111TH CONGRESS
1ST SESSION

S. 661

To strengthen American manufacturing through improved industrial energy efficiency, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 19, 2009

Mr. BINGAMAN (for himself, Ms. COLLINS, Ms. STABENOW, Ms. SNOWE, Mr. BAYH, Mr. BROWN, and Mr. PRYOR) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To strengthen American manufacturing through improved industrial energy efficiency, 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 ''Restoring America's Manufacturing Leadership through Energy Efficiency Act of 2009''.

SEC. 2. INDUSTRIAL ENERGY EFFICIENCY GRANT PROGRAM.

Section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371h–1) is amended—

(1) in the section heading, by inserting ''**AND INDUSTRY**'' before the period at the end;

(2) by redesignating subsections (h) and (i) as subsections (i) and (j), respectively; and

(3) by inserting after subsection (g) the following:

''(h) INDUSTRIAL ENERGY EFFICIENCY GRANT PROGRAM.—

''(1) IN GENERAL.—The Secretary shall carry out a program under whi ch the Secretary shall provide grants to eligible lenders to pay the Federal share of creating a revolving loan program under which loans are provided to commercial and industrial manufacturers to implement commercially available technologies or processes that significantly—

''(A) reduce systems energy intensity, including the use of energy intensive feedstocks; and

''(B) improve the industrial competitiveness of the United States.

''(2) ELIGIBLE LENDERS.—To be eligible to receive a grant under this subsection, a lender shall—

''(A) be a community and economic development lender that the Secretary certifies meets the requirements of this subsection;

''(B) lead a partnership that includes participation by, at a minimum—

''(i) a State government agency; and

''(ii) a private financial institution or other provider of loan capital;

''(C) submit an application to the Secretary, and receive the approval of the Secretary, for a grant to carry out a loan program described in paragraph (1); and

''(D) ensure that non-Federal funds are provided to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out a revolving loan program described in paragraph (1).

''(3) PRIORITY.—In making grants under this subsection, the Secretary shall provide a priority to partnerships that include a power producer or distributor.

''(4) AWARD.—The amount of a grant provided to an eligible lender shall not exceed $100,000,000 for any fiscal year.

''(5) ELIGIBLE PROJECTS.—A program for which a grant is provided under this subsection shall be designed to accelerate the implementation of industrial and commercial applications of technologies or processes that—

''(A) improve energy efficiency;

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

''(C) achieve such other goals as the Secretary determines to be appropriate.

''(6) EVALUATION.—The Secretary shall evaluate applications for grants under this subsection on the basis of—

''(A) the description of the program to be carried out with the grant;

''(B) the commitment to provide non-Federal funds in accordance with paragraph (2)(D);

''(C) program sustainability over a 10-year period;

''(D) the capability of the applicant;

''(E) the quantity of energy savings or energy feedstock minimization;

''(F) the advancement of the goal under this Act of 25-percent energy avoidance;

"(G) the ability to fund energy efficient projects not later than 120 days after the date of the grant award; and

"(H) such other factors as the Secretary determines appropriate.

"(7) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $500,000,000 for each of fiscal years 2010 through 2012.".

SEC. 3. COORDINATION OF RESEARCH AND DEVELOPMENT OF ENERGY EFFICIENT TECHNOLOGIES FOR INDUSTRY.

As part of the research and development activities of the Industrial Technologies Program of the Department of Energy, the Secretary of Energy shall establish, as appropriate, collaborative research and development partnerships with other programs within the Office of Energy Efficiency and Renewable Energy, including the Building Technologies Program, the Office of Electricity Delivery and Energy Reliability, and programs of the Office of Science—

(1) to leverage the research and development expertise of those programs to promote early stage energy efficiency technology development; and

(2) to apply the knowledge and expertise of the Industrial Technologies Program to help achieve the program goals of the other programs.

SEC. 4. ENERGY EFFICIENT TECHNOLOGIES ASSESSMENT.

(a) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary of Energy shall commence an assessment of commercially available, cost competitive energy efficiency technologies that are not widely implemented within the United States for the energy intensive industries of—

(1) steel;

(2) aluminum;

(3) forest and paper products;

(4) food processing;

(5) metal casting;

(6) glass;

(7) chemicals; and

(8) other industries that (as determined by the Secretary)—

(A) use large quantities of energy;

(B) emit large quantities of greenhouse gas; or

(C) use a rapidly increasing quantity of energy.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall publish a report, based on the assessment conducted under subsection (a), that contains—

(1) a detailed inventory describing the cost, energy, and greenhouse gas emission savings of each technology described in subsection (a);

(2) for each technology, the total cost, energy, and greenhouse gas emissions savings if the technology is implemented throughout the industry of the United States;

(3) for each industry, an assessment of total possible cost, energy, and greenhouse gas emissions savings possible if state-of-the art, cost-competitive, commercial energy efficiency technologies were adopted; and

(4) for each industry, a comparison to the European Union, Japan, and other appropriate countries of energy efficiency technology adoption rates, as determined by the Secretary.

SEC. 5. FUTURE OF INDUSTRY PROGRAM.

(a) IN GENERAL.—Section 452(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(c)(2)) is amended by striking the section heading

and inserting the following: ''**FUTURE OF INDUSTRY PROGRAM**''.

(b) INDUSTRY-SPECIFIC ROAD MAPS.—Section 452(c)(2) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(c)(2)) is amended—

(1) in subparagraph (E), by striking ''and'' at the end;

(2) by redesignating subparagraph (F) as subparagraph (G); and

(3) by inserting after subparagraph (E) the following:

''(F) research to establish (through the Industrial Technologies Program and in collaboration with energy-intensive industries) a road map process under which—

''(i) industry-specific studies are conducted to determine the intensity of energy use, greenhouse gas emissions, and waste and operating costs, by process and subprocess;

''(ii) near-, mid-, and long-term targets of opportunity are established for synergistic improvements in efficiency, sustainability, and resilience; and

''(iii) public/private actionable plans are created to achieve roadmap goals; and''.

(c) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—

(1) IN GENERAL.—Section 452(e) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(e)) is amended—

(A) by redesignating paragraphs (1) through (5) as subparagraphs (A) through (E), respectively, and indenting appropriately;

(B) by striking ''The Secretary'' and inserting the following:

''(1) IN GENERAL.—The Secretary'';

(C) in subparagraph (A) (as redesignated by subparagraph (A)), by inserting before the semicolon at the end the following: '', including assessments of sustainable manufacturing goals and the implementation of information technology advancements for supply chain analysis, logistics, industrial and manufacturing processes, and other purposes''; and

(D) by adding at the end the following:

''(2) CENTERS OF EXCELLENCE.—

''(A) IN GENERAL.—The Secretary shall establish a Center of Excellence at up to 10 of the highest performing industrial research and assessment centers, as determined by the Secretary.

''(B) DUTIES.—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence.

''(C) FUNDING.—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to support each Center of Excellence not less than $500,000 for fiscal year 2010 and each fiscal year thereafter, as determined by the Secretary.

''(3) EXPANSION OF CENTERS.—The Secretary shall provide funding to establish additional industrial research and assessment centers at institutions of higher education that do not have industrial research and assessment centers established under paragraph (1).

''(4) COORDINATION.—

''(A) IN GENERAL.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

''(i) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Science and Technology;

''(ii) coordinate with the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;

''(iii) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise and technologies of the National Laboratories for national industrial and manufacturing needs;

''(iv) identify opportunities for reducing greenhouse gas emissions; and

''(v) promote sustainable manufacturing practices for small- and medium-sized manufacturers.

''(5) OUTREACH.—The Secretary shall provide funding for—

''(A) outreach activities by the industrial research and assessment centers to inform small- and medium-sized manufacturers of the information, technologies, and services available; and

''(B) a full-time equivalent employee at each center of excellence whose primary mission shall be to coordinate and leverage the efforts of the center with—

''(i) Federal and State efforts;

''(ii) the efforts of utilities; and

''(iii) the efforts of other centers in the region of the center of excellence.

''(6) WORKFORCE TRAINING.—

''(A) IN GENERAL.—The Secretary shall pay the Federal share of associated internship programs under which students work with industries and manufactures to implement the recommendations of industrial research and assessment centers.

''(B) FEDERAL SHARE.—The Federal share of the cost of carrying out internship programs described in subparagraph (A) shall be 50 percent.

''(C) FUNDING.—Subject to the availability of appropriations of appropriations, of the funds made available under subsection (f), the Secretary shall use to carry out this paragraph not less than $5,000,000 for fiscal year 2010 and each fiscal year thereafter.

''(7) SMALL BUSINESS LOANS.—The Administrator of the Small Business Administration shall, to the maximum practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) for loans to implement recommendations of industrial research and assessment centers established under paragraph (1).''.

(d) FUTURE OF INDUSTRY PROGRAM.—Section 452(f) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(f)) is amended—

(1) in paragraph (1)—

(A) in subparagraph (C), by striking ''$196,000,000'' and inserting ''$216,000,000'';

(B) in subparagraph (D), by striking ''$202,000,000'' and inserting ''$232,000,000''; and

(C) in subparagraph (E), by striking ''$208,000,000'' and inserting ''$248,000,000''; and

(2) by adding at the end the following:

''(4) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—Of the amounts made available under paragraph (1), the Secretary shall use to provide

funding to industrial research and assessment centers under subsection (e) not less than—

''(A) $20,000,000 for fiscal year 2010;

''(B) $30,000,000 for fiscal year 2011; and

''(C) $40,000,000 for fiscal year 2012 and each fiscal year thereafter.''.

SEC. 6. SUSTAINABLE MANUFACTURING INITIATIVE.

(a) IN GENERAL.—Part E of title III of the Energy Policy and Conservation Act (42 U.S.C. 6341) is amended by adding at the end the following:

''SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

''(a) IN GENERAL.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a sustainable manufacturing initiative under which the Secretary shall conduct onsite technical reviews and followup implementation—

''(1) to maximize the energy efficiency of systems;

''(2) to identify and reduce harmful emissions and hazardous waste;

''(3) to identify and reduce the use of water in manufacturing processes;

''(4) to identify material substitutes that are not harmful to the environment; and

''(5) to achieve such other goals as the Secretary determines to be appropriate.

''(b) COORDINATION.—The Secretary shall carry out the initiative in coordination with—

''(1) the Manufacturing Extension Partnership Program of the National Institute of Standards and Technology; and

''(2) the Administrator of the Environmental Protection Agency.

''(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to conduct research and development of new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency of systems, reduce pollution, and conserve natural resources.

''(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.''.

(b) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec.

6201) is amended by adding at the end of the items relating to part E of title III the following:

"Sec. 376. Sustainable manufacturing initiative.".

SEC. 7. INNOVATION IN INDUSTRY GRANTS.

Section 1008 of the Energy Policy Act of 2005 (42 U.S.C. 16396) is amended by adding at the end the following:

"(g) INNOVATION IN INDUSTRY GRANTS.—

"(1) IN GENERAL.—As part of the program under this section, the Secretary shall carry out a program to pay the Federal share of competitively awarding grants to State-industry partnerships in accordance with this subsection to develop, demonstrate, and commercialize new technologies or processes for industries that significantly—

"(A) reduce energy use and energy intensive feedstocks;

"(B) reduce pollution and greenhouse gas emissions;

"(C) reduce industrial waste; and

"(D) improve domestic industrial cost competitiveness.

"(2) ADMINISTRATION.—

"(A) APPLICATIONS.—A State-industry partnership seeking a grant under this subsection shall submit to the Secretary an applica-

tion for a grant to carry out a project to demonstrate an innovative energy efficiency technology or process described in paragraph (1).

''(B) COST SHARING.—To be eligible to receive a grant under this subsection, a State-industry partnership shall agree to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out the project.

''(C) GRANT.—The Secretary shall provide to a State-industry partnership selected under this subsection a 1-time grant of not more than $500,000 to initiate the project.

''(3) ELIGIBLE PROJECTS.—A project for which a grant is received under this subsection shall be designed to demonstrate successful—

''(A) industrial applications of energy efficient technologies or processes that reduce costs to industry and prevent pollution and greenhouse gas releases; or

''(B) energy efficiency improvements in material inputs, processes, or waste streams to enhance the industrial competitiveness of the United States.

''(4) EVALUATION.—The Secretary shall evaluate applications for grants under this subsection on the basis of—

''(A) the description of the concept;

''(B) cost-efficiency;

''(C) the capability of the applicant;

''(D) the quantity of energy savings;

''(E) the commercialization or marketing plan; and

''(F) such other factors as the Secretary determines to be appropriate.''.

SEC. 8. STUDY OF ADVANCED ENERGY TECHNOLOGY MANUFACTURING CAPABILITIES IN THE UNITED STATES.

(a) IN GENERAL.—The Secretary of Energy shall enter into an arrangement with the National Academy of Sciences under which the Academy shall conduct a study of the development of advanced manufacturing capabilities for various energy technologies, including—

(1) an assessment of the manufacturing supply chains of established and emerging industries;

(2) an analysis of—

(A) the manner in which supply chains have changed over the 25-year period ending on the date of enactment of this Act;

(B) current trends in supply chains; and

(C) the energy intensity of each part of the supply chain and opportunities for improvement;

(3) for each technology or manufacturing sector, an analysis of which sections of the supply chain are critical for the United States to retain or develop to be competitive in the manufacturing of the technology;

(4) an assessment of which emerging energy technologies the United States should focus on to create or enhance manufacturing capabilities; and

(5) recommendations on the leveraging the expertise of energy efficiency and renewable energy user facilities so that best materials and manufacturing practices are designed and implemented.

(b) REPORT.—Not later than 2 years after the date on which the Secretary enters into the agreement with the Academy described in subsection (a), the Academy shall submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Secretary a report describing the results of the study required under this section, including any findings and recommendations.

SEC. 9. INDUSTRIAL TECHNOLOGIES STEERING COMMITTEE.

The Secretary of Energy shall establish an advisory steering committee to provide recommendations to the Secretary on planning and implementation of the Industrial Technologies Program of the Department of Energy.

SEC. 10. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this Act.

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