

# The CRN Smart Grid Demonstration Project

Building a Smarter Grid for Co-op Member Consumers

## SMART GRID CHALLENGES AND TECHNOLOGY



National Rural Electric  
Cooperative Association

A Touchstone Energy® Cooperative



# Flavors of Technology

Engagement

State

Control

# Demonstration Activities

Categories	Deployments & Studies
<b>Demand Management</b>	In-Home Displays
	Demand Response over AMI
	Interactive Thermal Storage
	Prepaid Metering
<b>Distribution Automation</b>	Smart Feeder Switching
	Advanced Volt/VAR
	Conservation Voltage Reduction
	Renewables
<b>Enabling Technologies</b>	AMI
	Meter Data Management (Enhanced!)
	Communications
	SCADA

**Plus advances in cyber security and MultiSpeak®**

# Challenges in Building the Smart Grid

- Consumer Acceptance
- The Volume of Data
- Communications
- Cyber Security
- Interoperability
- Return on Investment