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110TH CONGRESS
1ST SESSION

H. R. 2313

To establish research, development, demonstration, and commercial application programs for marine renewable energy technologies.

IN THE HOUSE OF REPRESENTATIVES

MAY 15, 2007

Ms. HOOLEY introduced the following bill; which was referred to the Committee on Science and Technology

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A BILL

To establish research, development, demonstration, and commercial application programs for marine renewable energy technologies.

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 ''Marine Renewable Energy Research and Development Act of 2007''.

SEC. 2. FINDINGS.

The Congress finds the following:

(1) The United States has a critical national interest in developing clean, domestic, renewable sources of energy in order to reduce other environ-

mental impacts of energy production, increase national security, improve public health, and bolster economic stability.

(2) Marine renewable energy is a nonpolluting energy resource.

(3) Marine renewable energy may serve as an alternative to fossil fuels and create thousands of new jobs within the United States.

(4) Europe has already successfully delivered electricity to the grid through the deployment of wave and tidal energy devices off the coast of Scotland.

(5) Recent studies from the Electric Power Research Institute, in conjunction with the Department of Energy's National Renewable Energy Laboratory, have identified an abundance of viable sites within the United States with ample wave, tidal, and thermal resources to be harnessed by marine power technologies.

(6) Sustained and expanded research, development, demonstration, and commercial application programs are needed to locate and characterize marine renewable energy resources, and to develop the technologies that will enable their widespread commercial development.

(7) Federal support is critical to reduce the financial risk associated with developing new marine renewable energy technologies, thereby encouraging the private sector investment necessary to make marine renewable energy resources commercially viable as a source of electric power and for other applications.

SEC. 3. DEFINITIONS.

For purposes of this Act—

(1) MARINE RENEWABLE ENERGY.—The term ''Marine Renewable Energy'' means energy derived from one or more of the following sources:

(A) Waves.

(B) Tidal flows.

(C) Ocean currents.

(D) Ocean thermal energy conversion.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

SEC. 4. MARINE RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

The Secretary shall support programs of research, development, demonstration, and commercial application to expand the use of marine renewable energy production from marine renewable energy technology systems, including programs to—

(1) explore and compare existing marine renewable energy extraction technologies;

(2) research, develop, and demonstrate advanced marine renewable energy systems and technologies;

(3) reduce the manufacturing and operation costs of marine renewable energy technologies;

(4) investigate efficient and reliable integration with the utility grid and intermittency issues;

(5) advance wave forecasting technologies;

(6) conduct experimental and numerical modeling for device and marine energy conversion device array optimization;

(7) increase the reliability and survivability of marine renewable energy facilities;

(8) study the compatibility with the environment of marine renewable energy technologies and systems;

(9) establish protocols for how the ocean community best interacts with marine renewable energy devices and parks;

(10) develop marine renewable energy power measurement and identification standards; and

(11) address standards development, demonstration, and technology transfer for advanced

systems engineering and system integration methods to identify critical interfaces.

SEC. 5. NATIONAL MARINE RENEWABLE ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION CENTERS.

(a) CENTERS.—The Secretary, acting through the National Renewable Energy Laboratory, shall award grants to institutions of higher education (or consortia thereof) for the establishment of 1 or more National Marine Renewable Energy Research, Development, and Demonstration Centers. In selecting locations for Centers, the Secretary shall choose at least 1 site from among sites that host an existing marine renewable energy research and development program in coordination with a public university engineering program.

(b) PURPOSES.—The Centers shall advance research, development, demonstration, and commercial application of marine renewable energy through a number of initiatives including for the purposes described in section 4(1) through (11), and shall serve as an information clearinghouse for the marine renewable energy industry, collecting and disseminating information on best practices in all areas related to developing and managing enhanced marine renewable energy systems resources.

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this Act $50,000,000 for each of the fiscal years 2008 through 2012.

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