



BATES COUNTY MEMORIAL HOSPITAL, MISSOURI

Energy Efficiency HVAC

Goals and Challenges

The main challenge at Bates County Memorial Hospital was that the building's mechanical and control systems had aged well-beyond their useful life and could no longer be maintained.

Despite the fact that a major hospital addition was constructed in 2002, most of the independent infrastructure systems dated back to the 1960-1970s.

Importantly, the hospital had no comprehensive plan or strategy as to how to address the replacement and optimization of these systems for the long-term.

At one point, the hospital administration attempted to improve the energy efficiency of the hospital's infrastructure through a traditional performance contract, but their Energy Star® rating was still a disappointing 37 even after they had completed this contract.

Project Value



\$1,741,340

Annual Savings



\$168,483

Energy Savings



581,949 kWh/yr



188 kW/yr



64,220 therms

Carbon Offset



2,048 trees

Project Payback



10.3 years

Solutions

Willdan designed and implemented improvements that would address the hospital's aging infrastructure, as well as improve its overall Energy Star rating.

Specifically, the hospital infrastructure improvements were focused on addressing systems that were at imminent risk of failure.

All infrastructure upgrades were comprehensively studied to understand the optimal engineering solutions for the future, with an emphasis on the lowest life-cycle cost.

Highlighted Result: Combining these critical needs with energy-saving measures, such as replacing and optimizing the building automation system, allowed the hospital to improve the longevity and performance of their infrastructure at an excellent ROI (return on investment).

Key Benefits

- Enhanced patient and provider comfort through improved HVAC infrastructure and advanced control systems
- The new, reliable systems greatly reduced existing and future maintenance concerns
- Improved hospital air quality
- The hospital's Energy Star rating drastically improved from 37 to 80



Featured Solutions

- Engineering Design
- System Optimization
- Energy Efficiency
- Energy Planning