker said. "But in the long run I think it will pay us."

When it comes to costs, a rough approximate would be about $9 to $10 per watt of output fully installed, Larson said.

"A typical system could have 10 PV panels at 180 watts each and this would be about 1.8 kilo watts which would then approximately cost $16,200 to $18,000," Larson said. "In the PV industry - the larger the system is - the less the cost per watt would be fully installed."

The Bakers' system will be the largest one of its kind in the area and is actually expandable.

Ron Baker said he hopes the system will eventually pay him and his wife back, because a meter can actually put the electricity back into the PPL power system, when it makes more than the couple needs.

With the Bakers installing the panels, it shows the process is becoming affordable for everyday people. "The government is coming up with more grants and incentives for the average person to do this for their home," Jamie Sherman, marketing director, for K.C. Larson said.

Baker said he and his wife really thought about what they wanted to do to save money of their electricity costs.

"The maintenance for the system isn't too bad," Baker said. "We have to wash them off and keep them clean just like windows."

In the future, the Bakers are thinking about installing a solar water heater, which could cut their electric bills even more, up to 70 percent, he said.

A hot water solar panel uses the sun's energy to heat water, or another type of liquid, K.C. Larson's Web site said. The water is used to transfer the heat to a heat storage vessel, such as a hot water tank.

A solar thermal panel system has a payback of 5 to 7 years, according to Larson, "This system can also supplement a building's primary heating system by piping solar heated hot water through an in-floor radiant heating system."

The solar thermal panel systems can stand alone without a PV system and at present those systems are very popular due to the high cost of fuel, oil and propane, Larson said.