



S. 1243, the Grid Modernization Act of 2015

By Sen. Maria Cantwell (D-Wash.)

The Grid Modernization Act of 2015 addresses the emergence of disruptive new electric power technologies that are empowering consumers and challenging existing business models for delivering electricity.

The Act would double the federal investment in electric grid modernization activities, create a more flexible and efficient grid, help consumers take advantage of advanced technology, and lay a strong foundation for American innovation to serve consumers around the world.

Funding. The Act authorizes \$200 million per year for the non-cybersecurity activities of the Office of Electricity Delivery and Energy Reliability, doubling current funding.

Grid storage. The Act authorizes a research and development program focused exclusively on grid-scale storage to accelerate the current public and private sector activity in this critical game-changing technology.

Demonstration programs. The Act creates two new programs to address the need for:

- (1) **Advanced distribution systems** that can be observed as a network in real-time and take full advantage of growing distributed generation, demand response, and other advanced devices.
- (2) **Resilient communities** that rely on microgrids coupled with grid storage to withstand and recover from disruptions including climate-driven extreme weather.

Resilience standard. The Act builds on precedents in the Public Utility Regulatory Policies Act by proposing a new requirement for utilities and states to consider resilience, the ability of the electric grid to adapt to changing conditions and withstand and rapidly recover from disruptions, as an integral part of future grid investments.

Tools for states. The Act requires the Department of Energy to develop new tools that can be used “off the shelf” by state regulators and regional planners, including:

- (1) **Targeted analysis** of the changing electric generation mix across the country, from the broad architecture of the grid itself to region-specific scenarios and modeling.

- (2) Voluntary “**model pathways**” for modernizing the grid that show illustrative policies (for example, how to improve data visualization and real-time situational awareness) while acknowledging different priorities, electric systems, and rate structures across states.
 - (3) Model **performance metrics** that can be adopted for planning, ratemaking, and cost recovery purposes for advanced technology such as electric vehicles and storage.
 - (4) **Distribution planning** assistance to help interested states and regions develop more sophisticated distribution plans.
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