



Belle Plaine USD#357

Energy-Efficiency Improvements

Belle Plaine, Kansas

Summary

Unified School District 357 is committed to providing quality schools and to maintaining a partnership with the greater community that will prepare each student to become a lifelong learner and a contributing participant in a changing world community. The district has approximately 670 students in preschool through grade 12 served by three schools; Belle Plaine Elementary School, Belle Plaine Middle School, and Belle Plaine High School.

During the Summer of 2013, Belle Plaine USD 357 issued an RFP in order to select a firm to assist the district in analyzing and implementing high performance, energy-efficiency improvements, while optimizing building operations and on-going maintenance of equipment and systems. The district selected Energy Solutions Professionals (ESP) as a result of the competitive process.

ESP completed a comprehensive ASHRAE Level 3 energy audit of the district's facilities during the Fall of 2013. The audit found that although the district's utility costs are reasonable and the facilities are well maintained, there was still an enormous opportunity to save energy.

Among the recommended upgrades are new more efficient lighting and lighting controls throughout the district, plumbing fixtures that use less water, enhancements to the district's computerized building controls, new more efficient rooftop units for heating and cooling, and web-based programmable thermostats.

Belle Plaine expects to save over \$69,000 annually from the energy-efficient improvements. The district will also lessen its annual greenhouse gas impact by more than 1,290,000 pounds of harmful emissions; the equivalent of saving 480 acres of U.S. forests.

Energy Conservation Measures

- new lighting fixtures, lighting retrofits and lighting controls
- water saving measures
- energy management system controls expansion
- web-based programmable thermostats
- rooftop unit replacements
- energy management system optimization and energy guidelines



Quick Facts

Completion: June 2014 (currently construction)

Total Square Feet: 184,000

Number of Buildings: 3 schools and various district buildings

Total Project Cost: \$584,000

Annual Savings: \$69,000

Utility Savings: 29%

Greenhouse Gases Reduced: 585 metric tons

Equivalent to: Annual emissions from 122 cars