

City of Moberly

Energy-Efficiency Improvements
Moberly, Missouri



QUICK FACTS

Completion: 2020

Water Meters Replaced: 5,300+

Total Project Cost: \$4,600,000

Annual Savings: \$565,000

Carbon Footprint Reduction

20,990,000 lbs of CO₂e

ENERGY CONSERVATION MEASURES

- advanced metering infrastructure (AMI) water meters
- meter billing and accounting software
- sequencing batch reactor (SBR) blowers
- variable frequency drives (VFDs)
- programmable logic controller (PLC) upgrades
- SCADA programming upgrades and web-enabled interface

BACKGROUND

The City of Moberly, founded in 1866, is located in north central Missouri. As of the 2010 census, the City had a population of nearly 14,000 people.

CHALLENGE

The City of Moberly needed to replace aging water meters and address water billing problems that were occurring and causing the City to lose revenue. There were also some opportunities for the City to save money at the water and wastewater treatment plants.

SOLUTION

ESP provided a turnkey solution to replace all water meters in the City with advanced metering infrastructure (AMI) water meters. ESP and the City worked together to evaluate multiple water meter hardware providers, as well as software and billing providers that could integrate the data into a robust interface to be used for the City's accounting needs and other records processing. Energy-saving upgrades were also made to the water and wastewater treatment plants. At the wastewater treatment plant, ESP installed new sequencing batch reactor (SBR) blowers and variable frequency drives (VFDs). For the water treatment plant, new VFDs were added, the programmable logic controllers (PLCs) were upgraded, and SCADA programming was modified and web enabled.

BENEFITS

By installing new AMI water meters citywide, the City is now able to accurately track and bill for the water being used. Additionally, the new billing and accounting software handles the processing of additional City tasks (permitting, business licensing, etc.), creating one interface for employees to learn, rather than needing to train on multiple systems.