

Smart Grid Act of 2015 Summary

America's trillion-dollar electricity grid is ill equipped to meet the needs of the future. Grid outages and interruptions are estimated to cost taxpayers \$150 billion annually, according to the U.S. Department of Energy (DOE). At the same time, electricity demand is expected to grow 24% by 2040 and electricity costs for American consumers are expected to increase 18% over that same period.

Yet the news is not all grim, the U.S. Department of Energy estimates that \$46 billion to \$117 billion could be saved in the avoided construction costs of power plants and transmission lines over 20 years, if the United States transitions to smart grid technologies.

This bill promotes a more efficient and flexible electricity grid—an electricity grid that supports low-cost renewable energy, electric vehicles and energy storage, and helps consumers save energy while reducing greenhouse gas emissions. The bill establishes cost-share grant programs, and sets DOE on a path to help create technology communication standards that will pave the way for innovation in new household appliances and save consumer dollars.

This legislation will:

- Establish a DOE competitive grant program for electric utilities, public utility commissions, regional transmission organizations, automakers and other entities to promote the modernization of the electricity grid. The new authorization would focus on six critical areas the electricity industry has identified: fine-tuning energy use based on real-time energy prices; innovating power markets to value new energy technologies; determining new retail electricity structures to account for shifts in energy production and the time-value of energy; energy storage; and smart electric vehicle charging. All grant programs would require an equal matching investment from the grant recipient, to ensure that beneficiaries are also held accountable and to maximize private investment.
- Direct DOE to establish working groups among grant recipients in all of the above areas to exchange information and ideas to further development of a modernized electric grid, and to generate a report on findings.
- Re-authorize Section 1306 of the Energy Independence and Savings Act of 2007 (EISA2007) by extending the program for another five years. This program provides a federal matching fund for smart grid investments made by electric utilities, appliance manufacturers, businesses and homeowners.
- Direct DOE to begin developing standards for data sharing and communication (“interoperability standards”) between electricity users and providers on the grid to improve grid efficiency and reliability.