

case study



Idaho school district realizes significant facility comfort and efficiency gains without the financial burden. Thanks to a Honeywell performance contract, the Twin Falls School District is tackling significant infrastructure improvements that otherwise might have taken a decade to complete. For a state known for lean government and low taxes, it's a major accomplishment.

Honeywell

Accelerating Upgrades without Raising Taxes

Situated in the high desert, the Twin Falls School District in Idaho faces extremely hot temperatures for weeks and months on end, as well as very cold weather during the winter months. This, coupled with Twin Falls' tradition of fiscal conservatism, makes energy and facility management a challenge.

Historically, capital projects for the district were done in small phases, as funding became available from operating levies. Replacing a junior high roof, for instance, took four years to complete, even though the schedule added an extra \$88,000 in inflation-related costs. Much-needed projects, like classroom air conditioning, remained on the wish list because the money just wasn't available.

Sensible Comfort

Today, the district is in a much more comfortable place — literally — thanks to a pair of developments. Many of the school buildings date back to the 1930s, with one elementary school built in 1905. They've been cared for, having received periodic electrical, HVAC and lighting upgrades through the years, and the district and surrounding community were dedicated to preserving them as a resource. This commitment allowed the district to:

1. Sign its first performance contract in early summer 2005 for energy-saving and modernization projects with Honeywell. (The district consulted with the Idaho Energy Division on the contract.)

2. Secure passage for a \$49.7 million bond issue to build a new high school.

According to Dr. Wiley Dobbs, superintendent of the Twin Falls School District, voter satisfaction with the success of the performance contract was a key factor in passing the bond issue. Under the contract, Honeywell installed energy-efficient lighting across the district's 11 buildings, upgraded and/or installed new HVAC and mechanical systems, and replaced four leaky roofs.

Honeywell also installed an integrated building management system, Honeywell Enterprise Buildings Integrator™ (EBI), which allows facility managers to remotely control and monitor HVAC and energy management systems across district facilities. This centralized approach helps reduce operation and maintenance costs while improving facility comfort.

Project work also included retrofitting a geothermal system, originally installed in the 1970s to provide hot water heat from a well to an elementary school, a high school and a city swimming pool. The updated system takes advantage of the stable temperature below the earth's surface (around 55 F) to provide heat in the winter months and a heat sink to cool facilities in the summer. The system helps improve efficiency while reducing carbon dioxide emissions and natural gas dependency.

Encouraged by the improvements, the district took the contract a step further

in May 2006 to further reduce its list of deferred maintenance projects. The additional work included two more roof replacements and the installation of mechanical cooling in two schools. Honeywell also upgraded the HVAC systems in four more schools and provided district-wide boiler tune-ups. Finally, Honeywell enhanced the EBI system by adding controls around the new cooling systems and upgraded boilers.

Combined, all the upgrades are expected to save the district more than \$3.5 million in energy and operational costs over 15 years. The savings finance the work and are guaranteed by Honeywell, helping to accelerate the timetable on many of the projects.

Significant Impact

Better facilities are nice, but it's their impact on the learning environment that is most important to Twin Falls. Before the projects, the majority of classrooms were not air conditioned. But all classrooms now have four-season temperature control, providing a direct boost to the learning environment during the hot summer and fall months.

"The research shows and we firmly believe that the environment is vitally important to a child's learning," Dr. Dobbs said.

Ultimately, the budget dollars saved through energy conservation and facility improvements will enable the necessarily thrifty district to put more money where it counts most: education.

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