

Wake Electric Uses Sensus Data Driven Solutions to Meet Goals

Rural co-op becomes one of the most progressive in the nation

CASE STUDY

Identify Goals

- Provide excellent member service at affordable rates
- Become one of the most progressive, innovative rural cooperatives in the nation

Determine Approach

- Add applications to the FlexNet communications system
- Turn data into actionable insights with data analytics

Reach Farther

- Explore additional opportunities to conserve with voltage reduction
- Implement distribution automation system

Located in Wake Forest, North Carolina, Wake Electric Membership Corporation (Wake Electric) is a rural electric cooperative serving 38,000 customers. With the deployment of the Sensus FlexNet communication network in 2012, the utility established a reliable and scalable infrastructure that enabled it to improve billing accuracy and system management while reducing customer service calls. However, that was just the beginning.

“From my work so far, I’ve learned that so many co-ops and utilities implement the technology for a single application and fail to maximize their investment,” said Don Bowman, Manager of Engineering at Wake Electric. “There is so much more that you can derive from Sensus solutions and the data they provide.”

A forward-thinking organization, Wake Electric now intends to expand its reach and establish itself among the nation’s most progressive co-ops, using Sensus solutions to:

- Maximize asset life and system design
- Streamline outage management
- Improve the customer experience

Key to realizing these goals is collaborating between departments to hone in on the many types of data being collected and analyzing that data to turn it into actionable insights.

According to Bowman, “Data analytics is about much more than automatically generating reports. It’s really about adding data from multiple systems and breaking down silos companywide.”

By integrating information from their scaling, GIS, billing and other systems, the Wake

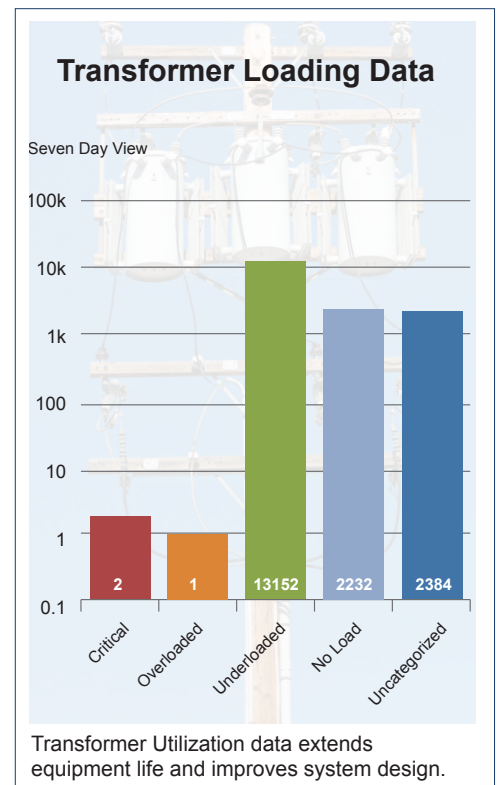
Electric team is well on their way to the next phase of their technology journey.

Maximize Asset Life and System Design

Starting with voltage alarms, Wake Electric was able to use Sensus Data Analytics and the Transformer Utilization application to set up real-time notification for voltage issues, extending transformer life and improving overall system design.

“Because of these alarms, we could see with one glance that we needed to change a transformer,” shared Bowman.

Of the 17,000 transformers on the system, 13,152 were not used to capacity. While it is common to purposefully oversize transformers to minimize future issues, the data showed that many of



Wake Electric's transformers were severely underutilized. Armed with that knowledge, the organization can now move forward and reduce costs by right sizing future replacements.

Combining voltage alarms with GIS data, the co-op has been able to pinpoint the source of such alarms. In one case, this mapping pointed them not only to a specific subdivision with voltage issues but also helped identify a specific part—a regulator—that needed to be moved to fix the issue.

“By partnering with Sensus, we’re positioned to reach farther to continue improving the quality of life in our communities.”

Streamline Outage Management

Power outages are challenging for all co-ops and their customers, but Sensus technology puts great customer service within reach. With the FlexNet communication network, meters send outage information directly to Wake Electric's established outage management system via a multi-speed interface.

By integrating Sensus technologies with outage management, operational efficiency has improved since employees no longer have to manually store data in the system. Rather, they are free to focus on quickly bringing service back to customers whenever outages occur. What's more, customers no longer have to call to notify the co-op that service is lost. Instead, Wake Electric can make the first call alerting them that a solution is on the way.



Grady Perry, Wake Electric Installer

Bringing home the data is just the first step. It must be thoroughly analyzed and the results then shared with multiple departments inside the company.

Improve the Customer Experience

The technology partnership with Sensus enables the co-op to improve customer service by providing members with meaningful data.

They now benefit from an online portal that allows them to review monthly, daily and even hourly usage data. They can compare this data to previous months and view corresponding weather information, all through the Wake Electric app or website. With the weather data, they can easily connect usage spikes to particularly hot or cold weather.

The more data customers get, the more they are interested in how it affects their energy usage and bills. They can enter an event, such as purchasing a new water heater, and compare usage before and after. Each piece of

Wake Electric draws from seemingly endless sources of data: systems like workforce management, accounting, mapping, CIS, meter data management and even vehicle location.

information empowers them to make some impactful decisions. Should they adjust the thermostat? Should they leave a light on? Small decisions with a potentially big return, especially when you factor in how many customers want to be part of conserving energy.

Reach Farther

Wake Electric realizes that their technology implementation is a journey. Already, they've begun testing conservation voltage reduction programs and will expand those efforts. The implementation of a distribution automation system is not far on the horizon either.

“We're pleased with the results so far, and eager to see how else Sensus solutions can help us provide excellent service at affordable rates,” notes Bowman. “By partnering with Sensus, we're positioned to reach farther to continue improving the quality of life in our communities.”

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