

# Union Calendar No. 255

110TH CONGRESS  
1ST SESSION

# H. R. 3775

[Report No. 110-401]

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.

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## IN THE HOUSE OF REPRESENTATIVES

OCTOBER 9, 2007

Mr. LAMPSON introduced the following bill; which was referred to the Committee on Science and Technology

OCTOBER 22, 2007

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italics]

[For text of introduced bill, see copy of bill as introduced on October 9, 2007]

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## A BILL

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.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 *This Act may be cited as the “Industrial Energy Effi-*  
3 *ciency Research and Development Act of 2007”.*

4 **SEC. 2. FINDINGS.**

5 *The Congress finds the following:*

6 *(1) According to the Energy Information Admin-*  
7 *istration’s 2006 Annual Energy Review, the indus-*  
8 *trial sector in 2006 accounted for more energy use (32*  
9 *percent) than the residential (21 percent), commercial*  
10 *(18 percent), or transportation sector (29 percent).*

11 *(2) The primary energy intensive industries*  
12 *vital to maintaining our country’s infrastructure and*  
13 *economic and national security include steel, chemi-*  
14 *cals, metal casting, forest products, glass, aluminum,*  
15 *petroleum refining, and mining, as well as other en-*  
16 *ergy intensive manufacturers.*

17 *(3) The Department of Energy has demonstrated*  
18 *the success of public-private partnerships with these*  
19 *industries resulting in research, development, and de-*  
20 *ployment of new energy efficient technologies which*  
21 *reduce emissions and improve manufacturing com-*  
22 *petitiveness.*

23 *(4) Innovations in manufacturing processes*  
24 *within these industries may be translated into effi-*  
25 *ciency improvements in buildings, transportation,*

1        *and other economic sectors that depend upon these in-*  
2        *dustries.*

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

8            (6) *Innovations made in the last few decades as-*  
9        *sisted the United States in remaining competitive in*  
10       *the global market. Continued innovation in the areas*  
11       *of energy efficiency and feedstock diversification are*  
12       *necessary to enable the United States to maintain a*  
13       *competitive edge.*

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

20           (8) *These partnerships support critical research*  
21       *and development capabilities at universities and other*  
22       *research institutions while training future generations*  
23       *of engineers in critical areas of energy systems and*  
24       *efficient industrial process technologies for our domes-*  
25       *tic industries.*

1 **SEC. 3. INDUSTRIAL TECHNOLOGIES PROGRAM.**

2 (a) *IN GENERAL.*—*The Secretary of Energy (in this*  
3 *Act referred to as the “Secretary”)* shall establish a pro-  
4 gram, in cooperation with energy-intensive industries,  
5 trade and industry research collaborations representing  
6 such industries, and institutions of higher education, to  
7 conduct research, development, demonstration, and commer-  
8 cial application activities with respect to new industrial  
9 and commercial processes, technologies, and methods to—

10 (1) *achieve—*

11 (A) *substantial improvements in energy ef-*  
12 *iciency; and*

13 (B) *environmental performance improve-*  
14 *ments such as waste reduction, emissions reduc-*  
15 *tions, and more efficient water use; and*

16 (2) *enhance the economic competitiveness of the*  
17 *United States industrial sector.*

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

21 (1) *activities to support the development and use*  
22 *of technologies and processes that improve the quality*  
23 *and quantity of feedstocks recovered or recycled from*  
24 *process and waste streams;*

25 (2) *research to meet manufacturing feedstock re-*  
26 *quirements with alternative resources;*

1           (3) *research to develop and demonstrate tech-*  
2           *nologies and processes that utilize alternative energy*  
3           *sources to supply heat, power, and new feedstocks for*  
4           *energy-intensive industries;*

5           (4) *research to achieve energy efficiency in*  
6           *steam, power, control system, and process heat tech-*  
7           *nologies, and in other manufacturing processes; and*

8           (5) *a program to fund research, development,*  
9           *and demonstration relating to inventors' and small*  
10          *companies' technology proposals, based on energy sav-*  
11          *ings potential, commercial viability, and technical*  
12          *merit.*

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

16          (d) *COORDINATION AND NONDUPLICATION.*—*The Sec-*  
17          *retary shall, coordinate efforts under this section with other*  
18          *programs of the Department and other Federal agencies, to*  
19          *avoid duplication of effort.*

20          (e) *ANNUAL REPORT.*—*Not later than 1 year after the*  
21          *date of enactment of this Act, and once every 2 years there-*  
22          *after, the Secretary shall submit to the Congress a report*  
23          *on the activities conducted pursuant to this Act, includ-*  
24          *ing—*

- 1           (1) a description of the activities used to facili-  
2           tate cooperation with energy-intensive industries, uni-  
3           versities, and other participants in the program; and  
4           (2) a description of ongoing projects and new  
5           projects initiated, and the anticipated energy savings  
6           associated with achievement of each project's goals.

7 **SEC. 4. UNIVERSITY-BASED INDUSTRIAL RESEARCH AND**  
8 **ASSESSMENT CENTERS.**

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

12               (1) to identify opportunities for optimizing en-  
13               ergy efficiency and environmental performance;

14               (2) to promote application of emerging concepts  
15               and technologies in small and medium-sized manufac-  
16               turers;

17               (3) to promote the research and development for  
18               usage of alternative energy sources to supply heat,  
19               power, and new feedstocks for energy intensive indus-  
20               tries;

21               (4) to coordinate with appropriate State research  
22               offices, and provide a clearinghouse for industrial  
23               process and energy efficiency technical assistance re-  
24               sources; and

1           (5) to coordinate with State-accredited technical  
2           training centers and community colleges, while ensur-  
3           ing appropriate services to all regions of the United  
4           States.

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

6           There are authorized to be appropriated to the Sec-  
7           retary to carry out this Act \$150,000,000 for each of the  
8           fiscal years 2009 through 2013.

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110<sup>TH</sup> CONGRESS  
1<sup>ST</sup> Session

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