



AN ENERGY STRATEGY THAT HELPS TACKLE DEFERRED MAINTENANCE CHALLENGES

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In these tough economic times, Missouri school districts are facing major financial challenges, resulting in tighter budgets. Statewide, property tax revenues are declining and operating costs are rising. Consequently, school plant managers are often faced with a chronic lack of funds to address deferred maintenance needs.

When funds are available, a school board's first priority is to target scarce dollars toward direct educational needs such as books, computers, and teacher salaries, rather than to fix rusting pipes or an aging roof.

**Part of the answer:
Energy performance contracting**

But many Missouri school plant managers are adopting a different strategy to help address deferred maintenance issues. Focused on energy efficiency, this proven approach helps districts divert budgeted utility dollars toward deferred maintenance -- while also enhancing the learning environment.

The Missouri Department of Natural Resources' Energy Center states that "many Missouri districts have entered into performance contracts with energy service companies...by which energy service companies agree to finance, implement and maintain energy effi-

ciency improvements."

Through energy performance contracts (EPC), districts receive much-needed improvements with little or no up-front cost. Under an EPC, an energy services company (ESCO) guarantees the savings that will be generated by energy-efficient improvements. These pledged savings enable districts to redirect portions of their utility operating budgets into infrastructure improvements. Of course, along with reduced energy usage comes a reduction in the district's impact on the environment as well.

How Missouri schools benefit

Amid shrinking resources, Missouri schools' energy bills are rising. Recent utility rates have increased eight to 22 percent around the state. But an EPC can cut energy usage and utility costs through such conservation measures as lighting system upgrades, new energy-efficient boilers, motors and drives, building envelope upgrades, and water conservation improvements.

The Energy Center says energy-efficiency improvements "can reduce energy expenses by 20-30 percent." Lower utility bills free up money for deferred maintenance and other needs.

Also, EPC's do not count against a district's debt ceiling. State law categorizes EPC investments as "off-balance sheet" loans or leases. Districts are thus not impeded from generating funds for overdue maintenance.

EPC-related improvements can also enhance the educational environment. Studies demonstrate that better lighting improves academic performance. Working in properly ventilated environments, students enjoy better air quality and superior comfort from improved heating and cooling systems.

Additionally, air conditioning may be introduced into school buildings for the first time. This increases comfort levels during warm periods, but can also generate new revenue by allowing buildings to be used for summer school and programs.

Clearing up some EPC misperceptions

"Some districts say energy bills rose even after implementing an EPC initiative."

To prevent this, districts must choose reputable ESCO's that work with school systems to pinpoint guaranteed energy unit or energy usage savings targets. Districts must understand usage patterns and assumptions relating to projected savings. ESCO's should provide detailed reviews of all energy-related and operation/maintenance savings calculations used during technical energy audits of district facilities.

Quality ESCO's will also help districts develop measurement and verification (M&V) strategies customized for the specific school system -- not a "one size fits all" approach.



Can you afford to ignore rising utility costs?

With energy prices on the rise and capital dollars scarce, you need an alternative way to fund your critical projects. Why raise taxes or cut budgeted items when you can lower your utility bills and still make needed facility improvements?

Custom Energy Services, a ConEdison *Solutions* company, is a nationally recognized energy service company, whose purpose is to be a resource partner to school districts across Missouri. As a Missouri School Boards' Association (MSBA) partner we can help you maintain and upgrade your facilities when capital improvement funds are not available. We'll devote time to understanding your unique financial, technical, and personnel needs—and deliver solutions that create tangible, guaranteed results.

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Agreements on savings calculations and M&V strategy must occur before signing an EPC contract to ensure delivery of promised savings.

"We can undertake the energy-efficiency work ourselves without turning to ESCO's."

Time, current knowledge of energy efficient technologies on the market, and staff availability are the common limiting factors for districts that have

the ambition to perform their own energy-efficiency improvements. Typically, in-house personnel have already performed just about everything they are capable of doing. EPCs allow all work to be completed simultaneously and in a timely manner. Districts capture savings immediately instead of waiting years. Also, by redirecting budgeted utility dollars to pay off the construction financing, districts can increase the project's

scope of work and gain benefits from economies of scale.

Local EPC successes

Springfield Public Schools -- the state's third-largest district -- recently partnered with Custom Energy Services, a ConEdison Solutions company, to resolve challenges posed by limited funding resources, rising utility costs, low lighting levels, and aging lighting equipment.



The rusted roof on this Missouri school illustrates the type of deferred maintenance challenges faced by plant managers statewide amid shrinking school budgets. A growing number of school districts have been turning to energy performance contracting as part of their strategy to help them address problems associated with deferred maintenance.

Lighting upgrades -- including instant-start electronic ballasts, T8 lamps, compact fluorescent lights, and LED exit signs -- were performed in a total of 62 district buildings. Occupancy sensors now shut lights in empty rooms. Lay-in ceilings bring lighting lower, increasing lighting levels and enhancing learning environments.

In Clay County, the Smithville R-II School District earned the U.S. EPA's prestigious ENERGY STAR, a national standard for energy efficiency and environmental protection. The district boasts three of only seven ENERGY STAR schools statewide.



Our company helped Smithville manage energy strategically and introduce such improvements as upgraded rooftop HVAC units, new windows and ceilings, retrofitted lighting, new energy management systems and improved water conservation. Energy consumption declined and the district now reaps nearly \$86,000 in annual savings.

Freeing up dollars for deferred maintenance, cutting energy costs long-term, assuming no upfront costs, improving the learning environment, introducing state-of-the-art equipment, promoting environmental preservation and leaving the debt ceiling intact:

There are many good reasons for school plant managers to look into energy performance contracting! •

In February, Custom Energy Services, a ConEdison Solutions energy services company, presented the Springfield Public Schools Board with an award for leadership in energy efficiency and energy-related cost savings. The energy initiative will save taxpayers more than \$300,000 annually and reduce electricity consumption use by 19 percent. Left to right: Dr. Norm Ridder, Superintendent; Jim Cherrington, Missouri School Boards' Association Associate Executive Director of School Resources; Dr. Michael Hoeman, Board Member; Gerry Lee, Board Vice President; Dr. Tom Prater, Board Member; Jean Twitty, Board Member; Bruce Renner, Board Member; Kris Callen, Board President; Andy Hosmer, Board Member; and Koby Kampschroeder, Custom Energy Services Business Development Manager. (Photo: Mark Schiefelbein)