

SOLAR ENERGY

New Jersey Schools, Colleges and Universities Are Going Solar to Satisfy Their Energy Needs

Elevated solar arrays are located in WPU parking areas such as Lot 1, Lot 6, a portion of Lot 5, the Power Art Center parking lot and the extended parking lot at 1600 Valley Road.

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THE ECONOMIC AND ENVIRONMENTAL BENEFITS of installing solar panels on school buildings and on elevated solar arrays over parking areas is a growing trend in New Jersey. From public schools to colleges to universities, solar power is beginning to win a place in the future and, at same time, is already making an impact on the power generation process of the present. Two good examples are William Paterson University's on-campus solar energy facility and PSE&G's solar partnership with Newark Public Schools.

William Paterson University to Save \$4.3 Million Thanks to On-Campus Solar Energy Facility

William Paterson University (WPU) has a solar energy installation on its campus in Wayne that is the largest solar facility at a university in the nation. It is expected to save millions of dollars in energy costs for WPU while supplying 15 percent to 20 percent of the institution's energy needs.

The WPU solar installation will be capable of supplying 3.5 megawatts of clean, low-cost energy. The first 3-megawatt phase has been completed; a second 500-kilowatt phase is scheduled to go online in 2011.

"This project will enable us to save an estimated \$4.3 million in energy costs over the next 15 years, while also reducing our carbon footprint," says Stephen Bolyai, WPU's vice president for administration and finance. "We are pleased to have formulated a public-private partnership to develop this project, with no capital costs to the University."

The project was developed through a public-private partnership between WPU, Nautilus Solar Energy, LLC, a leading independent solar power producer, and SunDurance Energy, a New Jersey-based solar power system integrator. Nautilus Solar financed, and will own and operate the facility under a 15-year power purchase

agreement. WPU will buy the solar power at a reduced rate with no upfront costs.

"One key concept that has led to the success of this project is the public and private partnership, without which this project would not have been completed," says James Rice, CEO of Nautilus Solar.

SunDurance Energy designed and built the project, which includes arrays covering some parking areas and photovoltaic cells on the roofs of some of the university's buildings. Elevated solar arrays are located in Lot 1, Lot 6, a portion of Lot 5, the Power Art Center parking lot, and the extended parking lot at 1600 Valley Road. Solar panels are located on the Power Art Center, the upper roof of the Recreation Center, Wayne Hall and on top of the University Commons Ballroom.

"The solar parking lot canopies that we designed and installed at William Paterson University offer a unique solution to limited ground and rooftop space," says Al Bucknam, CEO of SunDurance Energy. "We're proud to have delivered an efficient system that is going to save the university millions of dollars in energy costs."

PSE&G and Newark Public Schools Partner on Four Solar Systems for City Schools

Public Service Electric and Gas Company (PSE&G) and the Newark Public Schools are cooperating on four solar systems with a total capacity of 2.6 megawatts (MW), enough to power about 400 average-sized homes.

Installations—which are already supplying electricity to the power grid—are complete at Barringer High School, Central High School, Park Elementary School, Camden Middle School and Camden Elementary School. Rooftop systems have been installed at all the schools, while Camden Elementary, Camden Middle and Park Elementary will also have solar panels installed over the parking lot.



PSE&G will own and operate the Newark Schools' solar systems and PSE&G will utilize the energy produced, the tax credits realized under federal rules and the value of the Solar Renewable Energy Certificates (SRECs) generated by the solar systems to offset the cost of the program.

These systems are part of PSE&G's Solar 4 All™ program, which will bring 80 megawatts (MWs) of solar capacity to New Jersey by 2013. This program allows PSE&G to install, own and operate 5 megawatts of solar on any public or private third-party host site located in Urban Enterprise Zones (UEZ) in the utility's electric service territory.

The utility and the school system are also teaming up to create a Green Energy Education Program that will help prepare Newark high school students for careers in the green energy field. This educational program will provide students with an understanding of the evolving technologies that drive renewable energy and will prepare them for jobs in the developing clean energy economy. The program's first classes are expected to begin in 2011.

Beginning in 2012, the program will include summer clean energy jobs and other career development opportunities for high school juniors and seniors.