110TH CONGRESS
1ST SESSION

H. R. 3775

IN THE SENATE OF THE UNITED STATES

OCTOBER 23, 2007

Received; read twice and referred to the Committee on Energy and Natural Resources

AN ACT

To support research and development of new industrial processes and technologies that optimize energy efficiency and environmental performance, utilize diverse sources of energy, and increase economic competitiveness.

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 ''Industrial Energy Efficiency Research and Development Act of 2007''.

SEC. 2. FINDINGS.

The Congress finds the following:

(1) According to the Energy Information Administration's 2006 Annual Energy Review, the industrial sector in 2006 accounted for more energy use (32 percent) than the residential (21 percent), commercial (18 percent), or transportation sector (29 percent).

(2) The primary energy intensive industries vital to maintaining our country's infrastructure and economic and national security include steel, chemicals, metal casting, forest products, glass, aluminum, petroleum refining, and mining, as well as other energy intensive manufacturers.

(3) The Department of Energy has demonstrated the success of public-private partnerships with these industries resulting in research, development, and deployment of new energy efficient technologies which reduce emissions and improve manufacturing competitiveness.

(4) Innovations in manufacturing processes within these industries may be translated into efficiency improvements in buildings, transportation,

and other economic sectors that depend upon these industries.

(5) While past public-private partnerships have resulted in significant energy efficiency improvements in manufacturing processes, there is a need for new technologies to achieve continual energy efficiency improvements.

(6) Innovations made in the last few decades assisted the United States in remaining competitive in the global market. Continued innovation in the areas of energy efficiency and feedstock diversification are necessary to enable the United States to maintain a competitive edge.

(7) The Department of Energy should continue collaborative efforts with industry, particularly the manufacturing sector, to broaden and accelerate the high-risk research and development of new manufacturing processes that optimize energy efficiency and utilize diverse sources of energy.

(8) These partnerships support critical research and development capabilities at universities and other research institutions while training future generations of engineers in critical areas of energy systems and efficient industrial process technologies for our domestic industries.

SEC. 3. INDUSTRIAL TECHNOLOGIES PROGRAM.

(a) IN GENERAL.—The Secretary of Energy (in this Act referred to as the ''Secretary'') shall establish a program, in cooperation with energy-intensive industries, trade and industry research collaborations representing such industries, and institutions of higher education—

(1) to conduct energy research, development, demonstration, and commercial application activities with respect to new industrial and commercial processes, technologies, and methods to—

(A) achieve substantial improvements in energy efficiency; and

(B) enhance the economic competitiveness of the United States industrial sector; and

(2) to conduct environmental research and development with respect to new industrial and commercial processes, technologies, and methods to achieve environmental performance improvements such as waste reduction, emissions reductions, and more efficient water use.

(b) PROGRAM ACTIVITIES.—Research, development, demonstration, and commercial application activities under this section may include—

(1) activities to support the development and use of technologies and processes that improve the

quality and quantity of feedstocks recovered or recycled from process and waste streams;

(2) research to meet manufacturing feedstock requirements with alternative resources;

(3) research to develop and demonstrate technologies and processes that utilize alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;

(4) research to achieve energy efficiency in steam, power, control system, and process heat technologies, and in other manufacturing processes; and

(5) a program to fund research, development, and demonstration relating to inventors' and small companies' technology proposals, based on energy savings potential, commercial viability, and technical merit.

(c) COMPETITIVE AWARDS.—All awards under this section shall be made on a competitive, merit-reviewed basis.

(d) COORDINATION AND NONDUPLICATION.—The Secretary shall, coordinate efforts under this section with other programs of the Department and other Federal agencies, to avoid duplication of effort.

(e) ANNUAL REPORT.—Not later than 1 year after the date of enactment of this Act, and once every 2 years

thereafter, the Secretary shall submit to the Congress a report on the activities conducted pursuant to this Act, including—

(1) a description of the activities used to facilitate cooperation with energy-intensive industries, universities, and other participants in the program; and

(2) a description of ongoing projects and new projects initiated, and the anticipated energy savings associated with achievement of each project's goals.

SEC. 4. UNIVERSITY-BASED INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.

To strengthen the program under section 3, the Secretary shall provide funding to university-based industrial research and assessment centers, whose purpose shall be—

(1) to identify opportunities for optimizing energy efficiency and environmental performance;

(2) to promote application of emerging concepts and technologies in small and medium-sized manufacturers;

(3) to promote the research and development for usage of alternative energy sources to supply heat, power, and new feedstocks for energy intensive industries;

(4) to coordinate with appropriate State research offices, and provide a clearinghouse for industrial process and energy efficiency technical assistance resources; and

(5) to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this Act $150,000,000 for each of the fiscal years 2009 through 2013.

Passed the House of Representatives October 22, 2007.

Attest: LORRAINE C. MILLER,

Clerk.