Oregon Stimulus Funds at Work:

Southern OR

Schools: .....Southern Oregon
Project Types:.....Lights, boilers
Stimulus Funds: ...$210,283
Savings/yr: $54,111

Three small school districts reap energy savings

Oregon's public schools are in a financial crisis. The Oregon Department of Energy provided more than $11 million in stimulus funds (American Recovery and Reinvestment Act) to 60 school districts throughout the state for energy projects. Phoenix-Talent, received a stimulus grant for $45,203 through the State Energy Program from the Oregon Department of Energy to install energy-efficient lights in the gymnasiums of two elementary schools, a middle school and high school. Grants Pass School District and Rogue River School District each replaced boilers for more energy efficient natural gas condensing boilers at considerable energy savings. Following are their stories.

Phoenix-Talent School District

When Phoenix-Talent School District replaced the old metal halide lights with new energy efficient T-8 fluorescents lights in the Phoenix High gym in the summer of 2010, a problem arose that no one had anticipated.

Under the bright new lights, the Phoenix High "pirate" logo on the middle of the gym floor had lost its original luster. The pirate had seen better days.

Steve Horvath, Director of Maintenance and Safety for the Phoenix-Talent School District, was concerned and decided to check out the cost of having the logo repainted before the start of school.

"The bid was $6,000!" Horvath said. "I knew that amount was not in the maintenance budget."

Horvath had some experience painting cars and decided a flat gym floor couldn't be any more difficult than a rounded car body. Besides, he had the help of his nine-year-old daughter, Delaney, a budding artist. With a little resourcefulness and skill, the two were able to restore the fierce looking pirate to its original glory.

Phoenix-Talent replaced gym lights at Phoenix Elementary, Talent Elementary, and Talent Middle School in addition to Phoenix High School. The Oregon Department of Energy awarded the $45,203 lighting grant in March 2010 as part of its State Energy Program funded by stimulus funds (American Recovery and Reinvestment Act). The school district completed the gym lighting retrofit projects in June 2010.

In addition to the increased visibility the new lights provide in the school gyms, Horvath sees other benefits.

"It's much quieter now," he said. "The old lights buzzed and were noisy."

The new lights can be turned off and on much more efficiently. The old lights took awhile to warm up. Maintenance staff will spend less

These projects would not have been done without stimulus funds

Steve Horvath, right, Phoenix-Talent School District, shows Shanda Shribbs, Oregon Dept. of Energy, the bright new lights at Phoenix High School gym.

OREGON DEPARTMENT OF ENERGY

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time changing light bulbs as the T-8 fluorescent bulbs last much longer.

Shanda Shribbs, left, Oregon Dept. of Energy project manager, reviews reimbursements for the Phoenix-Talent energy award with Matt Price, district accounting department.

Best of all, the new lights will reduce electricity use. The four gym lighting project is expected to save $3,015 per year in costs and, the project came in under budget at $45,203.

"The new lights are great," said Horvath. "They are nice on the eyes."

And, now you can see the fierce Phoenix High pirate from anywhere in the stands.

Rogue River School District

The 1975 steam boiler had to work very hard to heat the building for the 400 students and teachers at Rogue River High School in Jackson County.

"It would heat water to 212°F to make steam and then cool the steam to 170°F," explained James Charleboix Jr., Rogue River School District Maintenance Supervisor for the past 10 years. "It was very inefficient."

When the school's boiler contractor, Western Burner of Ashland, contacted Charleboix about an opportunity to apply for some stimulus funds (American Recovery and Reinvestment Act) to replace the old boiler, he didn't hesitate.

"I filled out the application myself," Charleboix said. The Oregon Department of Energy issued the request for proposal to public entities with "shovel ready" energy projects that achieved energy savings of 10 MMBtus per $1,000 of cost.

Rogue River School District's boiler replacement project met the grant requirements and was selected. The Oregon Department of Energy awarded the District $66,080 and also contracted with Lisa Marston of Rogue Valley Council of Governments to assist the school district with the paperwork.

Rogue River Maintenance Supervisor James Charleboix, center, shows Lisa Marston, left, Rogue Valley Council of Governments, and Shanda Shribbs, Oregon Department of Energy Project Manager, the new Rogue River High School natural gas boilers installed with federal stimulus money.

"If it wasn't for Lisa, I couldn't have done this," said Charleboix.

The high school's two new natural gas boilers were installed by Western Burner of Ashland which turned out to be the lowest bidder. Charleboix oversaw the work which was done in September and October when the weather was nice.

"It's working beautifully," Charleboix said. "The two boilers are on a time clock. They alternate every four hours of run time. If it is very cold, both can operate at the same time."

The benefits of the new boilers are several, according to Charleboix:

- There is now a back-up if one of the boilers is down.
- There is much less maintenance work required.
- The heat is consistent and more comfortable for students and staff.
- The new boilers will save the district an estimated $7,224 per year.

The total cost for the boiler replacement was $150,375. Rogue River School District qualified for a $19,600 incentive from its gas utility, Avista, in addition to using $64,695 of its SB 1149 public purpose charge funds and the stimulus award.

"Teachers say its warmer and there is not nearly as much fluctuation in temperature with the new boilers," said Charleboix.

For a maintenance supervisor whose had to work diligently at keeping an old inefficient boiler up and running, those are very sweet words.

"I couldn't be happier," Charleboix said.

Grants Pass School District

Maintenance Supervisor James Lowe was more than pleased to start working for the Grants Pass School District in 2010 overseeing the replacement of a new boiler at Parkside Elementary.

"The old boiler wasn't that old," Lowe said, "but it never worked efficiently."

The District had applied for a grant from the Oregon Department of Energy's State Energy Program that awarded stimulus funds (American Recovery and Reinvestment Act) for viable energy projects.

The cost estimate for the replacement of the old boiler and the installation of direct digital controls amounted to $402,006. The stimulus award was granted for $99,000. The project also qualified for an incentive of $83,587 from Avista, the school's natural gas utility. The school district's public purpose funds (SB 1149) and a Business Energy Tax Credit paid for the remainder.

Parkside Elementary had a large 73 percent efficiency boiler. It was replaced with two smaller 95 percent high efficiency condensing boilers and variable drive pumps. In addition to the new boilers, the old pneumatic control system was replaced with a Direct Digital Control System (DDC) equipped with carbon dioxide sensing demand control ventilation which Lowe can control through his computer in the school administration office.

"It took some debugging, but I can control it remotely and adjust individual rooms," Lowe said.

He's getting plenty of "my room's just perfect" comments from teachers. The maintenance staff is spending far less time "tweaking" the new boiler's performance, something they spent considerable time on to no avail with the old boiler.

Grants Pass Maintenance Supervisor James Lowe, right, shows Shanda Shribbs, Oregon Department of Energy Project Manager, the new Parkside Elementary School natural gas boilers installed with federal stimulus money.

Normally, only one of the new natural gas boilers runs at a time. If the outside temperature hits 32°F and below, however, both boilers will work. The boilers are made by HydroTherm® Boilers of Boyertown, Pennsylvania. One of the requirements for using Recovery Act funds on an energy project is that all equipment must comply with the Buy American Act as its primary goal is to put American workers to work.

The computer also lets Lowe know when the filter needs changing which will save on filter replacements. "Before we changed filters at regular intervals," said Lowe. "Now, the computer tells us when the filter needs to be changed."

The boilers are down during the summer when school is out. A small heat pump is used to keep the office administration staff, who work during the summer, comfortable.

The school district awarded three nearby Medford businesses with work on the boiler replacement: Johnson Controls, Metal Master and Precision Electric.

For Lowe and the 425 students and staff at Parkside, the new boiler is doing its job keeping the temperature comfortable and consistent.

The best news, however, is that the new boilers and controls are expected to save $43,872 a year in energy costs every year. Those savings are something Lowe and Grants Pass School District are pleased to hear about.

How small Oregon school districts can find funds for energy projects

Small Oregon school districts have been feeling the budget pinch for years. And, like school districts throughout Oregon, smaller schools have many older facilities.

According to the US Department of Energy (US DOE), schools spend more on energy than any other expense except personnel. The US DOE Energy Efficiency & Renewable Energy Building Technologies Program also notes that energy is one of the few expenses a school district can reduce without sacrificing educational quality.

What help is available for Oregon schools (small or large) that want to reduce their energy use?

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> *- US Department of Energy*

Stimulus funds - The Oregon Department of Energy has awarded 60 school districts throughout Oregon with stimulus (American Recovery and Reinvestment Act) funds for energy projects. While there are no funding opportunities at this time, the Oregon Department of Energy is using some stimulus funds to conduct energy audits of schools that do not receive public purpose funds (Senate Bill 1149). The School Audit Initiative is scheduled to begin April 2011.

Qualified School Construction Bonds - The stimulus (American Recovery and Reinvestment Act) funds created a new category of tax credit bonds for the construction, rehabilitation, or repair of public school facilities and for the acquisition of land on which a public school facility will be constructed. The bonds are determined by a federal formula, with a minimum amount set for each state. Oregon received nearly $110 million for this funding. www.nsba.org/MainMenu/Advocacy/FederalLaws/FederalFunding/Stimulus/School-Bonds/BondDescriptions.aspx

Schools Team - The Oregon Department of Energy has a Schools Team that is available to assist Oregon schools with accessing available funding to implement energy-efficiency projects. Contact the Oregon Department of Energy at (503) 378-4040 or toll-free at 1-800-221-8035 and ask for the Schools Team.

Business Energy Tax Credit (BETC) - The Oregon Department of Energy oversees the BETC program that covers a percentage of the eligible cost of a conservation or renewable energy project. Projects must be pre-approved. Since public schools do not have a tax liability, the BETC has a pass-through option that schools can use to receive a cash payment and transfer their tax credit eligibility to an eligible third party. Contact the Oregon Department of Energy at (503) 378-4040 or toll-free at 1-800-221-8035.

Energy Loan Program - Schools are eligible to apply for a low-interest, long-term, fixed-rate Energy Loan through the Oregon Department of Energy. Loans can be structured around anticipated public purpose fund (Senate Bill 1149) payments and/or estimated energy savings. Contact the Oregon Department of Energy at (503) 378-4040 or toll-free at 1-800-221-8035.

The Oregon Department of Energy (ODOE) awarded this energy project with American Recovery and Reinvestment Act (stimulus) funds through the State Energy Program. These funds are designated for energy efficiency and renewable energy projects. The U.S. Department of Energy administers the funds, approves the projects and reviews the state's progress. The Oregon Department of Energy received $42.1 million in SEP funding. All projects must be completed by February 15, 2012.

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