

Adding Customer Value Through Integration of All Utility Data

By Susan Ryba

Milton-Freewater City Light & Power is the oldest municipal electric utility operating in Oregon. To meet the requirements of its participation in the Pacific Northwest Smart Grid Demonstration Project, the utility needed to integrate data from its new advanced metering infrastructure (AMI) with its supervisory control and data acquisition (SCADA) and other automation systems. Already a user of meter data management software from ElectSolve Technology Solutions, the utility turned to ElectSolve for the software integration portion of its smart grid program.

The Pacific Northwest Smart Grid Demonstration Project (PNW-SGDP) is one of the 16 smart grid regional demonstration projects funded by the U.S. Department of Energy under the American Recovery & Reinvestment Act. It involves the Bonneville Power Administration, five technology partners, and 11 utilities serving more than 60,000 metered customers across five states. The goal of the project is to demonstrate the potential for a safe, scalable and interoperable smart grid for regulated and non-regulated utility environments.

ElectSolve is a full-service provider of software and technology integration platforms for electric, water and gas utilities. ElectSolve's flagship product, the uCentra™ Operational Data Management (ODM) system, is a vendor-neutral, next-generation meter data management (MDM) system that provides an integration platform for AMI/AMR, CIS, SCADA, OMS, EA/GIS, demand response and distribution automation management systems. uCentra™ provides a 360-degree view of all operational data with centralized management, analysis, and reporting.

Milton-Freewater began changing out electric and water meters for the new AMI system in the summer of 2010, enabling the meters to communicate two ways using powerline carrier as the communication method, said the utility's superintendent, Mike Charlo. In addition, the utility is working with customers who volunteer to participate in a peak shaving program on high demand days. The project focuses on direct load control and demand response

by exchanging one-way load control units previously installed in homes with new two-way communicating direct load control units. The utility is also testing Grid Friendly appliances for curtailing load during peak energy-use times, as well as testing conservation voltage-reduction technology for energy savings.

"The ElectSolve MDM system is the tool that has enabled Milton-Freewater to activate our demand response assets based on the real-time information provided by our SCADA system," said Charlo. "Certain demand response strategies will allow only scheduled demand response activation. Milton-Freewater wanted to activate our assets only when the utility was experiencing a system peak. ElectSolve was the link that enabled that implementation."

Charlo added, "ElectSolve is a good partner, making the integration of our operational data throughout all of these activities very easy to do. Their team does excellent work, always helpful and responsive. The ElectSolve software is highly robust and user-friendly."

Dickson Electric System (DES) in Tennessee serves 35,000 electricity customers. In November 2010, DES decided to move forward with an AMI system to provide meter reads as well as offer communications to the customer end-point.

During the initial planning for the AMI project, DES determined that, due to the amount of interval data provided from the AMI system, it would need to incorporate a meter data management system to archive and manage readings returned from the meters.

In addition to the management of the meter data, DES searched for a complete solution that would allow for the interaction of several systems already in use. The utility's billing system had to pass data in order for accurate billing to be generated. Furthermore, DES's DisSPatch outage management system from Milsoft Utility Solutions needed to access information from the metering system in order to identify customers without power and report service restoration, aiding operations in their analysis. DES also considered the data

that would potentially be received from the SCADA, EA/GIS, and distribution automation systems.

"After evaluating MDM systems and those that met the requirements, we determined that ElectSolve's MDM solution was capable of managing this data," said General Manager Darrell Gillespie. "The ElectSolve solution not only provides the connectivity that we are looking for, but it provides added value through the customer portal and modules that integrate multiple systems as well."

DES is integrating with ElectSolve's uCentra system. The utility has begun the data validation process and hopes to go live within the next few months.

"ElectSolve's staff has been extremely helpful in setting up our MDM system," said Gillespie. "Their team is filled with knowledgeable people who ensure all integration is completed accurately. We have been very impressed, and it is evident that the ElectSolve system has evolved into a premier solution to meet the needs of a utility like DES." ■

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