

111TH CONGRESS
1ST SESSION

S. 2773

To require the Secretary of Energy to carry out a program to support the research, demonstration, and development of commercial applications for offshore wind energy, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 16, 2009

Ms. COLLINS 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 carry out a program to support the research, demonstration, and development of commercial applications for offshore wind energy, 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 “Offshore Wind Energy
5 Research, Development, Demonstration, and Commercial
6 Application Act of 2009”.

7 **SEC. 2. DEFINITIONS.**

8 In this Act:

1 (1) INSTITUTION OF HIGHER EDUCATION.—The
2 term “institution of higher education” has the
3 meaning given the term in section 101(a) of the
4 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

5 (2) NATIONAL OFFSHORE WIND CENTER.—The
6 term “national offshore wind center” means a na-
7 tional offshore wind energy research, development,
8 and demonstration center established under section
9 4(a).

10 (3) PROGRAM.—The term “program” means a
11 program—

12 (A) that includes activities to support the
13 research, demonstration, and development of
14 commercial applications for offshore wind en-
15 ergy; and

16 (B) to be carried out by the Secretary
17 under section 3(a).

18 (4) SECRETARY.—The term “Secretary” means
19 the Secretary of Energy.

20 **SEC. 3. OFFSHORE WIND ENERGY RESEARCH AND DEVEL-**
21 **OPMENT PROGRAM.**

22 (a) IN GENERAL.—As soon as practicable after the
23 date of enactment of this Act, in accordance with sub-
24 section (b), the Secretary shall carry out the program—

1 (1) to improve the energy efficiency, reliability,
2 and capacity of offshore wind turbines; and

3 (2) to reduce the cost of manufacturing, con-
4 struction, deployment, generation, and maintenance
5 of offshore wind energy systems.

6 (b) PROGRAM REQUIREMENTS.—The Secretary shall
7 carry out the program to support—

8 (1) the design, demonstration, and deployment
9 of advanced wind turbine foundations and support
10 structures, blades, turbine systems, components, and
11 supporting land- and water-based infrastructure for
12 application in—

13 (A) shallow water;

14 (B) transitional depths; and

15 (C) deep offshore water;

16 (2) the full-scale testing and establishment of
17 regional demonstrations of offshore wind compo-
18 nents and systems to validate technology and per-
19 formance issues relating to the components;

20 (3) for inclusion in a publically accessible data-
21 base, assessments of the offshore wind resources of
22 the United States, including—

23 (A) environmental impacts and benefits;

24 (B) siting and permitting issues;

25 (C) exclusion zones; and

1 (D) transmission needs;

2 (4) the design, demonstration, and deployment
3 of integrated sensors, actuators, and advanced mate-
4 rials (including composite materials);

5 (5) advanced blade manufacturing activity (in-
6 cluding automation, materials, and the assembly of
7 large-scale components) to stimulate the develop-
8 ment of the blade manufacturing capacity of the
9 United States;

10 (6) methods to assess and mitigate the effects
11 of wind energy systems on marine ecosystems and
12 marine industries; and

13 (7) other research areas, as determined to be
14 appropriate by the Secretary.

15 **SEC. 4. NATIONAL OFFSHORE WIND ENERGY RESEARCH,**
16 **DEVELOPMENT, AND DEMONSTRATION CEN-**
17 **TERS.**

18 (a) DUTY OF SECRETARY.—As soon as practicable
19 after the date of enactment of this Act, the Secretary shall
20 award, on a competitive basis and with an emphasis on
21 technical merit, grants to institutions of higher education
22 to establish 1 or more national offshore wind centers.

23 (b) SELECTION CRITERIA.—In selecting institutions
24 of higher education under subsection (a), the Secretary

1 shall give preference to institutions of higher education
2 that—

3 (1) agree to cover transitional depth tech-
4 nologies to complement the activities of a national
5 offshore wind center;

6 (2) agree to host an offshore wind energy re-
7 search and development program funded by the De-
8 partment of Energy in coordination with an engi-
9 neering program of the institution of higher edu-
10 cation;

11 (3) employ individuals who have proven exper-
12 tise relating to the development of novel materials
13 for commercial applications; and

14 (4) have access to, and use the resources of—

15 (A) the Atlantic Ocean;

16 (B) the Gulf of Mexico; or

17 (C) the Pacific Ocean.

18 (c) REQUIREMENTS.—A national offshore wind cen-
19 ter established with funds provided by the Secretary
20 through a grant under subsection (a) shall be designed—

21 (1) to focus on deepwater floating offshore wind
22 energy technologies; and

23 (2) to facilitate the conduct of initiatives to ad-
24 vance 1 or more activities described in section 3(b).

1 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

2 There is authorized to be appropriated to the Sec-
3 retary to carry out this Act \$50,000,000 for each of fiscal
4 years 2011 through 2021.

○