

## Navajo Tribal Utility Authority

### Advanced Metering Infrastructure Project

#### Abstract

The Navajo Tribal Utility Authority's (NTUA) Advanced Metering Infrastructure (AMI) project deploys 28,000 residential smart meters and supporting communications and information technologies. The project provides automated meter reading, improved outage detection and response, power quality monitoring, and tamper detection capabilities. The communications system relays customer electricity data to NTUA, where the new meter data management system helps NTUA leverage the data to better manage peak demand, which results in reduced system-wide capacity needs, electrical losses, and operations and maintenance costs.

#### Smart Grid Features

**Communications infrastructure** includes radio networks (900-MHz system) and wireless carrier backhaul systems. The project deploys a head end system that monitors and stores all data collected from the meters and relays the data to other enterprise systems that are integrated with the new AMI system, including billing and outage management.

**Advanced metering infrastructure** includes the deployment of 28,000 smart meters to NTUA's residential customers. The deployment also includes a new meter data management system. The new communications infrastructure and automated operations of the smart meters enable NTUA to reduce operating and maintenance costs and improve service reliability through faster outage detection and response.

#### Timeline

Key Milestones	Target Dates
AMI asset deployment begins	Q4 2010
AMI asset deployment ends	Q4 2012

#### Contact Information

Srinivasa Venigalla, P.E.  
Electrical Planning Engineer  
Navajo Tribal Utility Authority  
e-mail: SrinivasaV@ntua.com

Recipient Team Website: [www.ntua.com](http://www.ntua.com)

#### At-A-Glance

**Recipient:** Navajo Tribal Utility Authority

**State:** Arizona, New Mexico, Utah

**NERC Region:** Western Electricity Coordinating Council

**Total Budget:** \$ 9,983,500

**Federal Share:** \$4,991,750

**Project Type:** Advanced Metering Infrastructure

#### Equipment

- 28,000 Smart Meters
- AMI Communication Systems
  - Meter Communications Network
  - Backhaul Communications
- Meter Data Management System

#### Key Targeted Benefits

- Reduced Meter Reading Costs
- Reduced Operating and Maintenance Costs
- Improved Electric Service Reliability and Power Quality
- Reduced Electricity Costs for Customers
- Reduced Truck Fleet Fuel Usage
- Reduced Greenhouse Gas and Criteria Pollutant Emissions