



"We had both lighting and energy use issues at our buildings, and we needed a way to address those issues without spending our limited capital projects balance. TAC provided us a way to do that."

*Dr. Jeff Lindsey
Superintendent*

PROJECT AT A GLANCE

- Project Type:**
Energy Solutions
- Location:**
Van Buren, Missouri, USA
- Guaranteed Savings:**
\$16,129 annually
- Funding:**
Lease purchase
- Installation:**
2005

Van Buren R-1 School District

Taking a proactive approach to controlling energy consumption and reducing costs, this school district leveraged a performance contract from TAC to fund improvements to its building and lighting systems.

THE CHALLENGE

Nestled in the foothills of the picturesque Ozark Mountains, the city of Van Buren, Missouri, is home to a population of 845. Originally organized in 1830, the city was named for Martin Van Buren, who later became the eighth U.S. President. Today, the city occupies two square miles in the southeast quadrant of Missouri.

The Van Buren R-1 School District's elementary school and high school meet the needs of 563 students in grades PreK-12. The student-teacher ratio is 12 to 1.

Faced with rising energy costs, the district looked for ways to minimize its energy consumption. As a result, wasted energy became an issue, especially energy usage related to the HVAC equipment. If someone forgot to turn off the equipment in an area that was no longer occupied, it would continue to run. Additionally, inconsistent light levels and inefficient lights impacted the learning environment as well as energy costs.

In 2004, the district began its search for a vendor capable of addressing its needs and working around a summer school schedule. TAC suggested that the Van Buren R-1 School District consider a performance contract that offered guaranteed annual energy savings.

The performance contract proposal appealed to the district. TAC had successfully executed similar projects for other school districts in the state, building a reputation for its dedication, expertise, and willingness to follow through on a project. Moreover, the district discovered that it could fund the new energy management solution through a lease purchase.

CUSTOMER BENEFITS

- Flexibility to expand
- System interoperability
- Reduced energy costs
- Guaranteed savings

Van Buren R-1 School District

THE SOLUTION

TAC installed a TAC Vista™ energy management system for the Van Buren R-1 School District. The TAC Vista system's enable/disable capability allows the district to schedule the operation of boilers, furnaces, air-conditioning units and ventilators in the district. TAC also installed direct digital controllers (DDC) on the boilers.

A front-end PC provides easy access to the TAC Vista system for equipment programming as needed. In addition to scheduling the system's on/off capabilities for daily operations, the district can program the system for holidays, weekends and special events to conserve energy and control costs.

Like school districts everywhere, Van Buren R-1 School district knows that a comfortable indoor environment enhances student learning. So TAC installed individual room thermostats that allow staff to modify comfort levels within a predetermined range.

A lighting retrofit increased light levels while decreasing operating costs. TAC replaced existing metal halide lights in the gym with more energy-efficient, high-bay fluorescent lighting. TAC also enhanced classroom light levels by replacing T12 bulbs with more energy-efficient T8 bulbs and electronic ballasts.

THE BOTTOM LINE

One year after TAC installed the TAC Vista system and new lighting, the district realized energy savings approximately 20 percent higher than the amount guaranteed in the performance contract.

Today, the district uses the TAC Vista system to monitor and quickly pinpoint potential problems in the school district's five main buildings.

EDUCATION PROFILE

Parents and students have high expectations when they select a school, whether it is public or private. They require a quality education and an experience that prepares students for the future. State-of-the-art facilities, safety and security are of primary concern. In order to meet rising expectations within this cost-sensitive market, schools, colleges and universities must invest wisely in their facilities as a strategic asset to keep occupants comfortable and attract faculty and staff.

TAC has proven experience with public schools, private schools and higher educational facilities in providing building management solutions that maximize energy efficiency and performance. This leads to a reduction in operating costs and enables the reallocation of saved resources to new programs for students within the same budget.

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