

POWERING THE FUTURE: CASE STUDY

## A Proactive Approach to Reactive Power: How one utility improved power factor by leveraging its AMI system



While many utilities focus on improving their performance during peak, the team at Southwest Tennessee EMC (STEMC) went further. They wanted to enhance their off-peak efficiency as well. And to make it happen, they began thinking of ways to optimize power factor.

Their first target? Capacitor banks located on various circuits throughout the distribution network. By automating control of these devices, they are able to ensure the capacitors are operating when needed to achieve optimal power factor and reduce line losses.

In order to automate control of the capacitors, they needed to find a way of operating those devices based on information coming from microprocessor-based relays at the substation that monitor Volt/VAR levels on each circuit.

### Starting the conversation

While STEMC's SCADA system enabled power factor monitoring at the substation, the utility needed to find a way of using this information to control the capacitors. The utility did have a system that could handle this challenge — its Gridstream PLC network.

The Gridstream network provided capacitor control capabilities, including confirmation of switching events. All the utility needed to fully automate the process was a way to make its SCADA and Gridstream systems "talk" to each other. The SCADA system could then trigger switching events within seconds of being necessary.

So Landis+Gyr worked closely with STEMC and the provider of its SCADA system to develop the necessary software integration and automate communication between the two head-end systems.

In the end, the utility was able to achieve its goal of optimizing power factor by leveraging assets it already owned. The key was having an internal team that was willing to think creatively — and a smart grid partner that was willing to go the extra mile.

### Being "Future Ready"

Landis+Gyr is the leader in global energy management. We use our proven experience to help utilities realize the full potential of the smart grid — with solutions that are tailored for today's needs, but that also anticipate what's coming. We call this being "Future Ready."



**Want to learn how you can be "Future Ready"?**

Contact one of our specialists today to discuss your smart grid challenge: [futureready@landisgyr.com](mailto:futureready@landisgyr.com)