

The Value of AMR Technology

Kootenai County Launches First Round of CENTRON® Meters with DCSI's TWACS® Module

background

The Background

Kootenai Electric Cooperative (KEC) serves approximately 18,000 members over 1,216 miles of electric line in North Idaho and Eastern Washington in parts of Kootenai, Benewah, Bonner and Spokane counties. KEC purchases electricity from the Bonneville Power Administration. Kootenai Electric is a private, nonprofit electric utility owned by the members it serves.

The Challenge

Originally, we had an inbound telephone system that we were using with a variety of old electromechanical meters. We had every form of meter that had been made since 1938. The maintenance on the system was quite expensive. In addition, we had no Time-of-Use and could not do any tracking or usage outage with it. From our test data, we knew that our electromechanical meters were slowing down and that some types were dying in mass, many that we did not know about, so we were losing a lot of revenue.

We decided that we had to find some system that would be more economical and efficient. As we began to look at different systems, we knew that since our Electric Cooperative is in a rural, mountainous area, we could not rely on wireless technology, so we looked at other technologies available. We had attended the AMRA Conference and Expo for a couple of years. At these shows, we had looked at the CENTRON meter and were sold on it right away. We had also looked at the DCSI TWACS technology and found that it could do what we needed at our costs.

application

Application

Our decision was to implement the DCSI solution using CENTRON meters. We knew the DCSI solution was going to be a major expenditure, so why not select one major meter for residential and one major meter for commercial/industrial. Our criteria were a set number of meter forms and one type of meter. We decided on Forms 2S, 3S, 4S, 15S, and 16 S. The others we threw away. Since we knew what the CENTRON could do, we went with that meter for our residential customers.

DCSI Electronic Metering Transponder (EMT-3C) provides remote access to electrical consumption, peak demand, and related billing information through the TWACS two-way fixed network power line communication system. The EMT-3C is installed under the glass on the CENTRON meter and calculates total consumption and peak demand by registering pulse counts produced by the CENTRON meter.

The CENTRON C1S is a solid-state meter used for measuring singlephase energy consumption. The CENTRON meter's improved performance, such as low starting watts and low burden, captures energy that was not monitored in the past by electromechanical meters.

Benefits

The two-way fixed network power line communications is more economical for our rural area than RF technologies.

The CENTRON meter with its low-starting watts and low burden, captures energy that was not monitored in the past by electromechanical meters.

Reduces cost per read from \$12 to \$0.30.



results

Results

This is the single biggest project KEC has ever done. We have completed installation of 1,500 CENTRON meters with the DCSI EMT-3C units. We are working all the bugs out of the installation process. We contracted with the company who was formerly doing our meter reading service for us to do our installations. By July, we expect to start installing the remaining 16,500 CENTRON meters. Completion of the project is expected by September 2003.

Out of the 1,500 in the field, we are getting reads on 857. The others are awaiting customer information updates in the system (paper backlog). This is one thing that we have learned from this initial installation, a more streamline method of getting paper work done. We highly recommend to begin with a small number of installations because we found several processes that we needed to improve before we attempted the full 18,000.

The cost justification was not hard to do, considering the number of dead meters representing lost revenue. In addition, we were contracting our meter reading services, so this expense went away. We calculated a Return on Investment (ROI) of five years by saving several million dollars a year. Our estimate at this point, even though it is early in the process, is that we will reduce the average cost per customer per read from \$12 to \$0.30 per read. That is a tremendous savings for us, and we are excited about getting the others installed.

This story, written by Gary Nieborsky of Kootenai County Electric Cooperative, first appeared in the Itron (formerly Schlumberger Electricity, Inc.) customer magazine, Systems Watch Summer 2003.

Itron

800.635.5461
www.itron.com

Itron, Inc.
Corporate Headquarters
2111 North Molter Road
Liberty Lake, WA 99019, USA
Tel: 1.800.635.5461
Fax: 1.509.891.3355

Itron, Inc.
Oconee Electricity Metering
313-B North Highway 11
West Union, SC 29696, USA
Tel: 1.864.638.8300
Fax: 1.864.638.4950

100220CS-02

