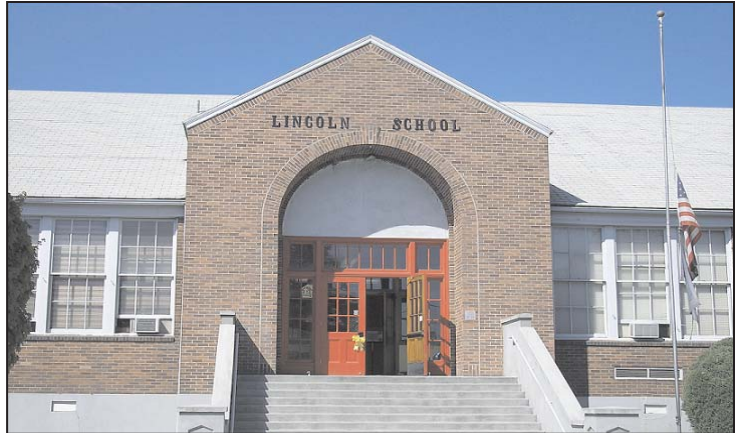


Energy Savings Performance Contract

Pendleton Schools 'round up' energy savings

East of the Cascade Mountains in Oregon is high desert and sagebrush country where cowboy boots are common attire.

Pendleton is a perfect picture of a town with that "western" flavor. It is best known to Oregonians as the home of the Pendleton Round-Up, established in 1910, and now recognized worldwide. But with only 17,000 residents, it is a small town.



Lincoln Elementary School in the Pendleton School District saw the benefits of energy efficiency projects as part of an Energy Savings Performance Contract with TAC Energy Solutions.

Like many Oregon small rural towns, the Pendleton School District is the heart of the community. Pendleton has one high school, one middle school and five elementary schools that serve 3,140 students.

And, like many districts, the schools are old buildings with old equipment. Maintenance had been deferred for too many years.

To address infrastructure needs and achieve energy savings, the District decided to use an Energy Savings Performance Contract (ESPC). The ESPC allows a school district to select one company with expertise to manage numerous projects to improve energy performance from start to finish. Oregon procurement law allows a project owner to select a company based on qualifications instead of the lowest bid.

Savings guarantee

"We were interested in the savings guarantee that the ESPC process had to offer," said Bob Reese, Business Manager for Pendleton School District. "And with a small maintenance staff, we didn't have the in-house expertise to complete all of the projects on our own. We valued the outside expertise to help."

The district contracted with Abacus Engineered Systems (which has since been acquired by TAC Energy Solutions) in 2004 to do several energy projects at six of the District's eight facilities. The work included the replacement of several boilers, lighting upgrades, and the installation of direct digital control systems. Some additional measures were completed by the district with support from TAC.

The work was performed late 2004 through the summer of 2005. The measurement and verification phase began following construction and lasted two years. TAC guaranteed a



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savings of \$174,677 through September 2007. The final report identified \$191,246 in utility cost savings was achieved, exceeding the contract obligation by nearly 10 percent.

The savings continued through the winter. As of April 2008, cost savings were \$269,256.

More than energy savings

In addition to energy savings, Pendleton realized maintenance savings, too.

Due to the improved systems and equipment upgrades at a number of the schools, Reese notes, “We had maintenance savings, too. Now we can set parameters for our HVAC systems with the networked control system that we weren’t able to do before.”

“The willingness of the Pendleton School District maintenance staff to learn and to try new things has greatly contributed to the savings of the project,” said Fred McCandless, Senior Performance Assurance Consultant with TAC. “It has helped to generate savings beyond the original scope of work.”

Staff now has access to energy use information and utility monitoring software that wasn’t available to them before. They are able to run trend logs with the control system to help identify problems and track equipment use.

“I check in with the District on a regular basis,” said McCandless. “However, the maintenance staff has become so proficient at troubleshooting and maintaining their own systems, I don’t hear from them often. They have been able to achieve significant energy savings while maintaining comfortable spaces.”

Fewer complaints

“We’ve seen a reduction in climate complaints,” said Pat Steelman, Facility Coordinator with Pendleton School District. “There has been a lot of improvement in the air quality and air circulation in the buildings. Using the temperature and CO₂ monitors in the classroom, we can make adjustments as necessary. This has been especially helpful in hot weather to keep the temperature comfortable in the afternoon.”



Pendleton High School is the only high school in the rural town of 17,000 and a center of community activity.



The new lights at West Hills Elementary School gym in Pendleton are much more energy efficient.

Financing the projects

The total project cost amounted to \$1,905,164. Pendleton used their available SB 1149 funds of \$284,885. In addition, the projects qualified for a Business Energy Tax Credit. Using a pass-through partner who accepted the tax credit eligibility, the School District was able to receive a cash payment of \$124,569 upon project completion.

With an estimated annual energy savings of 35 percent, the simple payback for the project was 13.5 years.

McCandless adds, “I advise school districts to consider whole systems and not just the components when looking to improve their facilities or achieve energy savings. The District’s long terms goals play an important role in developing performance contract projects. It is this holistic view that will bring the greatest savings in the end.”

Grant funding from the US Department of Energy’s Rebuild America program helped provide technical support and assistance to the school district through the performance contract process. If your school district is interested, contact the Schools Team at the Oregon Department of Energy at 1-800-221-8035.

For more information on EPSC, visit the Web site: www.oregon.gov/ENERGY/CONS/school/perfcontract.shtml or call 1-800-221-8035 and ask for the Schools Team.



West Hills Elementary School was one of the Pendleton School Districts older buildings that is now operating more efficiently thanks to work performed under an Energy Savings Performance Contract.



**www.oregon.gov/energy
School Team
1-800-221-8035**

What is an Energy Savings Performance Contract?

An energy savings performance contract (ESPC) has three distinguishing features:

1. A single procurement is used to purchase a complete package of services in which one contractor is accountable for:
 - Investigating existing conditions
 - Calculating energy savings and project costs
 - Completing all necessary designs
 - Procuring the subcontractors
 - Providing project and construction management
 - Commissioning
 - Training staff to effectively operate the systems
 - Providing measurement and verification of savings throughout the term of the contract
 - Guaranteeing the results
2. Project financing covers the entire project costs so no up-front money is needed.
3. An energy savings performance contract is structured so that the energy savings meet the monthly or annual loan payments. It is budget “neutral.”

A conventional process to purchase energy-efficiency improvements generally requires three separate solicitations and contract awards. ESPC replaces multiple solicitations with a single request for proposals (RFP) covering all aspects of the project and one set of contract documents with the selected Energy Services Company (ESCO).

Process

The process begins with an evaluation of a facility’s potential for energy efficiency improvements by the facility staff. If the potential seems promising, the school district prepares an RFP. This RFP covers all engineering, equipment purchasing, construction, and commissioning needed to complete the project. The school district awards the contract to a single contractor who is accountable for all services and guarantees a level of savings to the facility.

Once selected, the ESCO performs a detailed study of energy efficiency opportunities at the facility. The school district reviews this study and approves a final list of energy efficiency improvements. The ESCO then prepares plans and specifications that the school district reviews and approves.

After receiving notice to proceed, the ESCO furnishes, installs, and commissions the energy efficiency improvements. Commissioning includes verification of system installation and operating parameters, training of operations and maintenance staff, providing equipment manuals and documentation, and all warranty information. When the project is complete, the energy savings measurement and verification process begins and the savings guarantee goes into effect. These activities continue for the duration of the contract term.

The school district monitors the day-to-day performance of the ESCO during the construction phase in the same manner as any capital improvement project. After construction is completed and accepted, the school district reviews equipment operation and measurement and verification reports to ensure the guaranteed energy savings are achieved.

Step 1 - Get information

The Oregon Department of Energy Schools Team is available to provide a Guidebook (on the Web at www.oregon.gov/ENERGY/CONS/school/docs/ESPCGuide.pdf). For additional information on the Web visit: www.oregon.gov/ENERGY/CONS/school/espctemp.shtml or call toll-free in Oregon 1-800-221-8035.