

Energy-Savings Performance Contracting to Address Aging Infrastructure

How one Missouri school district's partnership with an energy service company allowed the district to generate funds to tackle its aging infrastructure.

By Paul Harrell, CPA



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Jefferson City School District in Missouri qualified for a \$586,000 rebate from Ameren, the district's electric services provider, thanks to its energy savings initiative.

Jefferson City is the capital of Missouri and home to the Jefferson City School District. The school district serves nearly 9,000 students in 16 school buildings. Like many school districts, Jefferson City is faced with aging facilities, rising utility costs, and limited financial resources.

When school district patrons passed a general obligation bond issue to build a second high school and renovate their existing high school, available bond dollars

were allocated to the two high school projects. However, the district did not have a clear mechanism to fund the improvements needed in other aging facilities.

Frank Underwood, Jefferson City School District's director of facilities, safety, transportation, and security, was faced with the challenge of how to maintain and update the school district's remaining 14 facilities when new general obligation bonds were targeted toward the high school projects.

Underwood wanted to find ways to increase discretionary dollars available to his department by leveraging money already being spent on electricity, gas, and water to finance the needed upgrades and repairs. He saw performance contracting as a potential avenue to make that happen.

By partnering with an energy service company (ESCO), the district entered into an energy-savings performance contract to generate funds for additional improvements in the remaining school sites.

What Is an Energy-Savings Performance Contract?

An energy-savings performance contract (ESPC) uses guaranteed savings from the maintenance, operations, and utilities budget to upgrade and modernize a building's environmental systems, which are then financed over a specified time.

By partnering with an ESCO, school districts can use ESPCs to improve the energy performance of their buildings, thereby enhancing building operations and saving energy.

ESCOs are project developers; they integrate the project's design, financing, installation, and operational elements and typically offer turnkey installation services. The primary differentiator between an ESCO and other energy-efficiency contractors is the guarantee of energy savings, which is specified as part of the terms of an ESPC.

With an ESPC, the school district repays the money borrowed to finance the project, usually over several years, using the energy cost savings generated from the project.

The ESCO monitors the performance of the project for the life of the contract and verifies the resulting energy savings. In some cases, the ESCO may also operate and maintain the new equipment and systems.

Benefits of Hiring an ESCO

Hiring an ESCO is a proven strategy for identifying and implementing energy-saving capital improvements, while managing risks inherent in such projects.

ESCOs can provide a range of services, from an energy audit to a third party-financed turnkey project, with a comprehensive set of measures and guaranteed energy savings. Their specialty is the energy-savings performance contract that shifts some of the project's performance risk to the ESCO in exchange for allowing the ESCO to capture a share of the savings.

The following are key benefits of working with ESCOs:

- Effective building performance
- Options for project financing and risk management

- Access to professional expertise
- New equipment
- Training with little to no up-front cost

The ESPC can apply to an individual building or an entire campus.

The Jefferson City School District Project

The Jefferson City School District completed a request for qualifications process to select and hire an ESCO. The selected ESCO was engaged to perform an investment-grade audit to identify critical facility issues and develop energy conservation and facility improvement measures to address them.

The school district was able to complete the following projects through the ESPC:

- Upgrade the interior lighting with energy-efficient LED lamps and fixtures
- Upgrade heating, ventilating, and air-conditioning (HVAC) equipment
- Coordinate building automation systems
- Replace water-source heat pumps
- Implement water conservation measures
- Weatherize buildings
- Optimize building performance through data analytics

Underwood explains, "Without using general obligation bond dollars, the district was able to fund \$16 million in improvements by utilizing a guaranteed energy-savings performance contract and reallocating dollars made available through the [Elementary and Secondary School Emergency Relief] funding."

By implementing this project, Jefferson City School District will save an estimated \$10.8 million over the 15-year term of the ESPC.

The Jefferson City School District project improved the environment with the annual reduced emission of an estimated 6,015,994 pounds of carbon dioxide, a harmful greenhouse gas. That emission reduction is equivalent to preserving 20 acres of forest from deforestation or conserving 308,525 gallons of gasoline.

The school district also qualified for a \$586,000 rebate from Ameren, its electric services provider. In April 2022, Ameren recognized the school district for its efforts with its Energy Efficiency Champion Award for conserving resources by upgrading its HVAC systems.

To learn more about ESPCs, visit the National Association of Energy Service Companies website at www.naesco.org.

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