



A POLICY FRAMEWORK FOR
THE 21ST CENTURY GRID:
Enabling Our Secure Energy Future

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Chapter 2: Progress to Date

The Energy Independence and Security Act of 2007 made it “the policy of the United States to support the modernization” of the electrical grid (U.S. Congress 2007). Over the last several years, many states and utilities have already taken important steps to take advantage of smart grid technologies and programs to give rise to the potential benefits discussed herein. Typically, these upgrades enable the grid to operate more efficiently.

The Obama Administration has expanded on previous efforts to modernize the grid through the Recovery Act’s \$4.5 billion investment for electricity delivery and energy reliability activities to modernize the electric grid (U.S. Congress 2009). These funds are being matched by more than \$5.5 billion from public and private stakeholders to fund 141 smart grid grants and cooperative agreements for smart grid and energy storage technologies across the country, with additional funding going towards workforce training (Executive Office of the President 2010a, pp. 37, Energy.gov 2011b, Energy.gov 2010c). Moreover, RUS provided a record \$7.1 billion in loans in 2010 to support the modernization of the electric infrastructure serving rural America, including more than \$152 million for smart meter deployments alone.⁵

Spurred by Recovery Act investments, utilities and state regulators are leading the transition to a smarter grid. In some cases, smart grid technology is being deployed on a broad scale. For example, the Vermont Transco is using Recovery Act funding to institute a statewide meter data management system and modernize the technology used in the state’s electricity distribution system (SmartGrid.gov 2010). Similarly, in Texas, following legislation to encourage deployment of smart meters (PUCT 2008), all major transmission and distribution (T&D) providers have public utility commission (PUC)-approved plans in place to deploy Advanced Metering Infrastructure (AMI) in their service areas (PUCT 2011, pp. 3). These T&D service providers have already deployed 2.5 million meters and will have more than 6 million in place by 2015 (PUCT 2011, pp. 3). The new smart meters being deployed in Texas enable consumers to access their timely energy usage data online through a web portal, www.smartmetertexas.com. Consequently, Texans can use the data with third-party devices and services of their choosing to find ways to save money and energy (AEP 2011b).

Case Study:

Salt River Project (SRP), Arizona

Since 2003, SRP has installed approximately 500,000 smart meters in its service area. SRP estimates that this new equipment has enabled it to remotely respond to more than 748,000 customer service requests. As a result, SRP has saved more than 249,000 labor hours by avoiding unnecessary service calls, has avoided 1.3 million unnecessary driving miles, and has conserved 135,000 gallons of fuel. As a consequence of the energy savings, cost reductions, and operational benefits of the smart meters, SRP is now introducing an additional 500,000 meters to its service area with the help of a \$56.9 million ARRA Smart Grid Investment Grant.

Source: SRP (2010)

5. \$7.1 billion is found in the United States Department of Agriculture, FY 2012 USDA Budget Summary and Annual Performance Plan, <http://www.obpa.usda.gov/budsum/FY12budsum.pdf>, pp. 48. The \$152 million for smart meter deployments is derived from an internal USDA Rural Utilities Service Electric Program analysis of lending over the year.