

109TH CONGRESS
2^D SESSION

S. 4106

To provide for research into the development of energy-efficient technologies and to foster the introduction of energy-efficient technologies into the marketplace, with the goal of reducing United States oil imports.

IN THE SENATE OF THE UNITED STATES

DECEMBER 7, 2006

Mr. SCHUMER introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To provide for research into the development of energy-efficient technologies and to foster the introduction of energy-efficient technologies into the marketplace, with the goal of reducing United States oil imports.

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 “National Energy Effi-
5 ciency Development Act”.

6 **SEC. 2. FINDINGS.**

7 Congress finds that—

1 (1) the welfare and security of the United
2 States require that adequate provision be made for
3 activities relating to the development of energy-effi-
4 cient and renewable energy technologies; and

5 (2) those activities should be the responsibility
6 of, and should be directed by, an independent estab-
7 lishment exercising control over activities relating to
8 the development and promotion of energy-efficient
9 technologies sponsored by the United States.

10 **SEC. 3. PURPOSE.**

11 The purpose of this Act is to establish the National
12 Energy Efficiency Development Administration—

13 (1) to develop technologies to increase energy
14 efficiency;

15 (2) to reduce the demand for energy;

16 (3) to develop technologies to produce energy
17 from renewable sources; and

18 (4) to harness and facilitate the ingenuity of
19 the ongoing research and development of new energy
20 technology occurring throughout the United States.

21 **SEC. 4. DEFINITIONS.**

22 In this Act:

23 (1) ADMINISTRATION.—The term “Administra-
24 tion” means the National Energy Efficiency Devel-
25 opment Administration established by section 5(a).

1 (2) ADMINISTRATOR.—The term “Adminis-
2 trator” means the head of the Administration ap-
3 pointed under section 5(c)(1).

4 (3) ADVISORY COMMITTEE.—The term “Advi-
5 sory Committee” means the Policy Advisory Com-
6 mittee established by section 7(a)(1).

7 (4) ENERGY-EFFICIENT TECHNOLOGY ACTIV-
8 ITY.—

9 (A) IN GENERAL.—The term “energy-effi-
10 cient technology activity” means an activity
11 that improves the energy efficiency of any sec-
12 tor of the economy, including the transpor-
13 tation, building design, electrical generation, ap-
14 pliance, and power transmission sectors.

15 (B) INCLUSION.—The term “energy-effi-
16 cient technology activity” includes an activity
17 that produces energy from a sustainable bio-
18 mass, wind, small-scale hydroelectric, solar, geo-
19 thermal, or other renewable source.

20 **SEC. 5. NATIONAL ENERGY EFFICIENCY DEVELOPMENT AD-**
21 **MINISTRATION.**

22 (a) ESTABLISHMENT.—There is established, as an
23 independent agency, the National Energy Efficiency De-
24 velopment Administration.

1 (b) MISSION.—The mission of the Administration
2 shall be to reduce United States imports of oil by—

- 3 (1) 5 percent by 2008;
4 (2) 20 percent by 2011; and
5 (3) 50 percent by 2015.

6 (c) ADMINISTRATOR; DEPUTY ADMINISTRATOR.—

7 (1) ADMINISTRATOR.—

8 (A) APPOINTMENT.—

9 (i) IN GENERAL.—The Administration
10 shall be headed by an Administrator, who
11 shall be appointed by the President, by and
12 with the advice and consent of the Senate.

13 (ii) BASIS OF APPOINTMENT.—In ap-
14 pointing an individual to serve as Adminis-
15 trator, the President—

16 (I) shall consider—

17 (aa) the professional quali-
18 fications of the individual;

19 (bb) the scientific or profes-
20 sional background of the indi-
21 vidual; and

22 (cc) the length of experience
23 of the individual in positions of
24 management or energy research
25 and development; and

1 (II) shall not consider the polit-
2 ical affiliation of the individual.

3 (B) TERM OF OFFICE.—

4 (i) IN GENERAL.—Subject to clause
5 (ii), the term of office of an Administrator
6 shall be 6 years.

7 (ii) REMOVAL.—

8 (I) REMOVAL BY PRESIDENT.—

9 The President may remove an Admin-
10 istrator from the Administration
11 based on just cause, as determined by
12 the President.

13 (II) COMMUNICATION OF

14 CAUSE.—In removing an Adminis-
15 trator from the Administration, the
16 President shall communicate to Con-
17 gress each reason for removal.

18 (C) PAY.—Section 5313 of title 5, United
19 States Code, is amended by adding at the end
20 the following:

21 “Administrator, National Energy Efficiency Develop-
22 ment Administration.”.

23 (D) AUTHORITY OF ADMINISTRATOR.—

24 (i) IN GENERAL.—The Administrator
25 shall be the final authority for carrying out

1 all functions, powers, and duties of the Ad-
2 ministration relating to—

3 (I) the appointment and employ-
4 ment of all officers and employees of
5 the Administration (other than Presi-
6 dential and political appointees);

7 (II) the acquisition and mainte-
8 nance of property, services, and equip-
9 ment of the Administration;

10 (III) the activities of the Admin-
11 istration;

12 (IV) the promulgation of regula-
13 tions to carry out the functions of the
14 Administration; and

15 (V) the publishing of regulations,
16 rules, orders, circulars, bulletins, and
17 other official publications of the Ad-
18 ministration.

19 (ii) LIMITATION ON RULEMAKING AU-
20 THORITY.—The Administrator shall not
21 make any modifications to energy-effi-
22 ciency standards or related standards in
23 effect on the date of enactment of this Act
24 that would result in a projected net reduc-
25 tion of energy efficiency.

1 (iii) ORGANIZATION OF ADMINISTRA-
 2 TION.—

3 (I) IN GENERAL.—Subject to
 4 subclause (II), the Administrator may
 5 establish, alter, consolidate, or dis-
 6 continue organizational units or com-
 7 ponents within the Administration as
 8 the Administrator determines to be
 9 necessary.

10 (II) LIMITATION OF AUTHOR-
 11 ITY.—The Administrator shall not—

12 (aa) abolish any organiza-
 13 tional unit or component estab-
 14 lished by this Act; or

15 (bb) transfer any function
 16 vested by this Act in any organi-
 17 zational unit or component.

18 (E) DUTIES OF ADMINISTRATOR.—

19 (i) IN GENERAL.—The Administrator
 20 shall—

21 (I) plan, direct, and conduct en-
 22 ergy-efficient technology activities;

23 (II) provide for the widest appro-
 24 priate dissemination of information
 25 concerning the activities of the Ad-

1 ministration and the results of those
2 activities;

3 (III) improve existing energy-effi-
4 cient technologies or develop new en-
5 ergy-efficient technologies;

6 (IV) identify mechanisms to in-
7 troduce energy-efficient technologies
8 into the marketplace; and

9 (V) conduct studies of—

10 (aa) the potential benefits
11 gained, such as environmental
12 protection, increasing energy
13 independence, and reducing costs
14 to consumers; and

15 (bb) the costs of and bar-
16 riers to the development and use
17 of energy-efficient technologies.

18 (ii) OBJECTIVES.—The energy-effi-
19 cient technology activities of the United
20 States carried out from the Administrator
21 or carried out with financial assistance by
22 the Administrator shall be conducted so as
23 to contribute significantly to 1 or both of
24 the following objectives:

1 (I) Expansion of knowledge
2 about energy-efficient technologies
3 and the use of those technologies.

4 (II) The most effective use of the
5 scientific resources of the United
6 States, with close cooperation among
7 all interested agencies of the United
8 States so as to avoid duplication of ef-
9 fort, facilities, and equipment.

10 (2) DEPUTY ADMINISTRATOR.—

11 (A) APPOINTMENT.—There shall be in the
12 Administration a Deputy Administrator, who
13 shall be appointed by the President, by and
14 with the advice and consent of the Senate.

15 (B) BASIS OF APPOINTMENT.—In appoint-
16 ing a Deputy Administrator, the President—

17 (i) shall consider—

18 (I) the professional qualifications
19 of the individual;

20 (II) the scientific or professional
21 background of the individual; and

22 (III) the length of experience of
23 the individual in positions of manage-
24 ment or research and development;
25 and

1 (ii) shall not consider the political af-
2 filiation of the individual.

3 (C) TERM OF OFFICE.—

4 (i) IN GENERAL.—Subject to clause
5 (ii), the term of office of a Deputy Admin-
6 istrator shall be 6 years.

7 (ii) REMOVAL.—

8 (I) REMOVAL BY PRESIDENT.—

9 The President may remove a Deputy
10 Administrator from the Administra-
11 tion based on just cause, as deter-
12 mined by the President.

13 (II) COMMUNICATION OF

14 CAUSE.—In removing a Deputy Ad-
15 ministrator from the Administration,
16 the President shall communicate to
17 Congress each reason for removal.

18 (D) PAY.—Section 5314 of title 5, United
19 States Code, is amended by adding at the end
20 the following:

21 “Deputy Administrator, National Energy Efficiency De-
22 velopment Administration.”.

23 (E) DUTIES.—The Deputy Administrator
24 shall—

1 (i) supervise the project development
2 and engineering activities of the Adminis-
3 tration;

4 (ii) exercise such other powers and
5 perform such duties as the Administrator
6 may prescribe; and

7 (iii) act for, and exercise the powers
8 of, the Administrator during the absence
9 or disability of the Administrator.

10 (d) PERSONNEL PLAN.—Not later than 180 days
11 after the date of enactment of this Act, the Administrator
12 shall submit to Congress a personnel plan for the Adminis-
13 tration that—

14 (1) specifies the initial number and qualifica-
15 tions of employees needed for the Administration;

16 (2) describes the functions and General Service
17 classification and pay rates of the initial employees;
18 and

19 (3) specifies how the Administrator will adhere
20 to or deviate from the civil service system.

21 (e) TRANSFER OF FUNCTIONS.—

22 (1) DEFINITION OF FUNCTION.—In this sub-
23 section, the term “function” means any duty, obliga-
24 tion, power, authority, responsibility, right, privilege,
25 activity, or program.

1 (2) TRANSFER OF FUNCTIONS.—

2 (A) IN GENERAL.—Not later than 1 year
3 after the date of enactment of this Act, there
4 shall be transferred to the Administrator—

5 (i) all functions exercised by the As-
6 sistant Secretary for Efficiency and Re-
7 newable Energy as of the date of enact-
8 ment of this Act; and

9 (ii) any authority to promulgate regu-
10 lations relating to fuel efficiency exercised
11 by the Secretary of Transportation as of
12 the date of enactment of this Act.

13 (B) INCLUSIONS.—Functions transferred
14 under subparagraph (A) include all real and
15 personal property, personnel funds, and records
16 of the Office of Energy Efficiency and Renew-
17 able Energy of the Department of Energy.

18 (C) TRANSITION PLAN.—Not later than
19 180 days after the date of enactment of this
20 Act, the President shall submit to Congress a
21 transition plan to transfer functions of the Of-
22 fice of Energy Efficiency and Renewable En-
23 ergy of the Department of Energy in accord-
24 ance with this Act.

25 (3) PRESIDENTIAL TRANSFERS.—

1 (A) IN GENERAL.—Not later than 4 years
2 after the date of enactment of this Act, the
3 President (in consultation with Congress and
4 the Administrator) may transfer to the Admin-
5 istrator—

6 (i) any function of any other depart-
7 ment or agency of the United States, or of
8 any officer or organizational entity of any
9 department or agency, that relates pri-
10 marily to the duties of the Administrator
11 under this Act; and

12 (ii) any records, property, personnel,
13 and funds that are necessary to carry out
14 that function.

15 (B) REPORTS.—The President shall sub-
16 mit to Congress a report that describes the na-
17 ture and effect of any transfer made under sub-
18 paragraph (A).

19 (4) ABOLISHMENT OF OFFICE.—On completion
20 of the transfer of the functions described in para-
21 graph (2), the Office of Energy Efficiency and Re-
22 newable Energy of the Department of Energy is
23 abolished.

24 **SEC. 6. ADMINISTRATIVE POWERS.**

25 The Administrator shall—

1 (1) appoint and fix the compensation of such
2 officers and employees as are necessary to carry out
3 the functions of the Administration;

4 (2) establish the entrance grade for scientific
5 personnel without previous service in the Federal
6 Government at a level up to 2 grades higher than
7 the grade provided for such personnel in the General
8 Schedule (within the meaning of section 5104 of
9 title 5, United States Code) and fix the compensa-
10 tion of the personnel accordingly, as the Adminis-
11 trator considers necessary to recruit specially quali-
12 fied scientific, environmental, and industry-related
13 expertise;

14 (3) acquire, construct, improve, repair, operate,
15 and maintain such laboratories, research and testing
16 sites and facilities, and such other real and personal
17 property or interests in real and personal property,
18 as the Administrator determines to be necessary for
19 the performance of the functions of the Administra-
20 tion;

21 (4) enter into and perform such contracts,
22 leases, cooperative agreements, or other transactions
23 as are necessary in the performance of the duties of
24 the Administrator with any—

1 (A) agency or instrumentality of the
2 United States;

3 (B) State, Territory, or possession;

4 (C) political subdivision of any State, Ter-
5 ritory, or possession; or

6 (D) person, firm, association, corporation,
7 or educational institution;

8 (5)(A) with the consent of Federal and other
9 agencies, with or without reimbursement, use the
10 services, equipment, personnel, and facilities of those
11 agencies; and

12 (B) cooperate with other public and private
13 agencies and instrumentalities in the use of services,
14 equipment, personnel, and facilities; and

15 (6) establish within the Administration such of-
16 fices and procedures as the Administrator considers
17 appropriate to provide for the greatest possible co-
18 ordination of the activities of the Administration
19 with related scientific and other activities of other
20 public and private agencies and organizations.

21 **SEC. 7. ORGANIZATIONAL STRUCTURE.**

22 (a) POLICY ADVISORY COMMITTEE.—

23 (1) ESTABLISHMENT.—There is established in
24 the Administration a Policy Advisory Committee.

25 (2) MEMBERSHIP.—

1 (A) COMPOSITION.—The Advisory Com-
2 mittee shall be composed of 12 members, of
3 whom—

4 (i) 4 members shall be representatives
5 of the energy efficiency and environmental
6 protection community;

7 (ii) 4 members shall be representa-
8 tives of—

9 (I) industries involved in the gen-
10 eration, transmission, or distribution
11 of energy products; or

12 (II) the transportation industry;

13 and

14 (iii) 4 members shall be representa-
15 tives of the scientific and university re-
16 search community.

17 (B) APPOINTMENT.—The Speaker of the
18 House of Representatives, the minority leader
19 of the House of Representatives, the majority
20 leader of the Senate, and the minority leader of
21 the Senate shall each appoint 1 member de-
22 scribed in clauses (i), (ii), and (iii) of subpara-
23 graph (A).

24 (3) DUTIES.—The Advisory Committee shall—

1 (A) act as a steering committee for the Ad-
2 ministration;

3 (B) advise the Administrator on the for-
4 mulation of a long-term strategy for achieving
5 the mission of the Administration under section
6 5(b); and

7 (C) assist the Administrator in identifying
8 energy-efficient technologies and initiatives
9 that—

10 (i) have the potential to increase en-
11 ergy efficiency over the long term; and

12 (ii) should be further explored by the
13 Administration.

14 (4) STAFF.—The Advisory Committee may ap-
15 point not more than 24 employees to assist in car-
16 rying out the duties of the Advisory Committee, of
17 whom—

18 (A) 8 shall report to the members ap-
19 pointed under paragraph (2)(A)(i);

20 (B) 8 shall report to the members ap-
21 pointed under paragraph (2)(A)(ii); and

22 (C) 8 shall report to the members ap-
23 pointed under paragraph (2)(A)(iii).

1 (5) FACA.—The Federal Advisory Committee
2 Act (5 U.S.C. App.) shall apply to the Advisory
3 Committee.

4 (b) OFFICE OF ADMINISTRATION.—

5 (1) ESTABLISHMENT.—There is established in
6 the Administration an Office of Administration.

7 (2) ASSISTANT DEPUTY ADMINISTRATOR.—The
8 head of the Office of Administration shall be an As-
9 sistant Deputy Administrator for Administration, to
10 be appointed by the Administrator.

11 (3) ENERGY EFFICIENCY ECONOMICS DIVI-
12 SION.—

13 (A) ESTABLISHMENT.—There is estab-
14 lished in the Office of Administration an En-
15 ergy Efficiency Economics Division.

16 (B) STAFF.—The Energy Efficiency Eco-
17 nomics Division shall be composed of econo-
18 mists and individuals with expertise in energy
19 markets, consumer behavior, and the economic
20 impacts of energy policy

21 (C) DUTIES.—The Energy Efficiency Eco-
22 nomics Division shall—

23 (i) study the effects of existing and
24 proposed energy-efficient technologies on

1 the economy of the United States, with an
2 emphasis on assessing—

3 (I) the impacts of those tech-
4 nologies on consumers; and

5 (II) the contributions of those
6 technologies on the economic develop-
7 ment of the United States;

8 (ii) conduct a study of economic in-
9 centives that would assist the Administra-
10 tion in—

11 (I) developing energy-efficient
12 technologies; and

13 (II) introducing those tech-
14 nologies into the marketplace; and

15 (iii) submit to Congress a report on
16 the results of the study conducted under
17 clause (ii).

18 (4) EDUCATION DIVISION.—

19 (A) ESTABLISHMENT.—There is estab-
20 lished in the Office of Administration an Edu-
21 cation Division.

22 (B) DUTIES.—The Education Division
23 shall—

24 (i) provide to the public, information
25 concerning—

- 1 (I) how to conserve energy; and
2 (II) the importance of conserving
3 energy; and
4 (ii) provide to building owners, engi-
5 neers, contractors, and other
6 businesspeople training in energy-efficient
7 technologies.

8 (5) GENERAL COUNSEL.—There is established
9 in the Office of Administration the position of Gen-
10 eral Counsel, to be appointed by the Administrator,
11 to serve as the chief legal officer of the Administra-
12 tion.

13 (c) OFFICE OF POLICY, RESEARCH, AND DEVELOP-
14 MENT.—

15 (1) ESTABLISHMENT.—There is established in
16 the Administration an Office of Policy, Research,
17 and Development.

18 (2) DUTIES.—The Office of Policy, Research,
19 and Development shall—

20 (A) sponsor, manage, and direct basic and
21 applied research projects, including projects to
22 accelerate the development of energy-efficient
23 technologies from fundamental research to im-
24 plementation; and

1 (B) provide technical guidance to the Ad-
2 ministrator.

3 (3) ASSISTANT DEPUTY ADMINISTRATOR.—The
4 head of the Office of Policy, Research, and Develop-
5 ment shall be an Assistant Deputy Administrator for
6 Policy, Research, and Development, to be appointed
7 by the Administrator.

8 (4) ADMINISTRATION.—In carrying out this
9 subsection, the Office of Policy, Research, and De-
10 velopment shall consider the potential benefits of—

11 (A) a flat organizational structure com-
12 prised of project-based teams;

13 (B) coordination with the private sector;
14 and

15 (C) organizational models used by other
16 Federal agencies conducting advanced research.

17 (d) OFFICE OF VENTURE CAPITAL.—

18 (1) ESTABLISHMENT.—There is established in
19 the Administration an Office of Venture Capital.

20 (2) ASSISTANT DEPUTY ADMINISTRATOR.—The
21 head of the Office of Venture Capital shall be an As-
22 sistant Deputy Administrator for Venture Capital, to
23 be appointed by the Administrator.

24 (3) DUTIES.—The Office of Venture Capital
25 shall—

1 (A) accept applications from public and
 2 private entities requesting financial assistance
 3 for energy-efficient technology proposals;

4 (B) accept recommendations and input
 5 from the Deputy Administrator and the Policy
 6 Advisory Committee on applications submitted
 7 under subparagraph (A); and

8 (C) from among the applications submitted
 9 under subparagraph (A) and taking into ac-
 10 count the objectives described in section 5(f)(2),
 11 award financial assistance to applicants to carry
 12 out the proposals that are most likely to im-
 13 prove energy efficiency.

14 (e) COORDINATION.—The Administrator—

15 (1) shall ensure that the activities of the Ad-
 16 ministration are coordinated with the activities of
 17 other relevant research agencies; and

18 (2) may carry out projects jointly with other
 19 agencies.

20 **SEC. 8. INITIAL TECHNOLOGY SOLICITATIONS.**

21 (a) IN GENERAL.—The Administrator (acting
 22 through the Office of Venture Capital and the Office of
 23 Policy, Research, and Development) may, based on the cri-
 24 teria described in subsection (b), initiate the development
 25 of technologies for—

- 1 (1) fuel cells;
 - 2 (2) fuel-efficient tires;
 - 3 (3) construction of a hydrogen infrastructure;
 - 4 (4) high-temperature superconducting cable;
 - 5 (5) improved switches, resistors, capacitors,
 - 6 software and smart meters for electrical trans-
 - 7 mission systems;
 - 8 (6) combined heat and power;
 - 9 (7) micro turbines;
 - 10 (8) energy-efficient lighting;
 - 11 (9) energy efficiency training for building con-
 - 12 tractors;
 - 13 (10) biogas recovery systems;
 - 14 (11) integrated gasification combined cycle coal
 - 15 production;
 - 16 (12) retrofitting or rehabilitation of existing
 - 17 structures to incorporate energy-efficient tech-
 - 18 nologies; and
 - 19 (13) efficient micro-channel heat exchangers.
- 20 (b) CRITERIA.—In determining which technologies to
- 21 develop under subsection (a), the Administrator shall con-
- 22 sider—
- 23 (1) the current status of development of the
 - 24 technology;

1 (2) the potential for widespread use of the tech-
2 nology in commercial markets;

3 (3) the time and costs of efforts needed to bring
4 the technology to full implementation; and

5 (4) the potential of the technology to contribute
6 to the goals of the Administration.

7 (c) REPORT.—As soon as practicable after the date
8 of enactment of this Act, but not later than 1 year after
9 the date of enactment of this Act, the Administrator shall
10 submit to Congress a report that—

11 (1) assesses the potential for the technologies
12 described in subsection (a) to contribute to the goals
13 of the Administration; and

14 (2) describes the plans of the Administration to
15 develop the technologies under subsection (a).

16 **SEC. 9. REPORTS.**

17 (a) REPORTS BY ADMINISTRATOR.—

18 (1) ACTIVITIES AND ACCOMPLISHMENTS.—
19 Semiannually and at such other times as the Admin-
20 istrator considers to be appropriate, the Adminis-
21 trator shall submit to the President a report that de-
22 scribes the activities and accomplishments of the Ad-
23 ministration.

24 (2) REPORT TO CONGRESS.—At the time at
25 which the Administrator submits to the President or

1 the Director of the Office of Management and Budg-
2 et any report relating to any budget information,
3 legislative recommendation, comment on legislation
4 about amounts made available under this Act, or
5 prepared testimony for a congressional hearing, the
6 Administrator shall submit a copy of the informa-
7 tion, recommendation, comment, or testimony to
8 each appropriate committee of Congress.

9 (b) REPORTS BY PRESIDENT.—In January of each
10 year, the President shall submit to Congress a report that
11 includes—

12 (1) a description of the activities and accom-
13 plishments of all agencies of the United States in
14 the field of energy efficiency during the preceding
15 calendar year;

16 (2) an evaluation of the activities and accom-
17 plishments of the Administrator in attaining the ob-
18 jectives of this Act; and

19 (3) such recommendations for additional legisla-
20 tion as the Administrator or the President considers
21 appropriate for the attainment of the objectives de-
22 scribed in this Act.

23 **SEC. 10. AUTHORIZATION OF APPROPRIATIONS.**

24 There are authorized to be appropriated to carry out
25 this Act—

- 1 (1) \$7,500,000,000 for each of fiscal years
- 2 2007 and 2008;
- 3 (2) \$9,000,000,000 for each of fiscal years
- 4 2009 and 2010; and
- 5 (3) \$10,000,000,000 for each of fiscal years
- 6 2011 through 2015.

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