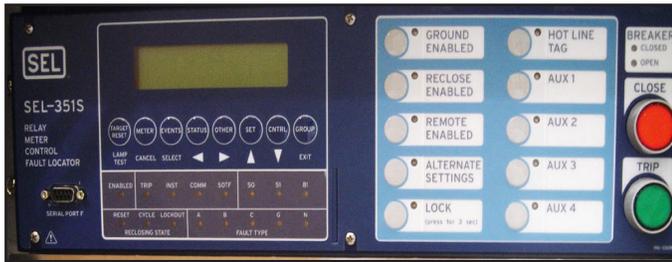


## Recloser Replaces Substation Breaker

### Challenge

The utility provides service to approximately 10,000 customers in a primarily rural service territory of approximately 2,000 square miles. The utility needed to replace their aging circuit breakers, but wanted to leave the rack mounted relays in place within the relay house. Although the existing devices were rated 1200A continuous, this was far in excess of the actual loads on the circuits. Their objectives were to minimize installation and maintenance costs, and reduce the overall size and footprint of the devices, all while reusing the existing SEL-351S relays for control and communication.



SEL-351S control



G&W Electric 27kV Viper-S recloser paired with SEL-351S control.

### Solution

The utility decided to replace the breaker with a G&W Electric 15kV Viper®-S Reclosers with SEL-351S controls. The G&W Electric solution provided many benefits to the customer. Its 800A continuous and 960A eight hour overload rating was more than enough for the current and future loads of the circuit. Its maintenance free design allows the utility to eliminate future maintenance outages that a breaker would have required. In addition, the use of the popular, off-the-shelf SEL-351S control was a big benefit. The customer had been using the SEL-351S as a substation relay already and was very familiar with its operation. This eliminated any need for retraining of operations personnel and added a comfort factor to the product package. They had an established confidence with the SEL control performance and liked its capabilities. G&W Electric supplied C100 CTs mounted external to the insulators for connection to the SEL-351S. Finally, G&W Electric's adjustable height substation stand allowed fast, easy replacement of the breaker. The utility requested that the G&W Electric Viper-S recloser be equipped to accept DC control power, so an AC source of control power is not required. This package provides the optimum balance between system features, flexibility and cost.



Viper-S reclosers installed in utility substation.