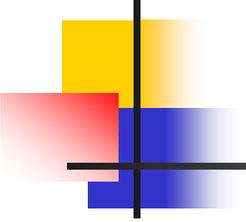




USDA-Rural Utilities Service (RUS) Smart Grid Update - Dec. 2009

- Background
 - RUS electric loan portfolio \$40 billion; in FY2009: 209 loans/ loan guarantees totaling \$6.6 billion
 - Rural electric cooperatives own and maintain 42 percent of the nation's distribution infrastructure
 - Coops' advanced metering penetration increased from 3.8 percent in 2006 to 16.4 percent in 2008
 - Half of coops installed some AMI on their systems, and 30 percent of coops have begun to integrate their AMI with other systems on the grid
 - MultiSpeak® Initiative launched 10 years ago by NRECA and leading software vendors. MultiSpeak enables interoperability and connectivity – more information www.multispeak.org



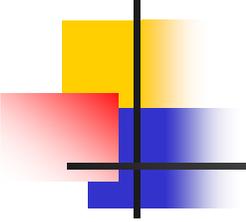
USDA-Rural Utilities Service (RUS) Smart Grid Update - Dec. 2009 (continued)

- Key Areas of Interest
 - *Time sensitive pricing and in-home energy usage pilots in low-income areas*
 - *Self-healing feeders for hurricane and flooding-prone regions*
 - *Demand response and automated meter reading technologies to reduce agriculture's carbon footprint*
- USDA – USAID (India) partnership expands to include smart grid development

USDA-Rural Utilities Service (RUS)

Smart Grid Update – Dec. 2009 (continued)

- Co-ops Win \$33.9 million from DOE for Smart Grid Demonstration Project. (Other half from coops' general funds and RUS loans.)
 - Brings together 27 rural electric cooperatives in 10 states varying in size, operation, and region, to install more than 153,000 smart grid components
 - The core of the project comprises installation of the following:
 - 131,720 smart meter modules
 - 18,480 demand response switches
 - 3,958 in-home displays/smart thermostats
 - 2,825 ZigBee gateways
 - 169 voltage sensors
 - 247 fault detectors
 - Represents the first opportunity to conduct a nationwide pilot extending and testing end-to-end connectivity – from the power plant to the consumer's home – and interoperability using MultiSpeak®

A decorative graphic consisting of overlapping colored squares (yellow, red, blue) and a black crosshair.

USDA-Rural Utilities Service (RUS) Smart Grid Update – Dec. 2009 (continued)

- More than 300 electric cooperatives applied for Smart Grid Investments
- More than 50 electric coops and public power districts in 15 states receive over \$215 Million for Smart Grid Investments (October 2009)