

Brown County, Kansas

Energy-Efficiency Improvements
City, State



QUICK FACTS

Completion: 2021
Total Square Feet: 19,968
Number of Buildings: 1
Total Project Cost: \$298,858
Annual Savings: \$13,786

ENERGY CONSERVATION MEASURES

- replaced HVAC controls
- plasma ionizers
- LED lighting
- new commercial laundry equipment

BACKGROUND

Located in northeast Kansas, Brown County has a population of 9,508 and the Sheriff's Department is tasked with providing quality law enforcement for those citizens.

CHALLENGE

Ever since its completion in 2010, the Brown County Jail has been plagued by high humidity and uneven temperature issues. The ESP team evaluated the underlying causes and identified other energy-saving solutions that would help the jail save energy and money.

SOLUTION

ESP replaced and correctly sized 11 roof-top units to provide proper heating, cooling, ventilation and humidity control to the indoor spaces. The units feature enthalpy controlled economizers, hot gas reheat coils and humidity sensors. Additionally, ESP installed plasma ionizers to help reduce harmful air particles like viruses, bacteria, mold, pollen and VOC's. New LED lighting was installed throughout the building. ESP was also able to include new commercial laundry equipment that was greatly needed.

BENEFITS

ESP completed the project at 1/3 the cost of another competitor's proposal. The temperature, humidity and indoor air quality (IAQ) in all of the spaces has greatly improved.

"ESP came to our facility, brought in experts and were able to totally replace our HVAC system, including air purification which resolved all of our issues. All of our lighting was replaced with high efficiency LED's as well as a commercial washing machine and 2 dryers and at less than 1/3 of the cost of another company's projection. They even returned \$13,000 back to the county.

I have worked hand in hand with many companies over the years, and I can say that ESP is, by far, the most reliable, honest and dependable bunch of folks you will ever come across."

John D. Merchant, Brown County Sheriff