



Supporting sustainability efforts while preparing for community growth, this forward-looking school district opted for a performance contract that will use energy savings to pay for much-needed facilities improvements.

The Challenge

Marshall County occupies 710 square miles on Mississippi's northern border, just across from Tennessee. Founded in 1836, this primarily agricultural area is home to just over 37,000 residents.

Recently the county built a new industrial park. As a result, the school district anticipates growth as people and businesses move into the area and more students enroll in the district's seven schools. Current student enrollment in grades K – 12 is 3,326.

Before planning for the future, though, the district knew it would have to address deferred maintenance projects at its existing school facilities.

Schneider Electric met with district officials to discuss the benefits of an energy savings performance contract, a turnkey solution that incorporates design, construction, commissioning, and performance measurement into a single, guaranteed fixed price. Schneider Electric

guarantees the amount of savings and agrees to pay the difference in the event the school district does not realize that amount.

With its strong track record of sustainability and energy-saving projects in K – 12 schools across the country, Schneider Electric made an ideal partner to help the district address its deferred maintenance issues.

More important, the energy savings will pay for upgrading facilities district-wide and allow the school district to achieve its vision for a better learning environment without compromising its financial well-being. At the same time, it will enable the school district to demonstrate its commitment to sustainability efforts to students, staff, and residents alike.

District officials signed a performance contract with Schneider Electric near the close of the 2014 – 2015 school year, and Schneider Electric got right to work.



Customer Benefits

- Lower operational costs
- Decreased energy use
- Increased sustainability measures
- Enhanced public image

The Solution

In May 2015, Schneider Electric began working afterhours to retrofit the lighting in schools districtwide. For instance, LED lighting installed atop school exteriors provided additional security outdoors.

Indoors, T8 bulbs with electronic ballasts replaced less efficient T12 bulbs with magnetic ballasts. High-bay fluorescent lights with instant strike capability replaced outdated metal halide lighting in gyms. All in all, Schneider Electric installed 4,069 energy-efficient lights indoors.

Schneider Electric also installed a building automation system (BAS) in each school to increase operational efficiency. For instance, flexible scheduling features enable the district to automatically modify operations for weekends, holidays, and vacation periods. An override capability also provides flexibility to turn the power on or off in designated areas without having to power up an entire facility. Ultimately, these capabilities extend equipment service life.

HVAC systems at several schools had reached their end-of-service life (some were 30+ years old). Schneider Electric replaced several systems in critical condition and gave the district a list of priorities to address the others as additional funds became available.

New low-gallon flush commodes and low-flow fixtures (e.g., showerheads and faucets) were installed to conserve the district's water resources. Implementation of IT power management controls help save energy by allowing equipment (e.g., PCs, smart boards, anything with an IP address) to hibernate or "go to sleep" when not in use.

The district also installed Schneider Electric's Resource Advisor. This software allows employees, students, and any interested party to simply click on a dashboard to see how a specific facility is using energy and water resources.

The Bottom Line

By partnering with Schneider Electric, the Marshall County school district expects to reduce its energy consumption by 27 percent to achieve annual savings of \$147,571. The district will use its energy savings to pay for all improvements — without having to raise taxes.

With savings in excess of \$4 million over the life of the contract, the community will benefit from state-of-the-art improvements with zero strain on the district's operating budget.

This project is also good for the local economy. It will have a total economic impact of \$6.5 million, including the creation of 23 new jobs, \$3.2 million in additional business revenue and more than \$125,000 in state and local tax revenue.

This performance project will also have a significant environmental impact on the community, providing energy efficiency savings equal to removing 754 tons of carbon dioxide from the atmosphere, taking 162 cars off the roads or powering 97 houses.

Committed to sustainability efforts, school district officials are encouraging the public to participate in the county's energy efficiency movement by downloading the Community Sustainability Guide from its website. The guide offers tips for reducing energy use and waste at home, at work, and on the road.



Project at a Glance

Location	Marshall County, Mississippi
Project type	Energy savings performance contract
Property	Ten schools
Funding	Municipal lease purchase
ECMs	Lighting retrofits (interior and exterior) Resource Advisor software HVAC replacements BAS installation IT power management Water conservation measures
Guaranteed savings	\$147,571 annually
Installation	2015

"This is an opportunity for us to make improvements to our aging schools that we otherwise could not afford."

Jerry Moore
Superintendent

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