

# G&W Electric's LaZer® Power Grid Automation solution supplies critical power to rural travel center

## Challenge

Cuivre River Electric Co-op in Troy, MO faced challenges when supplying critical power to a travel center/truck stop. This site operates 24 hours a day, seven days a week providing gas, showers, and other essential services to its customers in rural Missouri. The previous utility setup had been very inconsistent for several years resulting in power outages caused by high winds, wildlife, and vehicles. Outage durations were anywhere between 1 and 4 hours and would cost the travel center/truck stop an average of \$30,000 in lost revenue. This caused Cuivre River Electric Co-op to seek an alternative, more reliable solution.

## Solution

G&W Electric designed, tested, and delivered a state-of-the-art LaZer Power Grid Automation solution that provides uninterrupted power utilizing a communicating automatic source transfer scheme and ensures load side overcurrent protection at the same time. This solution consists of the following:

- Dead-front design Viper-ST reclosers with six integral voltage sensors
- SEL-651R recloser controls programmed with custom automation logic
- ABB TeleOS 900MHz radios for IEC61850 GOOSE peer-to-peer and DNP3.0 SCADA communication

In the event that the preferred source is lost while a solid communication link between both reclosers is established, the critical load is automatically being transferred to the alternate source in under 10 cycles. This transfer speed equals the duration of a blink of the human eye.

For added resiliency, a non-communicating backup logic is included to provide automation functionality should the radio communication be compromised.

The functionality of the entire solution was verified and tested together with Cuivre River Electric Co-op during a Factory Acceptance Test at the G&W Electric factory prior to commissioning. Besides the significant improvements in reliability, Cuivre River Electric Co-op also benefited with cost and time savings by choosing the G&W Electric LaZer Power Grid Automation solution.

For more information on how G&W Electric can provide a solution to meet your unique needs, please contact us today at [info@gwelec.com](mailto:info@gwelec.com) or find your local Sales Representative at [gwelectric.com](http://gwelectric.com).



Viper-ST recloser with 6 Voltage Sensing, control power transformer, 900 MHz radio and SEL-651R control.

