



Graham County Hospital

Energy-Efficiency Improvements

Hill City, Kansas

Summary

Graham County Hospital exists to assure available healthcare services for area residents. Their purpose is to work with other community providers toward the prevention and treatment of diseases and injury, to maintain a health learning environment and to promote the health of the general community.

The hospital engaged Energy Solutions Professionals (ESP) to perform a detailed energy audit that would uncover opportunities for energy-efficiency improvements that would pay for themselves in a reasonable time frame. The audit recommended \$648,000 of facility improvements that would improve building comfort, reduce maintenance headaches, and save \$38,000 in annual costs.

A major focus of the project is replacing and consolidating the hospital's aging boilers. The existing equipment, some of which dates back to the 1950s, was at the end of its useful life and scattered in various buildings. In order to ease maintenance and reduce energy use, new high efficiency dual-fuel condensing boilers were installed in a central plant.

The project also includes state-of-the-art lighting and lighting controls that will automatically turn off lights in unoccupied rooms, enhancements to the existing energy management control system, piping replacements, new windows, and the replacement of window air-conditioning units with more efficient mini-split systems.

The program is expected to cut Graham County Hospital's utility usage by 27 percent and reduce carbon emissions by 242 metric tons, equal to the annual emissions from electricity use of more than 36 homes.

Energy Solutions Professionals is also working with the hospital to develop energy guidelines, establish optimal settings for temperatures, and set equipment operating schedules in a manner that maintains occupant comfort while maximizing the potential energy savings.

"The fact that we can address so many areas of need by leveraging our utility savings really made this a key opportunity to improve our facilities."

Melissa Atkins
Chief Executive Officer
Graham County Hospital



Quick Facts

Scheduled Completion: 2013

Total Square Feet: 36,700

Number of Buildings: 2

Total Project Cost: \$648,000

Annual Savings: \$38,000

Energy Conservation Measures

- Lighting retrofits
- Energy management system controls expansion
- Boiler plant upgrades
 - Plant consolidation
 - Dual fuel condensing boilers
- Piping replacements
- Low-E double pane argon filled windows
- Mini-split AC units
- Schedule & set point optimization
- Energy guidelines