114TH CONGRESS
1ST SESSION

S. 1207

To direct the Secretary of Energy to establish a grant program under which the Secretary shall make grants to eligible partnerships to provide for the transformation of the electric grid by the year 2030, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 6, 2015

Ms. HIRONO introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To direct the Secretary of Energy to establish a grant program under which the Secretary shall make grants to eligible partnerships to provide for the transformation of the electric grid by the year 2030, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Next Generation Electric Systems Act''.

SEC. 2. GRANT PROGRAM FOR PROJECTS TO DESIGN AND DEVELOP TRANSFORMATIVE NEXT GENERATION ELECTRIC SYSTEMS.

(a) IN GENERAL.—The Secretary of Energy (acting through the Assistant Secretary of the Office of Electricity Delivery and Energy Reliability) (referred to in this Act as the ''Secretary'') shall establish a grant program under which the Secretary shall make grants to eligible partnerships to develop and carry out eligible projects related to achieving the transformation of the future electric grid by the year 2030 using a comprehensive approach to electric system design and architecture.

(b) ELIGIBLE PROJECTS.—To be eligible for a grant under subsection (a), a project—

(1) shall be designed to improve the performance and efficiency of the future electric grid, while ensuring the continued provision of safe, secure, reliable, and affordable power; and

(2) may include projects to design, develop, and test—

(A) feasible, optimal next generation electricity delivery systems, from generation through consumption, including end-use applications;

(B) the role that regulated utilities and market-driven entities, including third-party nonregulated services providers, may play in an electric system in which distributed energy resources and retail and wholesale level ancillary services expand;

(C) optimal and innovative, comprehensive grid infrastructure designs that would ensure reliable, cost-effective, safe, and secure integration and management of variable and distributed energy resources, including projects related to distributed generation, combined heat and power, microgrids, energy storage, electric vehicles, energy efficiency, demand response, and intelligent loads;

(D) optimal grid design solutions to ensure grid reliability and resiliency;

(E) the integration and interoperability of telecommunications, information technology, operational technologies, or other systems and technologies with the electric grid to support the management of the future, next generation, dynamic and changing electric system; and

(F) solutions to overcoming technological, regulatory, business model, and market barriers to achieve the transition and transformation to the future electric grid.

(c) DESCRIPTION OF ELIGIBLE PARTNERSHIP.—An eligible partnership referred to in subsection (a) means a group of 2 or more entities that—

(1) may include any institution of higher education, National Laboratory, representative of a State or local government, representative of an Indian tribe, Federal power marketing administration, industry expert, or nonprofit industry trade association; and

(2) shall include at least 1 of any of the following:

(A) An investor-owned electric utility.

(B) A publicly owned utility.

(C) A technology provider.

(D) A rural electric cooperative.

(E) A Regional Transmission Organization.

(F) An Independent System Operator.

(d) APPLICATION.—In order to receive a grant under this section, an eligible partnership shall submit to the Secretary an application at such time, in such form, and containing such information as the Secretary may prescribe, including details about the partnership and proposed project.

(e) SELECTION COMMITTEE.—Not later than 90 days after the date of enactment of this Act, the Secretary shall establish a selection committee, comprised of technical experts, to make recommendations, based on the criteria described in subsection (f), to the Secretary for the award of grants under this section to 2 or more eligible partnerships.

(f) SELECTION CRITERIA.—

(1) IN GENERAL.—The Secretary shall make grants under subsection (a) based on the following criteria:

(A) The scope and diversity of the eligible partnership with respect to representation of stakeholders and geographic locations.

(B) The demonstrated ability of the eligible partnership to provide leadership within the industry in promoting transformative innovation in electricity systems, using a comprehensive or holistic approach, especially with respect to system design or architecture.

(C) The extent to which a project would develop and carry out commercially available or emerging technologies that would be scalable and replicable.

(D) The extent to which a project would—

(i) improve electric reliability, resiliency, security, and safety;

(ii) provide consumer benefits;

(iii) drive economic growth; or

(iv) achieve other grid modernization policy or technical goals.

(E) The extent to which a project would provide an innovative conceptual or technical approach to the operation of the electric grid looking to the year 2030 and beyond.

(F) The demonstrated ability of the eligible partnership to leverage prior Federal or local investments.

(G) The extent to which a project would advance a financially viable future model for electricity market participants, including utilities and third-party entities, that provides all consumers with fair and equitable options to meet the electric energy needs of the consumers, while balancing societal, and individual consumer, interests.

(2) PRIORITY FOR PROJECTS PROVIDING COST SHARE.—In selecting eligible partnerships to make grants to under subsection (a), the Secretary shall

give priority to eligible partnerships proposing projects for which a cost-share is to be provided.

SEC. 3. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this Act for each of fiscal years 2016 through 2020.

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