



### Smart Meter Investments Support Rural Economy in Arkansas

Woodruff Electric Cooperative (Woodruff) serves customers in seven eastern Arkansas counties. The proportion of residents living in poverty in those counties is more than double the national average. As a member-owned rural electric cooperative, Woodruff is connected to its customers and engaged in economic development efforts to bring more jobs and higher incomes to local communities. In order to bring the capital investment and its accompanying economic benefits to the region without delay, Woodruff completed its project installation ahead of schedule.

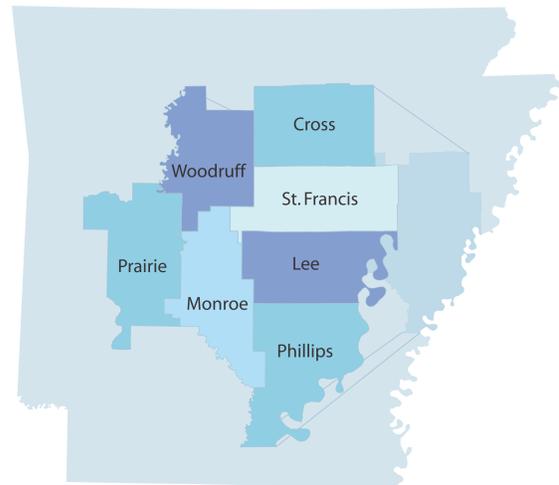
With a total budget of \$5 million, funded partially with nearly \$2.4 million in Recovery Act funding from the U.S. Department of Energy (DOE), Woodruff was able to install 14,450 smart meters and supporting communication infrastructure. All residential and commercial customers with standard single-phase electric service now have smart meters, which provide additional data to Woodruff, resulting in better and more cost-efficient service. The DOE financial assistance enabled Woodruff to speed up its smart meter deployment by at least five years.

#### Financial and Service Benefits to Customers

“As a member-owned not-for-profit cooperative, keeping electricity reliable, safe, and affordable is job number one. We are eager to pass operational savings from these smart grid investments to our members,” says Billy C. Martin, III, President and CEO of Woodruff. Now that most customers have smart meters, Woodruff is able to complete service connections remotely without dispatching trucks and field crews. Since the smart meters help monitor grid conditions, the need to send crews to the field to conduct line voltage measurements has diminished.

Due to the new technology, between March and July of 2011, Woodruff was able to avoid more than 3,000 truck rolls, saving Woodruff and its customers approximately \$600,000. In addition, thanks to the automated operations of the meters, after-hours reconnect fees have been reduced from \$115 to \$50 for new customers and those who may have lost service because they have gotten behind in their bills. This fee reduction is a meaningful benefit for financially distressed customers.

“In some ways, the increased level of service we can provide is even more important than the financial benefits,” Martin says. “The Arkansas Public Service Commission allows utilities three days to activate a



Seven eastern Arkansas counties served by Woodruff Electric Cooperative.

## Case Study--Woodruff

service connection. With these new meters, we can make a connection in 15 minutes after we receive the request.”

Smart meters are enabling Woodruff to be more proactive in its operations. With less time spent doing service connections and meter reads, staff can be redeployed to other duties, such as identifying and replacing aging equipment, tree trimming, and other preventive maintenance. Such activities help the utility reduce the frequency and duration of outages. “We are finding problems and fixing them before they affect service,” Martin sums up.

Woodruff is exploring other service improvements and new programs that smart meters enable. In the coming year, for example, Woodruff is planning a time-of-use pricing pilot to provide financial incentives for customers to change their consumption and shift demand from on- to off-peak periods, thus creating new opportunities to manage costs and keep electricity affordable for the citizens and business of rural Arkansas.



Installing Woodruff's new smart meters.

### **New Technologies Bring New Employment Opportunities**

Smart meters, supporting communications infrastructure, and data management software require new skills from Woodruff personnel. “I see us needing a more skilled workforce. We plan to staff up with engineers and information technology professionals who can analyze the mountains of data that the smart meters produce and help us utilize that data to improve our operations and management,” says

Martin. “We are going to have to ask our staff members to shift to different departments and bring in new talent.” In rural Arkansas, such high-paying technical jobs are a welcome addition.

### **First Completed Smart Grid Investment Grant Installation**

Woodruff's smart meter installation was completed in January 2011, making it the first Smart Grid Investment Grant recipient to complete the installation phase of its project. “A close partnership and good communication with our smart meter vendor helped smooth out the process, enabling us to complete the installation without any major delays or problems,” says Martin.

With its swift and successful project implementation, Woodruff has proven that utilities of all types and sizes can deploy smart grid technologies to strengthen the grid, improve service, and save money for customers.

## Learn More

The American Recovery and Reinvestment Act of 2009 provided DOE with \$4.5 billion to fund projects that modernize the Nation's electricity infrastructure. For more information visit [www.smartgrid.gov](http://www.smartgrid.gov) or [www.oe.energy.gov](http://www.oe.energy.gov). There are five recent reports available for download:

- *Smart Grid Investment Grant Progress Report, July 2012*
- *Demand Reductions from the Application of Advanced Metering Infrastructure, Time-Based Rates, and Customer Systems – Initial Results, December 2012*
- *Operations and Maintenance Savings from the Application of Advanced Metering Infrastructure – Initial Results, December 2012*
- *Reliability Improvements from the Application of Distribution Automation Technologies and Systems – Initial Results, December 2012*
- *Application of Automated Controls for Voltage and Reactive Power Management – Initial Results, December 2012*