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.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the `Offshore Wind Energy Research, Development, Demonstration, and Commercial Application Act of 2009'.

SEC. 2. DEFINITIONS.

In this Act:

(1) INSTITUTION OF HIGHER EDUCATION- The term `institution of higher education' has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(2) NATIONAL OFFSHORE WIND CENTER- The term `national offshore wind center' means a national offshore wind energy research, development, and demonstration center established under section 4(a).

(3) PROGRAM- The term `program' means a program--

(A) that includes activities to support the research, demonstration, and development of commercial applications for offshore wind energy; and

(B) to be carried out by the Secretary under section 3(a).
(4) SECRETARY- The term "Secretary" means the Secretary of Energy.

SEC. 3. OFFSHORE WIND ENERGY RESEARCH AND DEVELOPMENT PROGRAM.

(a) In General- As soon as practicable after the date of enactment of this Act, in accordance with subsection (b), the Secretary shall carry out the program--

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

(2) to reduce the cost of manufacturing, construction, deployment, generation, and maintenance of offshore wind energy systems.

(b) Program Requirements- The Secretary shall carry out the program to support--

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

(A) shallow water;

(B) transitional depths; and

(C) deep offshore water;

(2) the full-scale testing and establishment of regional demonstrations of offshore wind components and systems to validate technology and performance issues relating to the components;

(3) for inclusion in a publically accessible database, assessments of the offshore wind resources of the United States, including--

(A) environmental impacts and benefits;

(B) siting and permitting issues;

(C) exclusion zones; and

(D) transmission needs;

(4) the design, demonstration, and deployment of integrated sensors, actuators, and advanced materials (including composite materials);

(5) advanced blade manufacturing activity (including automation, materials, and the assembly of large-scale components) to stimulate the development of the blade manufacturing capacity of the United States;

(6) methods to assess and mitigate the effects of wind energy systems on marine ecosystems and marine industries; and
(7) other research areas, as determined to be appropriate by the Secretary.

SEC. 4. NATIONAL OFFSHORE WIND ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION CENTERS.

(a) Duty of Secretary- As soon as practicable after the date of enactment of this Act, the Secretary shall award, on a competitive basis and with an emphasis on technical merit, grants to institutions of higher education to establish 1 or more national offshore wind centers.

(b) Selection Criteria- In selecting institutions of higher education under subsection (a), the Secretary shall give preference to institutions of higher education that--

(1) agree to cover transitional depth technologies to complement the activities of a national offshore wind center;

(2) agree to host an offshore wind energy research and development program funded by the Department of Energy in coordination with an engineering program of the institution of higher education;

(3) employ individuals who have proven expertise relating to the development of novel materials for commercial applications; and

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

(A) the Atlantic Ocean;

(B) the Gulf of Mexico; or

(C) the Pacific Ocean.

(c) Requirements- A national offshore wind center established with funds provided by the Secretary through a grant under subsection (a) shall be designed--

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

(2) to facilitate the conduct of initiatives to advance 1 or more activities described in section 3(b).

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to the Secretary to carry out this Act $50,000,000 for each of fiscal years 2011 through 2021.

END