

Stanton County Public Power District

Advanced Metering Infrastructure Initiative

Abstract

Stanton County Public Power District’s (SCPPD) Advanced Metering Infrastructure Initiative project deploys 2,315 smart meters to cover all customers in the service territory. The project provides automatic meter reading and improved outage detection and response. The project extends smart meter coverage from 453 to 2,768 meters and uses existing radio frequency and power-line-carrier communications networks for data collection.

Smart Grid Features

Communications infrastructure includes the existing power-line-carrier communications infrastructure for two-way communication between meters and substations. Current two-way communications for the meter data backhaul from the substations to the utility’s office is a 900-MHz radio system.

Advanced metering infrastructure (AMI) includes a deployment of 2,315 smart meters. The build out is accomplished in three phases: phase one covers the change out of meters in the City of Stanton and phases two and three cover the change out of all meters in rural portions of SCPPD’s service territory. The two-way communication and automated meter reading enable SCPPD to reduce operating costs, fuel usage, and greenhouse gas emissions due to fewer truck rolls and vehicle miles traveled. The meters provide improved outage detection and reduce the time to determine outage locations and the number of customers affected. Furthermore, the power quality monitoring feature enabled by the smart meters will enhance SCPPD’s capability to identify low voltage issues on specific distribution circuits.

Timeline

Key Milestones	Target Dates
AMI asset deployment begins	Q3 2010
AMI asset deployment ends	Q2 2011

Contact Information

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At-A-Glance

Recipient: Stanton County Public Power District

State: Nebraska

NERC Region: Midwest Reliability Organization

Total Budget: \$794,000

Federal Share: \$397,000

Project Type: Advanced Metering Infrastructure

Equipment

- 2,315 Smart Meters

Key Targeted Benefits

- Reduced Meter Reading Costs
- Reduced Operating and Maintenance Costs
- Reduced Electricity Costs for Customers
- Reduced Truck Fleet Fuel Usage
- Reduced Greenhouse Gas and Criteria Pollutant Emissions