

114TH CONGRESS
1ST SESSION

S. 1227

To require the Secretary of Energy to develop an implementation strategy to promote the development of hybrid micro-grid systems for isolated communities.

IN THE SENATE OF THE UNITED STATES

MAY 6, 2015

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

A BILL

To require the Secretary of Energy to develop an implementation strategy to promote the development of hybrid micro-grid systems for isolated communities.

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. HYBRID MICRO-GRID SYSTEMS.**

4 (a) DEFINITIONS.—In this section:

5 (1) HYBRID MICRO-GRID SYSTEM.—The term
6 “hybrid micro-grid system” means a stand-alone
7 electrical system that is comprised of conventional
8 generation and at least 1 alternative energy re-
9 source.

1 (2) ISOLATED COMMUNITY.—The term “iso-
2 lated community” means a community that is pow-
3 ered by a stand-alone electric generation and dis-
4 tribution system without the economic and reliability
5 benefits of connection to a regional electric grid.

6 (3) SECRETARY.—The term “Secretary” means
7 the Secretary of Energy.

8 (4) STRATEGY.—The term “strategy” means
9 the strategy developed pursuant to subsection (b).

10 (b) STRATEGY.—The Secretary shall develop an im-
11 plementation strategy to promote the development of hy-
12 brid micro-grid systems for isolated communities, particu-
13 larly for those communities exposed to extreme weather
14 conditions and high costs of energy, including electricity,
15 space heating and cooling, and transportation.

16 (c) REQUIREMENTS.—In developing the strategy, the
17 Secretary shall consider—

18 (1) establishing future targets for the economic
19 displacement of conventional generation using hybrid
20 micro-grid systems, including displacement of con-
21 ventional generation used for electric power genera-
22 tion, heating and cooling, and transportation;

23 (2) the potential for renewable resources, in-
24 cluding wind, solar, and hydropower, to be inte-
25 grated into a hybrid micro-grid system;

1 (3) opportunities for improving the efficiency of
2 existing hybrid micro-grid systems;

3 (4) the capacity of the local workforce to oper-
4 ate, maintain, and repair a hybrid micro-grid sys-
5 tem;

6 (5) opportunities to develop the capacity of the
7 local workforce to operate, maintain, and repair a
8 hybrid micro-grid system;

9 (6) leveraging existing capacity within local or
10 regional research organizations, such as organiza-
11 tions based at institutions of higher education, to
12 support development of hybrid micro-grid systems,
13 including by testing novel components and systems
14 prior to field deployment;

15 (7) the need for basic infrastructure to develop,
16 deploy, and sustain a hybrid micro-grid system;

17 (8) input of traditional knowledge from local
18 leaders of isolated communities in the development
19 of a hybrid micro-grid system;

20 (9) the impact of hybrid micro-grid systems on
21 defense, homeland security, economic development,
22 and environmental interests;

23 (10) opportunities to leverage existing inter-
24 agency coordination efforts and recommendations for
25 new interagency coordination efforts to minimize un-

1 necessary overhead, mobilization, and other project
2 costs; and

3 (11) any other criteria the Secretary determines
4 appropriate.

5 (d) REPORT.—Not later than 180 days after the date
6 of enactment of this Act, and annually thereafter, the Sec-
7 retary shall submit to the Committee on Energy and Nat-
8 ural Resources of the Senate and the Committee on En-
9 ergy and Commerce of the House of Representatives a re-
10 port on the status of the strategy and efforts to implement
11 the strategy.

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