

PARKE COUNTY REMC

INDIANA ELECTRIC COOP REPLACES LANDLINE WITH SOLECTEK BROADBAND WIRELESS LINKS.

Overview

Parke County REMC (Rural Electric Membership Cooperative) is a member-owned nonprofit electric cooperative located in south-central Indiana that serves over 12,000 residential, commercial and industrial customers.

Twelve substations are interspersed throughout the cooperative's service area, which serves portions of six Indiana counties. Previously, automatic meter reading (AMR) data, as well as SCADA hourly interval data and remote control of switching equipment, was carried over standard dial-up landlines. With such a large service area, long-distance charges applied to most of the lines coming into the supervisory system, at a cost of between \$15,000 and \$20,000 per year.



Deploying Wireless in Difficult Terrains

When CEO Greg Ternet began looking into the possibility of using wireless broadband instead of landlines, he encountered the obstacle that Indiana's hilly, forested terrain presented to the propagation of radio signals. Working with Solectek's partner, the National Rural Telecommunication Cooperative (NRTC), Parke County REMC was able to do some testing with a SkyWay-Excel 100 point-to-point link. They found that Solectek's MIMO-based Orthogonal Frequency Division Multiplexing (OFDM) technology allowed robust operation in the near or non-line-of-sight (NLOS) link conditions that obtained along the paths to their substations, where more traditional fixed wireless equipment would have been unable to close a link.

Within the next few years, Parke County REMC intends to expand the number of remote controlled switches to about 5000, and fully expects the Excel system to scale with their expansion. "We should have the capacity to do it," Ternet says, noting that Excel has been "meeting our needs" for the current application. With more than adequate "room to grow" in the current system, Ternet says that PCREMC is also looking to use the system for video surveillance of a poleyard to improve security.

In both limiting fixed expense and providing the ability to add additional function to their infrastructure management systems, Excel has provided benefits to Parke County REMC without requiring additional support. "It's very reliable," Ternet says.

"Solectek EXCEL PTP links are very reliable and operate without requiring much support."

**Greg Ternet, CEO
Parke County REMC**