

116TH CONGRESS  
1ST SESSION

**S.** \_\_\_\_\_

To direct the Secretary of Energy to establish a grant program for the transformation of the electric grid, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

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Ms. HIRONO introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

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## A BILL

To direct the Secretary of Energy to establish a grant program for the transformation of the electric grid, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Next Generation Elec-  
5 tric Systems Act of 2019”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) **ELIGIBLE ENTITY.**—The term “eligible enti-  
9 ty” means a partnership consisting of 2 or more en-  
10 tities—

1 (A) 1 or more of which shall be—

2 (i) an electric utility (as defined in  
3 section 3(22)(A) of the Federal Power Act  
4 (16 U.S.C. 796(22)(A)));

5 (ii) a Regional Transmission Organi-  
6 zation (as defined in section 3 of the Fed-  
7 eral Power Act (16 U.S.C. 796)); or

8 (iii) an Independent System Operator  
9 (as defined in that section); and

10 (B) 1 or more of which may be—

11 (i) an institution of higher education  
12 (as defined in section 101(a) of the Higher  
13 Education Act of 1965 (20 U.S.C.  
14 1001(a)));

15 (ii) a National Laboratory (as defined  
16 in section 2 of the Energy Policy Act of  
17 2005 (42 U.S.C. 15801));

18 (iii) a State or local government or  
19 other public body created by or pursuant  
20 to State law;

21 (iv) an Indian tribe (as defined in sec-  
22 tion 4 of the Indian Self-Determination  
23 and Education Assistance Act (25 U.S.C.  
24 5304)) or tribal organization (as defined in

1 section 3765 of title 38, United States  
2 Code);

3 (v) a Federal power marketing admin-  
4 istration;

5 (vi) an entity that develops and pro-  
6 vides technology; or

7 (vii) an organization described in sec-  
8 tion 501(c)(3) of the Internal Revenue  
9 Code of 1986.

10 (2) FEDERAL POWER MARKETING ADMINISTRA-  
11 TION.—The term “Federal power marketing admin-  
12 istration” means—

13 (A) the Bonneville Power Administration;

14 (B) the Southeastern Power Administra-  
15 tion;

16 (C) the Southwestern Power Administra-  
17 tion; and

18 (D) the Western Area Power Administra-  
19 tion.

20 (3) SECRETARY.—The term “Secretary” means  
21 the Secretary of Energy.

22 **SEC. 3. GRID MODERNIZATION TECHNOLOGY DEMONSTRA-**  
23 **TION PROJECTS.**

24 (a) IN GENERAL.—The Secretary shall establish a  
25 grant program under which the Secretary shall award

1 grants to eligible entities to carry out eligible projects de-  
2 scribed in subsection (b) relating to the modernization of  
3 the electric grid, including—

4 (1) projects for the application of technologies  
5 to improve observability, stability, advanced controls,  
6 and prediction of system performance on the dis-  
7 tribution system; and

8 (2) projects relating to transmission system  
9 interconnections.

10 (b) **ELIGIBLE PROJECTS.**—An eligible project re-  
11 ferred to in subsection (a) is a demonstration project  
12 that—

13 (1) is designed to improve the resiliency, per-  
14 formance, and efficiency of the future electric grid,  
15 while ensuring the continued provision of safe, se-  
16 cure, reliable, and affordable power;

17 (2) demonstrates secure integration and man-  
18 agement of 2 or more energy resources, including  
19 distributed energy generation, combined heat and  
20 power, microgrids, energy storage, electric vehicles,  
21 energy efficiency, demand response, intelligent loads,  
22 and which may include resources behind the cus-  
23 tomer meter;

1           (3) demonstrates secure integration and inter-  
2 operability of communications and information tech-  
3 nologies relating to the electric grid;

4           (4) includes the development of a cybersecurity  
5 plan written in accordance with guidelines developed  
6 by the Secretary;

7           (5) includes a privacy effects analysis that eval-  
8 uates the project in accordance with the Voluntary  
9 Code of Conduct of the Department of Energy, com-  
10 monly known as the “DataGuard Energy Data Pri-  
11 vacy Program”, or the most recent revisions to the  
12 privacy program of the Department of Energy; and

13           (6) satisfies the eligibility requirements de-  
14 scribed in section 545(a) of the Energy Security and  
15 Independence Act of 2007 (42 U.S.C. 17155(a)).

16       (c) COMMUNITY OUTREACH.—An eligible project car-  
17 ried out using a grant awarded under subsection (a) may  
18 include education and outreach with community-based or-  
19 ganizations and other private sector entities to help inform  
20 the objectives of the project and communicate the results  
21 of the project.

22 **SEC. 4. AUTHORIZATION OF APPROPRIATIONS.**

23       There is authorized to be appropriated to the Sec-  
24 retary \$50,000,000 to carry out this Act for each of fiscal  
25 years 2020 through 2028.