

## School District Success Story – Energy Savings Performance Contracting

*Nevada's Douglas County School District*, the sixth largest school district in the state, had mounting maintenance needs and failing infrastructure with aging buildings. This was compounded by a budget already stretched to the limit, declining revenues and rising utility costs. Energy savings performance contracting (ESPC) fit the bill. A \$5.1 million project implemented in 2008 is paying for itself through \$456,000 in guaranteed annual savings. “We wanted to do everything within our power to find solutions before even considering asking taxpayers to support a bond,” said Holly Luna, Chief Financial Officer. “And, we recognized an ESPC project would improve our facilities and greatly benefit the educational environment for students and staff.” This base project paved the way for the district to leverage another \$5.6 million in bonds and grants including general obligation bonds, Qualified School Construction Bonds and an American Recovery and Reinvestment Act (ARRA) grant. Rolling those added funds into the ESPC expanded the ESPC project to \$10.7 million for much-needed facility improvements and brought in even more savings.

# Peak Performance in Schools Smart Leveraging of Funds

### *Getting Started:*

The ESPC was a major first step for the district to make facility upgrades and infrastructure repairs, using annual guaranteed savings to pay for projects.

Each of the 11 schools and 7 support facilities benefitted from lighting improvements, a district-wide centralized energy management system, energy efficient transformers, trash compactors, and a number of HVAC system repairs and equipment replacements.

“ESPC provided the vehicle and the roadmap, and we drove it,” Luna said.

In the first step of the ESPC process, the energy service company (ESCO), completed an investment grade audit that identified numerous

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- Holly Luna, Chief Financial Officer



Another meeting to discuss progress – Holly Luna, Chief Financial Officer (right) and Gina Steinman, Facilities Bookkeeper (left). Absent is Gary Cullen, Director of Maintenance and Grounds.

energy and operational savings projects, including projects that didn't make the final cut for the ESPC's base package of self-funded projects.

### *Leveraging Funds:*

This project assessment paved the way for the district to seek additional funding opportunities to capture even more energy and operational savings.

“We had this vehicle up and running, and when ARRA funds became available we had shovel-ready projects already identified and ready to go,” said Luna. The district was awarded \$441,000 in ARRA grant funds from the Nevada State Office of Energy that paid for critical infrastructure upgrades.

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The investment grade audit also was instrumental in the district’s success to get \$2.4 million in Qualified School Construction Bonds which saved local taxpayers \$500,000 in interest alone over the life of the bonds. These funds were rolled into the ESPC along with another \$2.8 million in general obligation bonds. The benefits keep adding up - the ESCO’s measurement and verification reveals that in the first year an additional \$55,000 in annual savings was realized beyond the savings committed to pay for the ESPC.

### *Projects with Many Benefits:*

“We didn’t just cherry-pick low-cost projects – we bundled projects together and went beyond energy efficiency to do projects that are beneficial to the district in more ways than one,” said Luna, “meeting operational challenges and upgrading fire and safety systems as well.” Any project that saves energy or operational dollars, as well as emergency upgrades, can be included in an ESPC per Nevada’s ESPC legislation.



Induction lighting along walkways at Douglas High School cuts energy use and increases security.

A much-needed new fire alarm system was installed which captured operational savings while improving life safety conditions – the old one set-off frequent false alarms interrupting the education programs at the high school. Likewise, a smart trash compactor calls when it’s full so saves on pick-up costs. Induction lighting in the parking lots and outdoor walkways cuts electricity costs and enhances security. A solar system offsets electricity use and provides a valuable educational opportunity. Students monitor real-time system performance on the web.

### *Local Economic Benefit:*

Douglas County was hit hard by skyrocketing unemployment. “We told the ESCO from the start that we wanted a local initiative to benefit the community,” said Luna, “and we were able to keep the dollars locally to the benefit of the local workforce.” The ESCO reports that 72% of the project costs (labor, supplies and services) were provided through local businesses.

### *The Core Mission of Education:*

The district’s motto is “high standards for peak performance.” Luna said, “we’re trying to create a better learning environment for our 6,300 students and high performance in buildings plays a big role.”



A solar system offsets electricity use and provides a valuable educational opportunity. Students monitor real-time performance on the web.

### *A Team Approach:*

“It’s taken a team to do this,” said Luna. Many district departments cooperated - Business Services, Maintenance and Grounds, Information Services, the Student Nutrition Program and the Board of Trustees. The ESCO, Ameresco, did the turnkey ESPC effort to assess opportunities, guarantee savings, arrange financing and handle all construction, making it easy on the district to manage a multitude of projects. The project facilitator, Celtic Energy, advised the district throughout the process, providing technical oversight, monitoring results and ensuring quality control. The Nevada State Legislature had set the ground rules to ensure success and the State Purchasing Division instituted some quality control procedures to assist local governments through the process.

“The ESPC project has been beneficial to everyone – students, staff and community,” said Luna, “by improving our buildings in ways otherwise unattainable in our current economic situation.”

