

Sun will help power nine Portland schools

by Kimberly Melton, The Oregonian

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Faith Cathcart/The Oregonian/Filiberto Olvero, (from left)

Dan Dyke, Matt Little, and Alanso Amezcuita will lay about 11,000 square feet of solar panels at Pioneer-Columbia School in North Portland. The panels will provide about 15 percent of the building's energy needs. Other Portland Public Schools receiving solar panels include Woodstock, Creston, Roseway Heights, Lane, Atkinson, Lent, Scott and Jackson.

It was harmonic convergence: During one of the hottest weeks in Portland's recorded weather history, workers labored under the blazing sun to harness solar energy at Woodstock Elementary School.

Workers are replacing parts of the roof that were old, rotten or leaking. They're also laying down thin sheets of solar film panels. The same scene is playing out at eight other Portland Public Schools buildings this month.

The district, in partnership with a private investor and more than a dozen management, construction and energy companies, is trying to complete the largest K-12-based solar panel project in the state to date.

By September, the district expects to have replaced a half-million square feet of roofs and added 175,000 square feet of solar panels at the schools. The total size of the solar array is 757 kilowatts. The energy produced from the new panels annually is expected to support, on average, 18 percent of the energy needs for the schools involved. That energy could also power 75 single family homes for one year.

Portland wouldn't have added the solar panels without the financial support of a third-party investor, district officials said. Gerding Edlen Sustainable Solutions, an offshoot of the Portland-based developer, helped the district secure an investor to pay about \$6 million for the installation of the panels.

Christina Skellenger, project manager from Gerding Edlen, said the local investor, SRI Investment LLC, will make a return on the investment through federal and state business energy tax credits. In six to eight years, the district could take over ownership of the panels. Until then, it will pay for the energy produced. Over the next 20 years, district officials estimate the panels could create energy savings of \$1 million.

The panels won't be noticeable from the street. They lay flat like a sheet of paper on the surface of the roof. This style of solar panel starts working at sunrise and doesn't need direct sunlight.

Skellenger said the approach was more cost-effective, less invasive and a deterrent to vandalism. No one can hit them with rocks or spray paint them.

In Portland and in districts such as Beaverton and Gladstone, school board members and school district officials say sustainability and green building principles are central to any new construction and renovation of school buildings.

"We think it's the right thing to do," said Portland School Board member David Wynde. "Being sensitive to our carbon footprint is what we should do protect the earth going forward. And the economics make sense."

This summer's project is part of Portland's larger effort to modernize its buildings. The district borrowed \$25 million against its reserves to begin some of the more urgent projects.

About half of the money is going to complete the roofing project. The schools will also have educational kiosks in the building, funded by Portland General Electric and Pacific Power, where students can learn about the solar panels and solar energy.

The Gladstone School District also plans to open a new wing for its high school this fall and ultimately plans to have 250 kilowatt solar array atop the new addition.

But John Kinden, Gladstone's director of finance and operations, said the project is about a year behind schedule as the district continues work to find the right tax partner and solar company to work with.

Kinden hopes to develop a consortium among school districts in Clackamas County to improve the districts' ability to work with business partners and get competitive rates for solar projects.

In Beaverton, district staff are exploring ways to add solar to four school buildings next summer.

Dick Steinbrugge, executive administrator for facilities, and others from Beaverton, toured Portland's Woodstock Elementary School last week.

"We're out there trying to get smarter about what's new and how these technologies might fit for us," Steinbrugge said. "We wanted to go out and take a look at that installation in Portland. There's no substitute for seeing in person. We're trying to learn how to do it ourselves."

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