

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

Purpose: To promote the development and use of marine and hydrokinetic renewable energy technologies.

**IN THE SENATE OF THE UNITED STATES—111th Cong., 1st Sess.**

(no.) \_\_\_\_\_

(title) \_\_\_\_\_  
\_\_\_\_\_

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

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by \_\_\_\_\_

Viz:

1 At the end of subtitle F, add the following:

2 **SEC. \_\_\_\_ . MARINE AND HYDROKINETIC RENEWABLE EN-**  
3 **ERGY RESEARCH AND DEVELOPMENT.**

4 (a) DEFINITION OF MARINE AND HYDROKINETIC  
5 RENEWABLE ENERGY.—In this section, the term “marine  
6 and hydrokinetic renewable energy” has the meaning  
7 given the term in section 632 of the Energy Independence  
8 and Security Act of 2007 (42 U.S.C. 17211).

9 (b) RESEARCH AND DEVELOPMENT PROGRAM.—Sec-  
10 tion 633(a) of the Energy Independence and Security Act  
11 of 2007 (42 U.S.C. 17212(a)) is amended—

1 (1) in paragraph (13), by striking “; and” and  
2 inserting a semicolon;

3 (2) in paragraph (14), by striking the period at  
4 the end and inserting “; and”; and

5 (3) by adding at the end the following:

6 “(15)(A) apply advanced systems engineering  
7 and system integration methods to identify critical  
8 interfaces and develop open standards for marine  
9 and hydrokinetic renewable energy;

10 “(B) transfer the resulting intellectual property  
11 to industry stakeholders as public information  
12 through published interface definitions, standards,  
13 and demonstration projects; and

14 “(C) develop incentives for industry to comply  
15 with the standards.”.

16 (c) MARINE-BASED ENERGY DEVICE VERIFICATION  
17 PROGRAM.—

18 (1) ESTABLISHMENT.—The Secretary shall es-  
19 tablish a marine-based energy device verification  
20 program to provide a bridge from the marine and  
21 hydrokinetic renewable energy capture device design  
22 and development efforts underway across the indus-  
23 try to commercial deployment of marine and  
24 hydrokinetic renewable energy devices.

1           (2) PURPOSES.—The purposes of the program  
2           are to fund, facilitate the development and installa-  
3           tion of, and evaluate marine and hydrokinetic renew-  
4           able energy projects, in partnership with Federally  
5           Funded Research and Development Centers, and in  
6           conjunction with universities and other institutions  
7           of higher education, private business entities, and  
8           other appropriate organizations, in order—

9                   (A) to increase marine and hydrokinetic re-  
10                  newable energy experience; and

11                  (B) to build and operate enough candidate  
12                  devices to obtain statistically significant oper-  
13                  ating and maintenance data.

14           (3) OBJECTIVES.—The objectives of the pro-  
15           gram include—

16                   (A) verifying the performance, reliability,  
17                  maintainability, and cost of new marine and  
18                  hydrokinetic renewable energy device designs  
19                  and system components in an operating envi-  
20                  ronment;

21                   (B) providing States, regulators, utilities,  
22                  and other stakeholders with a valid opportunity  
23                  to test and evaluate marine and hydrokinetic  
24                  renewable energy technology in new areas;

1           (C) documenting and communicating the  
2           experience from those projects for the benefit of  
3           utilities, independent power producers, other  
4           nonutility generators, device suppliers, and oth-  
5           ers in the marine and hydrokinetic renewable  
6           energy development community; and

7           (D) resolving environmental issues through  
8           robust characterization, reliable impact pre-  
9           diction, effective monitoring, development and  
10          use of adaptive management, and informing en-  
11          gineering design to improve environmental per-  
12          formance.

13          (d) ADAPTIVE MANAGEMENT AND ENVIRONMENTAL  
14          GRANT PROGRAM.—

15           (1) FINDINGS.—Congress finds that—

16           (A) the use of marine and hydrokinetic re-  
17           newable energy technologies can reduce con-  
18           tributions to global warming;

19           (B) marine and hydrokinetic renewable en-  
20           ergy technologies can be produced domestically;

21           (C) marine and hydrokinetic renewable en-  
22           ergy is a nascent industry; and

23           (D) the United States must work to pro-  
24           mote new renewable energy technologies that

1           reduce contributions to global warming gases  
2           and improve domestic energy production.

3           (2) GRANT PROGRAM.—

4                   (A) IN GENERAL.—As soon as practicable  
5           after the date of enactment of this Act, the Sec-  
6           retary shall establish a program under which  
7           the Secretary shall award grants to eligible en-  
8           tities—

9                           (i) to advance the development of ma-  
10           rine and hydrokinetic renewable energy;

11                          (ii) to help fund the costs of evalu-  
12           ating the environmental effects of marine  
13           and hydrokinetic renewables before and  
14           during the deployment of demonstration  
15           projects;

16                          (iii) to help enable the eligible enti-  
17           ties—

18                                   (I) to gather and collect the types  
19           of environmental data that are re-  
20           quired when working in a public re-  
21           source (including the waterways and  
22           oceans of the United States); and

23                                   (II) to monitor the impacts of  
24           demonstration projects and make the  
25           resulting information available for

1                   widespread dissemination to aid fu-  
2                   ture projects; and

3                   (iv) to help fund the cost of advancing  
4                   renewable marine and hydrokinetic tech-  
5                   nologies in ocean and riverine environ-  
6                   ments from demonstration projects to de-  
7                   velopment and deployment.

8                   (B) APPLICATION.—To be eligible to re-  
9                   ceive a grant under this paragraph, an entity  
10                  shall submit to the Secretary an application at  
11                  such time, in such manner, and containing such  
12                  information as the Secretary may require.

13                  (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
14                  authorized to be appropriated to carry out this section  
15                  \$250,000,000 for each of fiscal years 2010 through 2021.