

Federal courthouse shining example of solar benefits

By Matt Fair, Staff Writer
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TRENTON – With a new set of solar panels laid out on its roof to provide electricity and hot water, the Clarkson S. Fisher Federal Courthouse on East State Street is letting the sunshine in.

Operated by the federal General Services Administration (GSA), officials there said they wanted to see the United States government become a leader in “green” technology and alternative energy.

“GSA is one of the largest owners and operators of building space in the world,” said Gina Gilliam, a regional GSA spokeswoman. “With a footprint of this magnitude, it is important for the federal government to raise the baseline and set the trend for buildings nationwide and help encourage eco-friendly alternatives both large and small.”

It’s a goal that, in this case, finds the government in partnership with a homegrown New Jersey based business, the Paterson-based Pfister Energy, a renewable energy systems company.

Pfister Energy, a division of Pfister Industries, founded in 2005, was awarded a contract now worth a total of nearly \$279,000 in February 2009 for the installation of the system.

The installation of a Building Integrated Photovoltaic (VICP) system cost \$204,914, while about \$74,000 was used to install a solar-powered hot water system.

“They’ve invested a lot of money into these technologies,” said Wayne Pfisterer, president of Pfister Energy. “When they need a new roof on a building, they’re really required now to look at whatever renewable or energy efficient technologies are available.”

According to Gilliam, the building will derive about 3 percent of its total electricity from the system, with another 5 percent coming from a previous photovoltaic project on the site. Meanwhile, all of the building’s hot water will be provided by the solar thermal installation.

And while roof-mounted, glass-paned panels angled south toward the sun may spring to mind when we think of solar energy, these aren’t your mother’s solar panels. Described as “thin-film photovoltaics,” the panels are unrolled and laid flat on the building’s roof.

“Essentially, photovoltaics have glass panels placed on a degree facing south, those are the more traditional products out there,” Pfisterer said.

“Thin-film photovoltaics get integrated as part of the roofing system themselves,” he added. “When we install the roof, you not only get a roof that will protect the buildings from the elements, you will also have the photovoltaics that will generate electricity for the building.”

Pfisterer added that, unlike traditional solar panels, the thin-film design are also capable of collecting light at low angles so that electricity is generated even in low-light conditions at dusk and dawn, helpful especially during the winter months when there are fewer hours of daylight.

“It’s a different technology,” Pfisterer added. “It has the ability to harvest light at a more efficient rate.”

He added that the systems are designed to last for approximately 25-30 years with very little maintenance.

The electricity-generating roof panels came online several months ago, Pfisterer said, while the solar-thermal water system is expecting to come online within the next week.

The six-story, steel-frame courthouse on East State Street was originally built in 1932.

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