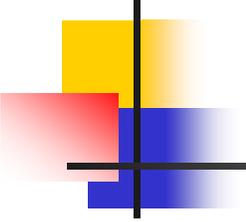




# USDA-Rural Utilities Service (RUS) Smart Grid Update - Dec. 2009

- 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](http://www.multispeak.org)



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

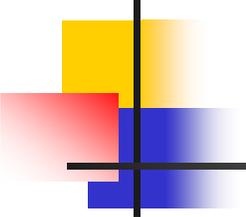
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- Key Areas of Interest
  - *Time sensitive pricing and in-home energy usage pilots in low-income areas*
  - *Self-healing feeders for hurricane and flooding-prone regions*
  - *Demand response and automated meter reading technologies to reduce agriculture's 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)

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- 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)