



Rebuild America EnergySmart Schools Success Stories highlight schools and school districts that are making smart choices about energy, reducing energy and raising awareness of energy issues.

- New Building Design
- Existing Building Improvement
- Operation and Maintenance
- Renewable Energy Technologies
- Financing Building Improvements
- Energy Education



Improving Schools in Rural Idaho

School Districts Use Performance Contracts to Reduce Energy Costs and Upgrade Facilities

Small school districts in Idaho are financing capital improvements through energy performance contracts. By paying for improvements through future utility savings, these schools are improving learning environments without breaking their budgets.

The Challenge

School districts in small towns and rural areas often have limited capital budgets to fund facility improvement projects. At a time when many state and local governments face budget deficits, these school districts make due with aging equipment and facilities, despite high operation and maintenance costs.

The Solution

To address this dilemma, several small school districts in Idaho have turned to energy performance contracting, in which upgrades and retrofits are funded using future savings on utility bills. "This funding mechanism helps rural schools with limited capital budgets improve the learning environment while saving energy," explains Sue Seifert, a senior energy specialist in the Idaho Energy Division and leader of Rebuild Idaho.

Jerome School District, about 100 miles southeast of Boise, teamed up with Rebuild America to pursue energy-saving improvements by using performance contracting. Rebuild Idaho, which introduced the rural school district to Rebuild America, provided assistance with the request for qualifications. The school district signed a contract with Chevron Energy Solutions - an energy services company (ESCO) and Rebuild America Business Partner - to improve mechanical systems and install energy-efficient lighting.

The mechanical and lighting improvements, which were completed last winter and affect 255,000 square feet of building space, are estimated to produce 25 percent savings annually for 12 years.

The ESCO would only guarantee savings if the school district hired an onsite Resource Conservation Manager (RCM) to monitor HVAC systems and adjust controls to ensure optimum operational efficiency. Each day Rick Ames, the RCM, walks through the facilities to verify that systems are working properly. Twice a month, Ames meets with a representative from the ESCO to receive ongoing training. He also searches for additional opportunities to save energy and encourages staff to look for and reduce unnecessary energy consumption.

Continued on back



Rebuild America Schools
U.S. Department of Energy

Endorsed
by



National School
Boards Association



U.S. Department of Energy
**Energy Efficiency
and Renewable Energy**

Partnership Facts:

Name of partnerships:

Jerome School District
Gem County (Emmett School District)

Targeted buildings:

K-12 schools

Space completed or improved*:

- Jerome School District: 255,000 square feet
- Emmett School District: 190,000 square feet

Annual energy savings*:

- Jerome School District: \$91,000
- Emmett School District: \$95,000

Amount invested in energy-saving project or initiative*:

- Jerome School District: \$940,000
- Emmett School District: \$1.7 million

Contact:

Richard Ames
Resource Conservation Manager
Jerome School District
208-324-3361 x1300
amesr@d261.k12.id.us

Dr. Jim Fisher, EdD
Assistant Superintendent
Emmett School District
208-365-6301 x4
jimfisher@emmettschools.org

DOE Seattle Regional Office:

Richard Putnam
Senior Project Manager
800 Fifth Street, Suite 3950
Seattle, WA 98104
206-553-2165
richard.putnam@ee.doe.gov
www.eere.energy.gov/sro

State Representative:

Sue Seifert, sseifert@idwr.state.id.us

*Results from energy performance contracts

The behavioral portion of the performance contract is estimated to reduce energy costs by an additional 5 percent each year.

Outside of the performance contract, the school district is saving energy in an additional 100,000 square feet of space through ongoing operation and maintenance practices.

Other small school districts in Idaho are also using energy performance contracts. Emmett School District, part of the Gem County partnership, implemented \$1.7 million in improvements using a performance contract. After two elementary schools were constructed several years ago, the school system had \$650,000 remaining from the bond that financed the work. Instead of turning to taxpayers to fund capital improvements at another elementary school and junior high school, the school system leveraged those extra funds and implemented a performance contract.

Under the agreement with Siemens Building Technologies, a Rebuild America Business Partner, an elementary school received new heating equipment that replaced an aging coal-fired furnace. Air-conditioning was also added as part of the upgraded systems. A junior high school was retrofitted with high performance replacement windows. The school's 50 year-old boiler, on its last leg, was also replaced with a new system. The schools' incandescent light bulbs were replaced with fluorescent fixtures and energy-efficient sodium vapor lights were installed in the gymnasiums.

The school district was guaranteed savings of \$95,000 annually for 20 years. In the first year after improvements were completed, savings reached \$135,000. "We're pleased with the process," says Jim Fisher, assistant superintendent. "The public is getting a good return on investment."

Key Technologies

Jerome School District

- T8 fluorescent lamps with electronic ballasts
- Compact fluorescent light bulbs
- HVAC controls
- Sprinkler controls

Emmett School District

- High performance windows
- Energy-efficient HVAC and boiler
- T8 fluorescent lights with electronic ballasts
- Sodium vapor lights

What the Future Holds

Other school districts in the state are now exploring energy performance contracting. Meridian School District, a Rebuild America partnership, is in the process of implementing an energy performance contract, notes Seifert.

The state energy office championed enabling legislation, passed by the Idaho legislature, to make it easier for state agencies to use energy performance contracting. Seifert notes they will continue their efforts by advocating clearer regulations for K-12 schools, to make it easier for school districts to use this financing tool.

To learn more visit: www.eere.energy.gov.

A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

Rebuild America is a U.S. Department of Energy program that focuses on improving communities through energy-saving solutions.

 Printed on paper containing at least 50% wastepaper, including 20% postconsumer waste.

