

115TH CONGRESS
1ST SESSION

S. 1036

To promote research, development, and demonstration of marine and hydrokinetic renewable energy technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 3, 2017

Mr. WYDEN (for himself, Mr. KING, Mr. MERKLEY, Mr. SCHATZ, and Ms. HIRONO) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To promote research, development, and demonstration of marine and hydrokinetic renewable energy technologies, 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 “Marine Energy Act”.

5 **SEC. 2. DEFINITION OF MARINE AND HYDROKINETIC RE-**
6 **NEWABLE ENERGY.**

7 Section 632 of the Energy Independence and Security
8 Act of 2007 (42 U.S.C. 17211) is amended in the matter
9 preceding paragraph (1) by striking “electrical”.

1 **SEC. 3. MARINE AND HYDROKINETIC RENEWABLE ENERGY**
2 **RESEARCH AND DEVELOPMENT.**

3 Section 633 of the Energy Independence and Security
4 Act of 2007 (42 U.S.C. 17212) is amended to read as
5 follows:

6 **“SEC. 633. MARINE AND HYDROKINETIC RENEWABLE EN-**
7 **ERGY RESEARCH AND DEVELOPMENT.**

8 “The Secretary, in consultation with the Secretary of
9 the Interior, the Secretary of Commerce, and the Federal
10 Energy Regulatory Commission, shall carry out a program
11 of research, development, demonstration, and commercial
12 application to accelerate the introduction of marine and
13 hydrokinetic renewable energy production into the United
14 States energy supply, giving priority to fostering acceler-
15 ated research, development, and commercialization of
16 technology, including programs—

17 “(1) to assist technology development to im-
18 prove the components, processes, and systems used
19 for power generation from marine and hydrokinetic
20 renewable energy resources;

21 “(2) to establish critical testing infrastructure
22 necessary—

23 “(A) to cost effectively and efficiently test
24 and prove marine and hydrokinetic renewable
25 energy devices; and

1 “(B) to accelerate the technological readi-
2 ness and commercialization of those devices;

3 “(3) to support efforts to increase the efficiency
4 of energy conversion, lower the cost, increase the
5 use, improve the reliability, and demonstrate the ap-
6 plicability of marine and hydrokinetic renewable en-
7 ergy technologies by participating in demonstration
8 projects;

9 “(4) to investigate variability issues and the ef-
10 ficient and reliable integration of marine and
11 hydrokinetic renewable energy with the utility grid;

12 “(5) to identify and study critical short- and
13 long-term needs to create a sustainable marine and
14 hydrokinetic renewable energy supply chain based in
15 the United States;

16 “(6) to increase the reliability and survivability
17 of marine and hydrokinetic renewable energy tech-
18 nologies;

19 “(7) to verify the performance, reliability, main-
20 tainability, and cost of new marine and hydrokinetic
21 renewable energy device designs and system compo-
22 nents in an operating environment, and consider the
23 protection of critical infrastructure, such as ade-
24 quate separation between marine and hydrokinetic
25 devices and projects and submarine telecommuni-

1 cations cables, including consideration of established
2 industry standards;

3 “(8) to coordinate and avoid duplication of ac-
4 tivities across programs of the Department and
5 other applicable Federal agencies, including National
6 Laboratories and to coordinate public-private col-
7 laboration in all programs under this section;

8 “(9) to identify opportunities for joint research
9 and development programs and development of
10 economies of scale between—

11 “(A) marine and hydrokinetic renewable
12 energy technologies; and

13 “(B) other renewable energy and fossil en-
14 ergy programs, offshore oil and gas production
15 activities, and activities of the Department of
16 Defense;

17 “(10) to support in-water technology develop-
18 ment with international partners using existing co-
19 operative procedures (including memoranda of un-
20 derstanding)—

21 “(A) to allow cooperative funding and
22 other support of value to be exchanged and le-
23 veraged; and

24 “(B) to encourage the participation of
25 international research centers and companies

1 within the United States and the participation
2 of United States research centers and compa-
3 nies in international projects;

4 “(11) to identify, in conjunction with the Sec-
5 retary of Commerce and other relevant Federal
6 agencies, the potential environmental impacts, in-
7 cluding potential impacts on fisheries and other ma-
8 rine resources, of marine and hydrokinetic renewable
9 energy technologies, measures to prevent adverse im-
10 pacts, and technologies and other means available
11 for monitoring and determining environmental im-
12 pacts; and

13 “(12) to identify, in conjunction with the Com-
14 mandant of the United States Coast Guard and
15 other relevant Federal agencies, the potential navi-
16 gational impacts of marine and hydrokinetic renew-
17 able energy technologies and measures to prevent
18 adverse impacts on navigation.”.

19 **SEC. 4. NATIONAL MARINE RENEWABLE ENERGY RE-**
20 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**
21 **TION CENTERS.**

22 Section 634 of the Energy Independence and Security
23 Act of 2007 (42 U.S.C. 17213) is amended by striking
24 subsection (b) and inserting the following:

1 “(b) PURPOSES.—The Centers (including each Cen-
2 ter that has been established as of the date of enactment
3 of the Marine Energy Act), in coordination with the De-
4 partment and the National Laboratories, shall—

5 “(1) advance research, development, demonstra-
6 tion, and commercial application of marine and
7 hydrokinetic renewable energy technologies;

8 “(2) support in-water testing and demonstra-
9 tion of marine and hydrokinetic renewable energy
10 technologies, including facilities capable of testing—

11 “(A) marine and hydrokinetic renewable
12 energy systems of various technology readiness
13 levels and scales;

14 “(B) a variety of technologies in multiple
15 test berths at a single location; and

16 “(C) arrays of technology devices; and

17 “(3) serve as information clearinghouses for the
18 marine and hydrokinetic renewable energy industry
19 by collecting and disseminating information on best
20 practices in all areas relating to developing and
21 managing marine and hydrokinetic renewable energy
22 resources and energy systems.”.

23 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

24 Section 636 of the Energy Independence and Security
25 Act of 2007 (42 U.S.C. 17215) is amended by striking

- 1 “\$50,000,000 for each of the fiscal years 2008 through
- 2 2012” and inserting “\$60,000,000 for each of fiscal years
- 3 2018 through 2022”.

