

111TH CONGRESS
1ST SESSION

S. _____

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

IN THE SENATE OF THE UNITED STATES

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 _____

A BILL

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

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Restoring America’s
5 Manufacturing Leadership through Energy Efficiency Act
6 of 2009”.

7 **SEC. 2. INDUSTRIAL ENERGY EFFICIENCY GRANT PRO-**
8 **GRAM.**

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

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

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

5 (3) by inserting after subsection (g) the fol-
6 lowing:

7 “(h) INDUSTRIAL ENERGY EFFICIENCY GRANT PRO-
8 GRAM.—

9 “(1) IN GENERAL.—The Secretary shall carry
10 out a program under which the Secretary shall pro-
11 vide grants to eligible lenders to pay the Federal
12 share of creating a revolving loan program under
13 which loans are provided to commercial and indus-
14 trial manufacturers to implement commercially avail-
15 able technologies or processes that significantly—

16 “(A) reduce systems energy intensity, in-
17 cluding the use of energy intensive feedstocks;
18 and

19 “(B) improve the industrial competitive-
20 ness of the United States.

21 “(2) ELIGIBLE LENDERS.—To be eligible to re-
22 ceive a grant under this subsection, a lender shall—

23 “(A) be a community and economic devel-
24 opment lender that the Secretary certifies meets
25 the requirements of this subsection;

1 “(B) lead a partnership that includes par-
2 ticipation by, at a minimum—

3 “(i) a State government agency; and

4 “(ii) a private financial institution or
5 other provider of loan capital;

6 “(C) submit an application to the Sec-
7 retary, and receive the approval of the Sec-
8 retary, for a grant to carry out a loan program
9 described in paragraph (1); and

10 “(D) ensure that non-Federal funds are
11 provided to match, on at least a dollar-for-dol-
12 lar basis, the amount of Federal funds that are
13 provided to carry out a revolving loan program
14 described in paragraph (1).

15 “(3) PRIORITY.—In making grants under this
16 subsection, the Secretary shall provide a priority to
17 partnerships that include a power producer or dis-
18 tributor.

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

22 “(5) ELIGIBLE PROJECTS.—A program for
23 which a grant is provided under this subsection shall
24 be designed to accelerate the implementation of in-

1 industrial and commercial applications of technologies
2 or processes that—

3 “(A) improve energy efficiency;

4 “(B) enhance the industrial competitive-
5 ness of the United States; and

6 “(C) achieve such other goals as the Sec-
7 retary determines to be appropriate.

8 “(6) EVALUATION.—The Secretary shall evalu-
9 ate applications for grants under this subsection on
10 the basis of—

11 “(A) the description of the program to be
12 carried out with the grant;

13 “(B) the commitment to provide non-Fed-
14 eral funds in accordance with paragraph
15 (2)(D);

16 “(C) program sustainability over a 10-year
17 period;

18 “(D) the capability of the applicant;

19 “(E) the quantity of energy savings or en-
20 ergy feedstock minimization;

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

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

1 “(H) such other factors as the Secretary
2 determines appropriate.

3 “(7) AUTHORIZATION OF APPROPRIATIONS.—
4 There is authorized to be appropriated to carry out
5 this subsection \$500,000,000 for each of fiscal years
6 2010 through 2012.”.

7 **SEC. 3. COORDINATION OF RESEARCH AND DEVELOPMENT**
8 **OF ENERGY EFFICIENT TECHNOLOGIES FOR**
9 **INDUSTRY.**

10 As part of the research and development activities of
11 the Industrial Technologies Program of the Department
12 of Energy, the Secretary of Energy shall establish, as ap-
13 propriate, collaborative research and development partner-
14 ships with other programs within the Office of Energy Ef-
15 ficiency and Renewable Energy, including the Building
16 Technologies Program, the Office of Electricity Delivery
17 and Energy Reliability, and programs of the Office of
18 Science—

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

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

1 **SEC. 4. ENERGY EFFICIENT TECHNOLOGIES ASSESSMENT.**

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

8 (1) steel;

9 (2) aluminum;

10 (3) forest and paper products;

11 (4) food processing;

12 (5) metal casting;

13 (6) glass;

14 (7) chemicals; and

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

17 (A) use large quantities of energy;

18 (B) emit large quantities of greenhouse
19 gas; or

20 (C) use a rapidly increasing quantity of en-
21 ergy.

22 (b) REPORT.—Not later than 1 year after the date
23 of enactment of this Act, the Secretary shall publish a re-
24 port, based on the assessment conducted under subsection
25 (a), that contains—

1 (1) a detailed inventory describing the cost, en-
2 ergy, and greenhouse gas emission savings of each
3 technology described in subsection (a);

4 (2) for each technology, the total cost, energy,
5 and greenhouse gas emissions savings if the tech-
6 nology is implemented throughout the industry of
7 the United States;

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

13 (4) for each industry, a comparison to the Eu-
14 ropean Union, Japan, and other appropriate coun-
15 tries of energy efficiency technology adoption rates,
16 as determined by the Secretary.

17 **SEC. 5. FUTURE OF INDUSTRY PROGRAM.**

18 (a) IN GENERAL.—Section 452(c)(2) of the Energy
19 Independence and Security Act of 2007 (42 U.S.C.
20 17111(c)(2)) is amended by striking the section heading
21 and inserting the following: “**FUTURE OF INDUSTRY**
22 **PROGRAM**”.

23 (b) INDUSTRY-SPECIFIC ROAD MAPS.—Section
24 452(c)(2) of the Energy Independence and Security Act
25 of 2007 (42 U.S.C. 17111(c)(2)) is amended—

1 (1) in subparagraph (E), by striking “and” at
2 the end;

3 (2) by redesignating subparagraph (F) as sub-
4 paragraph (G); and

5 (3) by inserting after subparagraph (E) the fol-
6 lowing:

7 “(F) research to establish (through the In-
8 dustrial Technologies Program and in collabora-
9 tion with energy-intensive industries) a road
10 map process under which—

11 “(i) industry-specific studies are con-
12 ducted to determine the intensity of energy
13 use, greenhouse gas emissions, and waste
14 and operating costs, by process and sub-
15 process;

16 “(ii) near-, mid-, and long-term tar-
17 gets of opportunity are established for syn-
18 ergistic improvements in efficiency, sus-
19 tainability, and resilience; and

20 “(iii) public/private actionable plans
21 are created to achieve roadmap goals;
22 and”.

23 (c) INDUSTRIAL RESEARCH AND ASSESSMENT CEN-
24 TERS.—

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

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

7 (B) by striking “The Secretary” and in-
8 serting the following:

9 “(1) IN GENERAL.—The Secretary”;

10 (C) in subparagraph (A) (as redesignated
11 by subparagraph (A)), by inserting before the
12 semicolon at the end the following: “, including
13 assessments of sustainable manufacturing goals
14 and the implementation of information tech-
15 nology advancements for supply chain analysis,
16 logistics, industrial and manufacturing proc-
17 esses, and other purposes”; and

18 (D) by adding at the end the following:

19 “(2) CENTERS OF EXCELLENCE.—

20 “(A) IN GENERAL.—The Secretary shall
21 establish a Center of Excellence at up to 10 of
22 the highest performing industrial research and
23 assessment centers, as determined by the Sec-
24 retary.

1 of Energy to provide building assessment
2 services to manufacturers;

3 “(iii) increase partnerships with the
4 National Laboratories of the Department
5 of Energy to leverage the expertise and
6 technologies of the National Laboratories
7 for national industrial and manufacturing
8 needs;

9 “(iv) identify opportunities for reduc-
10 ing greenhouse gas emissions; and

11 “(v) promote sustainable manufac-
12 turing practices for small- and medium-
13 sized manufacturers.

14 “(5) OUTREACH.—The Secretary shall provide
15 funding for—

16 “(A) outreach activities by the industrial
17 research and assessment centers to inform
18 small- and medium-sized manufacturers of the
19 information, technologies, and services avail-
20 able; and

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

25 “(i) Federal and State efforts;

1 “(ii) the efforts of utilities; and

2 “(iii) the efforts of other centers in
3 the region of the center of excellence.

4 “(6) WORKFORCE TRAINING.—

5 “(A) IN GENERAL.—The Secretary shall
6 pay the Federal share of associated internship
7 programs under which students work with in-
8 dustries and manufactures to implement the
9 recommendations of industrial research and as-
10 sessment centers.

11 “(B) FEDERAL SHARE.—The Federal
12 share of the cost of carrying out internship pro-
13 grams described in subparagraph (A) shall be
14 50 percent.

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

21 “(7) SMALL BUSINESS LOANS.—The Adminis-
22 trator of the Small Business Administration shall, to
23 the maximum practicable, expedite consideration of
24 applications from eligible small business concerns for
25 loans under the Small Business Act (15 U.S.C. 631

1 et seq.) for loans to implement recommendations of
2 industrial research and assessment centers estab-
3 lished under paragraph (1).”.

4 (d) FUTURE OF INDUSTRY PROGRAM.—Section
5 452(f) of the Energy Independence and Security Act of
6 2007 (42 U.S.C. 17111(f)) is amended—

7 (1) in paragraph (1)—

8 (A) in subparagraph (C), by striking
9 “\$196,000,000” and inserting “\$216,000,000”;

10 (B) in subparagraph (D), by striking
11 “\$202,000,000” and inserting “\$232,000,000”;

12 and

13 (C) in subparagraph (E), by striking
14 “\$208,000,000” and inserting “\$248,000,000”;

15 and

16 (2) by adding at the end the following:

17 “(4) INDUSTRIAL RESEARCH AND ASSESSMENT
18 CENTERS.—Of the amounts made available under
19 paragraph (1), the Secretary shall use to provide
20 funding to industrial research and assessment cen-
21 ters under subsection (e) not less than—

22 “(A) \$20,000,000 for fiscal year 2010;

23 “(B) \$30,000,000 for fiscal year 2011; and

24 “(C) \$40,000,000 for fiscal year 2012 and
25 each fiscal year thereafter.”.

1 **SEC. 6. SUSTAINABLE MANUFACTURING INITIATIVE.**

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

5 **“SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.**

6 “(a) IN GENERAL.—As part of the Industrial Tech-
7 nologies Program of the Department of Energy, the Sec-
8 retary shall carry out a sustainable manufacturing initia-
9 tive under which the Secretary shall conduct onsite tech-
10 nical reviews and followup implementation—

11 “(1) to maximize the energy efficiency of sys-
12 tems;

13 “(2) to identify and reduce harmful emissions
14 and hazardous waste;

15 “(3) to identify and reduce the use of water in
16 manufacturing processes;

17 “(4) to identify material substitutes that are
18 not harmful to the environment; and

19 “(5) to achieve such other goals as the Sec-
20 retary determines to be appropriate.

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

23 “(1) the Manufacturing Extension Partnership
24 Program of the National Institute of Standards and
25 Technology; and

1 “(2) the Administrator of the Environmental
2 Protection Agency.

3 “(c) RESEARCH AND DEVELOPMENT PROGRAM FOR
4 SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECH-
5 NOLOGIES AND PROCESSES.—As part of the Industrial
6 Technologies Program of the Department of Energy, the
7 Secretary shall carry out a joint industry-government
8 partnership program to conduct research and development
9 of new sustainable manufacturing and industrial tech-
10 nologies and processes that maximize the energy efficiency
11 of systems, reduce pollution, and conserve natural re-
12 sources.

13 “(d) AUTHORIZATION OF APPROPRIATIONS.—There
14 are authorized to be appropriated such sums as are nec-
15 essary to carry out this section.”.

16 (b) TABLE OF CONTENTS.—The table of contents of
17 the Energy Policy and Conservation Act (42 U.S.C. prec.
18 6201) is amended by adding at the end of the items relat-
19 ing to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

20 **SEC. 7. INNOVATION IN INDUSTRY GRANTS.**

21 Section 1008 of the Energy Policy Act of 2005 (42
22 U.S.C. 16396) is amended by adding at the end the fol-
23 lowing:

24 “(g) INNOVATION IN INDUSTRY GRANTS.—

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

8 “(A) reduce energy use and energy inten-
9 sive feedstocks;

10 “(B) reduce pollution and greenhouse gas
11 emissions;

12 “(C) reduce industrial waste; and

13 “(D) improve domestic industrial cost com-
14 petitiveness.

15 “(2) ADMINISTRATION.—

16 “(A) APPLICATIONS.—A State-industry
17 partnership seeking a grant under this sub-
18 section shall submit to the Secretary an applica-
19 tion for a grant to carry out a project to dem-
20 onstrate an innovative energy efficiency tech-
21 nology or process described in paragraph (1).

22 “(B) COST SHARING.—To be eligible to re-
23 ceive a grant under this subsection, a State-in-
24 dustry partnership shall agree to match, on at
25 least a dollar-for-dollar basis, the amount of

1 Federal funds that are provided to carry out
2 the project.

3 “(C) GRANT.—The Secretary shall provide
4 to a State-industry partnership selected under
5 this subsection a 1-time grant of not more than
6 \$500,000 to initiate the project.

7 “(3) ELIGIBLE PROJECTS.—A project for which
8 a grant is received under this subsection shall be de-
9 signed to demonstrate successful—

10 “(A) industrial applications of energy effi-
11 cient technologies or processes that reduce costs
12 to industry and prevent pollution and green-
13 house gas releases; or

14 “(B) energy efficiency improvements in
15 material inputs, processes, or waste streams to
16 enhance the industrial competitiveness of the
17 United States.

18 “(4) EVALUATION.—The Secretary shall evalu-
19 ate applications for grants under this subsection on
20 the basis of—

21 “(A) the description of the concept;

22 “(B) cost-efficiency;

23 “(C) the capability of the applicant;

24 “(D) the quantity of energy savings;

1 “(E) the commercialization or marketing
2 plan; and

3 “(F) such other factors as the Secretary
4 determines to be appropriate.”.

5 **SEC. 8. STUDY OF ADVANCED ENERGY TECHNOLOGY MAN-**
6 **UFACTURING CAPABILITIES IN THE UNITED**
7 **STATES.**

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

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

15 (2) an analysis of—

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

19 (B) current trends in supply chains; and

20 (C) the energy intensity of each part of the
21 supply chain and opportunities for improve-
22 ment;

23 (3) for each technology or manufacturing sec-
24 tor, an analysis of which sections of the supply chain
25 are critical for the United States to retain or develop

1 to be competitive in the manufacturing of the tech-
2 nology;

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

6 (5) recommendations on the leveraging the ex-
7 pertise of energy efficiency and renewable energy
8 user facilities so that best materials and manufac-
9 turing practices are designed and implemented.

10 (b) REPORT.—Not later than 2 years after the date
11 on which the Secretary enters into the agreement with the
12 Academy described in subsection (a), the Academy shall
13 submit to the Committee on Energy and Natural Re-
14 sources of the Senate, the Committee on Energy and Com-
15 merce of the House of Representatives, and the Secretary
16 a report describing the results of the study required under
17 this section, including any findings and recommendations.

18 **SEC. 9. INDUSTRIAL TECHNOLOGIES STEERING COM-**
19 **MITTEE.**

20 The Secretary of Energy shall establish an advisory
21 steering committee to provide recommendations to the
22 Secretary on planning and implementation of the Indus-
23 trial Technologies Program of the Department of Energy.

1 **SEC. 10. AUTHORIZATION OF APPROPRIATIONS.**

2 There are authorized to be appropriated to the Sec-
3 retary such sums as are necessary to carry out this Act.