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Let the sun shine in

GRETCHEN METZ , Staff Writer

EAST WHITELAND - Siemens Medical Solutions is looking to the skies for a higher power.

The world's biggest supplier to the health care industry is installing one of the largest photovoltaic, or solar, energy systems in Pennsylvania with the help of a \$415,000 grant from the state's Energy Development Authority.

When it is completely installed on its roof and the switch thrown, the 100-kilowatt system will generate approximately 125,000 kilowatt hours for Siemens annually.

That is enough electricity to power all appliances, electronics, lighting and related household needs for 30 homes for one year, according to the Energy Information Administration.

"The state grant covers about one-third of the costs of the system," said Lane Keyser, Siemens' facility analyst. "The grant made the system feasible."

Without the grant, the system would not have been able to pay back the investment, he explained.

Siemens is one of 25 recipients of grants totaling \$8.5 million from the authority.

The grants were given to pursue clean energy projects like solar, biomass, waste coal and recycled energy throughout the commonwealth. Projects were evaluated on a variety of criteria, including their ability to promote Pennsylvania's indigenous energy resources, encourage energy diversity, and enhance energy security.

Installation began this week. Planning began three years ago, said Keyser of East Vincent, a 25-year company employee.

The system utilizes solar panels installed at a 25-degree tilt facing south, which generates 15 percent more electricity annually than flat solar panels.

Keyser said there is no battery, no storage, just an inverter that takes the solar energy and converts it to electrical power.

"Just turn the switch on and walk away," Keyser said. "When the sun shines brighter, then there's the most savings."

On average, Siemens' massive corporate campus in the Great Valley Corporate Center generates a \$250,000 electric bill each month, Keyser said. The system could power about 11 floors while the sun is shining.

"The energy savings for Siemens is estimated to average \$14,000 to \$16,000 per year for the next 25 to 30 years," said Kevin Matthews, the senior facilities manager at Siemens who led the companywide initiative to obtain the grant.

But Siemens officials are quick to point out the system saves more than money.

Over the system's 30-year lifespan, Siemens expects it to provide the equivalent environmental benefit of planting 5,057 trees or reducing the total number of vehicle miles driven by 7.6 million, Matthews said.

Union Electrical Contracting of Ft. Washington installed the solar panels. SolarDock of McConnell Energy Solutions in Wilmington, Del., manufactured the panels.

At present, renewable energy only makes up about 7 percent of the energy used in the U.S.

Gov. Edward Rendell, meanwhile, wants to put Pennsylvania out front. Pennsylvania's clean energy law mandates some 700 megawatts of electricity be generated from solar photovoltaics by 2020, the second-largest solar requirement in the country.

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"This project seeks to explore the use of this technology to supply part of the electricity needs of Siemens' Malvern campus, reducing our overall demand for electricity at times of peak use. This will help relieve constraints on the local and regional electricity grid," said Heinrich Kolem, president of Siemens Medical Solutions in the USA.

"We are confident that by installing this new energy system, we will help improve regional air quality, demonstrate new power technology to the community, reduce congestion on the utility grid, and stimulate job and industry growth."

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