

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

Purpose: In the nature of a substitute.

**IN THE SENATE OF THE UNITED STATES—113th Cong., 2d Sess.**

**S. 1419**

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

Referred to the Committee on \_\_\_\_\_ and  
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended  
to be proposed by \_\_\_\_\_

Viz:

1 Strike all after the enacting clause and insert the fol-

2 lowing:

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the

5 “Marine and Hydrokinetic Renewable Energy Act of

6 2014”.

7 (b) TABLE OF CONTENTS.—The table of contents of

8 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—MARINE AND HYDROKINETIC RENEWABLE ENERGY  
TECHNOLOGIES

Sec. 101. Definition of marine and hydrokinetic renewable energy.

Sec. 102. Marine and hydrokinetic renewable energy research and development.

Sec. 103. National Marine Renewable Energy Research, Development, and Demonstration Centers.

Sec. 104. Authorization of appropriations.

TITLE II—MARINE AND HYDROKINETIC RENEWABLE ENERGY  
REGULATORY EFFICIENCY

Sec. 201. Marine and hydrokinetic renewable energy projects and facilities.

1 **TITLE I—MARINE AND**  
2 **HYDROKINETIC RENEWABLE**  
3 **ENERGY TECHNOLOGIES**

4 **SEC. 101. DEFINITION OF MARINE AND HYDROKINETIC RE-**  
5 **NEWABLE ENERGY.**

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

9 **SEC. 102. MARINE AND HYDROKINETIC RENEWABLE EN-**  
10 **ERGY RESEARCH AND DEVELOPMENT.**

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

14 **“SEC. 633. MARINE AND HYDROKINETIC RENEWABLE EN-**  
15 **ERGY RESEARCH AND DEVELOPMENT.**

16 “The Secretary, in consultation with the Secretary of  
17 the Interior, the Secretary of Commerce, and the Federal  
18 Energy Regulatory Commission, shall carry out a program  
19 of research, development, demonstration, and commercial  
20 application to accelerate the introduction of marine and  
21 hydrokinetic renewable energy production into the United  
22 States energy supply, giving priority to fostering acceler-

1 ated research, development, and commercialization of  
2 technology, including programs—

3 “(1) to assist technology development to im-  
4 prove the components, processes, and systems used  
5 for power generation from marine and hydrokinetic  
6 renewable energy resources;

7 “(2) to establish critical testing infrastructure  
8 necessary—

9 “(A) to cost effectively and efficiently test  
10 and prove marine and hydrokinetic renewable  
11 energy devices; and

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

14 “(3) to support efforts to increase the efficiency  
15 of energy conversion, lower the cost, increase the  
16 use, improve the reliability, and demonstrate the ap-  
17 plicability of marine and hydrokinetic renewable en-  
18 ergy technologies by participating in demonstration  
19 projects;

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

23 “(5) to identify and study critical short- and  
24 long-term needs to create a sustainable marine and

1 hydrokinetic renewable energy supply chain based in  
2 the United States;

3 “(6) to increase the reliability and survivability  
4 of marine and hydrokinetic renewable energy tech-  
5 nologies;

6 “(7) to verify the performance, reliability, main-  
7 tainability, and cost of new marine and hydrokinetic  
8 renewable energy device designs and system compo-  
9 nents in an operating environment;

10 “(8) to coordinate and avoid duplication of ac-  
11 tivities across programs of the Department and  
12 other applicable Federal agencies, including National  
13 Laboratories and to coordinate public-private col-  
14 laboration in all programs under this section;

15 “(9) to identify opportunities for joint research  
16 and development programs and development of  
17 economies of scale between—

18 “(A) marine and hydrokinetic renewable  
19 energy technologies; and

20 “(B) other renewable energy and fossil en-  
21 ergy programs, offshore oil and gas production  
22 activities, and activities of the Department of  
23 Defense; and

24 “(10) to support in-water technology develop-  
25 ment with international partners using existing co-

1       operative procedures (including memoranda of un-  
2       derstanding)—

3               “(A) to allow cooperative funding and  
4               other support of value to be exchanged and le-  
5               veraged; and

6               “(B) to encourage the participation of  
7               international research centers and companies  
8               within the United States and the participation  
9               of United States research centers and compa-  
10              nies in international projects.”.

11 **SEC. 103. NATIONAL MARINE RENEWABLE ENERGY RE-**  
12 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**  
13 **TION CENTERS.**

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

17       “(b) PURPOSES.—A Center (in coordination with the  
18 Department and National Laboratories) shall—

19               “(1) advance research, development, demonstra-  
20               tion, and commercial application of marine and  
21               hydrokinetic renewable energy technologies;

22               “(2) support in-water testing and demonstra-  
23               tion of marine and hydrokinetic renewable energy  
24               technologies, including facilities capable of testing—

1           “(A) marine and hydrokinetic renewable  
2           energy systems of various technology readiness  
3           levels and scales;

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

6           “(C) arrays of technology devices; and

7           “(3) serve as information clearinghouses for the  
8           marine and hydrokinetic renewable energy industry  
9           by collecting and disseminating information on best  
10          practices in all areas relating to developing and  
11          managing marine and hydrokinetic renewable energy  
12          resources and energy systems.”.

13 **SEC. 104. AUTHORIZATION OF APPROPRIATIONS.**

14          Section 636 of the Energy Independence and Security  
15          Act of 2007 (42 U.S.C. 17215) is amended by striking  
16          “2008 through 2012” and inserting “2015 through  
17          2018”.

18 **TITLE            II—MARINE            AND**  
19 **HYDROKINETIC   RENEWABLE**  
20 **ENERGY REGULATORY EFFI-**  
21 **CIENCY**

22 **SEC. 201. MARINE AND HYDROKINETIC RENEWABLE EN-**  
23 **ERGY PROJECTS AND FACILITIES.**

24          Part I of the Federal Power Act (16 U.S.C. 792 et  
25          seq.) is amended by adding at the end the following:

1 **“SEC. 34. PILOT LICENSE FOR MARINE AND HYDROKINETIC**  
2 **RENEWABLE ENERGY PROJECTS.**

3 “(a) DEFINITION OF HYDROKINETIC PILOT  
4 PROJECT.—

5 “(1) IN GENERAL.—In this section, the term  
6 ‘hydrokinetic pilot project’ means a facility that gen-  
7 erates energy from—

8 “(A) waves, tides, or currents in an ocean,  
9 estuary, or tidal area; or

10 “(B) free-flowing water in a river, lake, or  
11 stream.

12 “(2) EXCLUSIONS.—The term ‘hydrokinetic  
13 pilot project’ does not include a project that uses a  
14 dam or other impoundment for electric power pur-  
15 poses.

16 “(b) PILOT LICENSES AUTHORIZED.—The Commis-  
17 sion may issue a pilot license to construct, operate, and  
18 maintain a hydrokinetic pilot project that meets the cri-  
19 teria listed in subsection (c).

20 “(c) LICENSE CRITERIA.—The Commission may  
21 issue a pilot license for a hydrokinetic pilot project if the  
22 project—

23 “(1) will have an installed capacity of not more  
24 than 10 megawatts;

25 “(2) is for a term of not more than 10 years;

1           “(3) will not cause a significant adverse envi-  
2           ronmental impact or interfere with navigation;

3           “(4) is removable and can shut down on reason-  
4           able notice in the event of a significant adverse safe-  
5           ty, navigation, or environmental impact;

6           “(5) can be removed, and the site can be re-  
7           stored, by the end of the license term, unless the  
8           project has obtained a new license or the Commis-  
9           sion has determined, based on substantial evidence,  
10          that the project should not be removed because it  
11          would be preferable for environmental or other rea-  
12          sons not to; and

13          “(6) is primarily for the purpose of—

14                 “(A) testing new hydrokinetic technologies,  
15                 both single devices and in arrays of devices;

16                 “(B) locating appropriate sites for new  
17                 hydrokinetic technologies; or

18                 “(C) determining the environmental and  
19                 other effects of a hydrokinetic technology.

20          “(d) LEAD AGENCY.—In carrying out this section,  
21          the Commission shall act as the lead agency—

22                 “(1) to coordinate all applicable Federal author-  
23                 izations; and

24                 “(2) to comply with the National Environ-  
25                 mental Policy Act of 1969 (42 U.S.C. 4321 et seq.).



1 “(e) SCHEDULE GOALS.—

2 “(1) IN GENERAL.—Not later than 30 days  
3 after the date on which the Commission receives a  
4 completed application, and following consultation  
5 with Federal, State, and local agencies with jurisdic-  
6 tion over the hydrokinetic pilot project, the Commis-  
7 sion shall develop and issue pilot license approval  
8 process scheduling goals that cover all Federal,  
9 State, and local permits required by law.

10 “(2) COMPLIANCE.—Applicable Federal, State,  
11 and local agencies shall comply with the goals estab-  
12 lished under paragraph (1) to the maximum extent  
13 practicable, consistent with applicable law.

14 “(3) 1-YEAR GOAL.—It shall be the goal of the  
15 Commission and the other applicable agencies to  
16 complete the pilot license process by not later than  
17 1 year after the date on which the Commission re-  
18 ceives the completed application.

19 “(f) SIZE LIMITATION.—For proposed projects lo-  
20 cated in an estuary, tidal area, river, lake, or stream, the  
21 Commission shall determine the size limit on a case-by-  
22 case basis, taking into account all relevant factors.

23 “(g) EXTENSIONS AUTHORIZED.—On application by  
24 a project, the Commission may make a 1-time extension  
25 of a pilot license for a term not to exceed 5 years.”.