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AN ACT

Moving the United States toward greater energy independence and security, developing innovative new technologies, reducing carbon emissions, creating green jobs, protecting consumers, increasing clean renewable energy production, and modernizing our energy infrastructure, and to amend the Internal Revenue Code of 1986 to provide tax incentives for the production of renewable energy and energy conservation.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLES; TABLE OF CONTENTS.

(a) SHORT TITLES.—This Act may be cited as the "New Direction for Energy Independence, National Secu-

1 rity, and Consumer Protection Act'' and the ''Renewable
2 Energy and Energy Conservation Tax Act of 2007''.
3 (b) TABLE OF CONTENTS.—The table of contents for
4 this Act is as follows:

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DIVISION A—NEW DIRECTION FOR ENERGY INDEPENDENCE, NATIONAL SECURITY, AND CONSUMER PROTECTION ACT

TITLE I—GREEN JOBS

SEC. 1001. SHORT TITLE.

This title may be cited as the ''Green Jobs Act of 2007''.

SEC. 1002. ENERGY EFFICIENCY AND RENEWABLE ENERGY WORKER TRAINING PROGRAM.

Section 171 of the Workforce Investment Act of 1998 (29 U.S.C. 2916) is amended by adding at the end the following:

''(e) ENERGY EFFICIENCY AND RENEWABLE ENERGY WORKER TRAINING PROGRAM.—

''(1) GRANT PROGRAM.—

''(A) IN GENERAL.—Not later than 6 months after the date of enactment of the Green Jobs Act of 2007, the Secretary, in consultation with the Secretary of Energy, shall establish an energy efficiency and renewable energy worker training program under which the Secretary shall carry out the activities described

in paragraph (2) to achieve the purposes of this subsection.

"(B) ELIGIBILITY.—For purposes of providing assistance and services under the program established under this subsection—

"(i) target populations of eligible individuals to be given priority for training and other services shall include—

"(I) workers affected by national energy and environmental policy;

"(II) individuals in need of updated training related to the energy efficiency and renewable energy industries; and

"(III) veterans, or past and present members of reserve components of the Armed Forces;

"(IV) unemployed workers;

"(V) individuals, including at-risk youth, seeking employment pathways out of poverty and into economic self-sufficiency; and

"(VI) formerly incarcerated, adjudicated, non-violent offenders;

"(ii) energy efficiency and renewable energy industries eligible to participate in a program under this subsection include—

"(I) the energy-efficient building, construction, and retrofits industries;

"(II) the renewable electric power industry;

"(III) the energy efficient and advanced drive train vehicle industry;

"(IV) the biofuels industry;

"(V) the deconstruction and materials use industries;

"(VI) the energy efficiency assessment industry serving the residential, commercial, or industrial sectors; and

"(VII) manufacturers that produce sustainable products using environmentally sustainable processes and materials.

"(2) ACTIVITIES.—

"(A) NATIONAL RESEARCH PROGRAM.—Under the program established under paragraph (1), the Secretary, acting through the Bureau of Labor Statistics, where appropriate,

shall collect and analyze labor market data to track workforce trends resulting from energy-related initiatives carried out under this subsection. Activities carried out under this paragraph shall include—

"(i) tracking and documentation of academic and occupational competencies as well as future skill needs with respect to renewable energy and energy efficiency technology;

"(ii) tracking and documentation of occupational information and workforce training data with respect to renewable energy and energy efficiency technology;

"(iii) collaborating with State agencies, workforce investments boards, industry, organized labor, and community and nonprofit organizations to disseminate information on successful innovations for labor market services and worker training with respect to renewable energy and energy efficiency technology;

"(iv) serving as a clearinghouse for best practices in workforce development,

job placement, and collaborative training partnerships;

"(v) promoting the establishment of workforce training initiatives with respect to renewable energy and energy efficiency technologies; and

"(vi) linking research and development in renewable energy and energy efficiency technology with the development of standards and curricula for current and future jobs;

"(vii) assessing new employment and work practices including career ladder and upgrade training as well as high performance work systems;

"(viii) providing technical assistance and capacity building to national and state energy partnerships, including industry and labor representatives.

"(B) NATIONAL ENERGY TRAINING PARTNERSHIP GRANTS.—

"(i) IN GENERAL.—Under the program established under paragraph (1), the Secretary shall award National Energy Training Partnerships Grants on a com-

petitive basis to eligible entities to enable such entities to carry out training that leads to economic self-sufficiency and to develop an energy efficiency and renewable energy industries workforce. Grants shall be awarded under this subparagraph so as to ensure geographic diversity with at least 2 grants awarded to entities located in each of the 4 Petroleum Administration for Defense Districts with no subdistricts, and at least 1 grant awarded to an entity located in each of the subdistricts of the Petroleum Administration for Defense District with subdistricts, as such districts are established by the Secretary of Energy.

"(ii) ELIGIBILITY.—To be eligible to receive a grant under clause (i), an entity shall be a non-profit partnership that—

"(I) includes the equal participation of industry, including public or private employers, and labor organizations, including joint labor-management training programs, and may include workforce investment boards, community-based organizations, edu-

cational institutions, small businesses, cooperatives, State and local veterans agencies, and veterans service organizations; and

"(II) demonstrates—

"(aa) experience in implementing and operating worker skills training and education programs;

"(bb) the ability to identify and involve in training programs carried out under this grant, target populations of workers who would benefit from activities related to energy efficiency and renewable energy industries; and

"(cc) the ability to help workers achieve economic self-sufficiency.

"(iii) PRIORITY.—Priority shall be given to partnerships which leverage additional public and private resources to fund training programs, including cash or in-kind matches from participating employers.

"(C) STATE LABOR MARKET RESEARCH, INFORMATION, AND LABOR EXCHANGE RESEARCH PROGRAM.—

"(i) IN GENERAL.—Under the program established under paragraph (1), the Secretary shall award competitive grants to States to enable such States to administer labor market and labor exchange information programs that include the implementation of the activities described in clause (ii), in coordination with the one-stop delivery system.

"(ii) ACTIVITIES.—A State shall use amounts awarded under a grant under this subparagraph to provide funding to the State agency that administers the Wagner-Peyser Act and State unemployment compensation programs to carry out the following activities using State agency merit staff:

"(I) The identification of job openings in the renewable energy and energy efficiency sector.

"(II) The administration of skill and aptitude testing and assessment for workers.

"(III) The counseling, case management, and referral of qualified job seekers to openings and training programs, including energy efficiency and renewable energy training programs.

"(D) STATE ENERGY TRAINING PARTNERSHIP PROGRAM.—

"(i) IN GENERAL.—Under the program established under paragraph (1), the Secretary shall award competitive grants to States to enable such States to administer renewable energy and energy efficiency workforce development programs that include the implementation of the activities described in clause (ii).

"(ii) PARTNERSHIPS.—A State shall use amounts awarded under a grant under this subparagraph to award competitive grants to eligible State Energy Sector Partnerships to enable such Partnerships to coordinate with existing apprenticeship and labor management training programs

and implement training programs that lead to the economic self-sufficiency of trainees.

"(iii) ELIGIBILITY.—To be eligible to receive a grant under this subparagraph, a State Energy Sector Partnership shall—

"(I) consist of non-profit organizations that include equal participation from industry, including public or private nonprofit employers, and labor organizations, including joint labor-management training programs, and may include representatives from local governments, the workforce investment system, including worker investment agency one-stop career centers, community based organizations, community colleges, and other post-secondary institutions, small businesses, cooperatives, State and local veterans agencies, and veterans service organizations;

"(II) demonstrate experience in implementing and operating worker skills training and education programs; and

"(III) demonstrate the ability to identify and involve in training programs, target populations of workers who would benefit from activities related to energy efficiency and renewable energy industries.

"(iv) PRIORITY.—In awarding grants under this subparagraph, the Secretary shall give priority to States that demonstrate that activities under the grant—

"(I) meet national energy policies associated with energy efficiency, renewable energy, and the reduction of emissions of greenhouse gases;

"(II) meet State energy policies associated with energy efficiency, renewable energy, and the reduction of emissions of greenhouse gases; and

"(III) leverage additional public and private resources to fund training programs, including cash or in-kind matches from participating employers.

"(v) COORDINATION.—A grantee under this subparagraph shall coordinate activities carried out under the grant with

existing other appropriate training programs, including apprenticeship and labor management training programs, including such activities referenced in subparagraph (C)(ii), and implement training programs that lead to the economic self-sufficiency of trainees.

"(E) PATHWAYS OUT OF POVERTY DEMONSTRATION PROGRAM.—

"(i) IN GENERAL.—Under the program established under paragraph (1), the Secretary shall award at least 10 competitive grants to eligible entities to enable such entities to carry out training that leads to economic self-sufficiency. The Secretary shall give priority to entities that serve individuals in families with income of less than 200 percent of the poverty threshold (as determined by the Bureau of the Census) or a self-sufficiency standard for the local areas where the training is conducted that specifies the income needs of families, by family size, the number and ages of children in the family, and sub-State geographical considerations. Grants

shall be awards to ensure geographic diversity.

"(ii) ELIGIBLE ENTITIES.—To be eligible to receive a grant an entity shall be a partnership that—

"(I) includes community-based non-profit organizations, educational institutions with expertise in serving low-income adults or youth, public or private employers from the industry sectors described in paragraph (1)(B)(ii), and labor organizations representing workers in such industry sectors;

"(II) demonstrates experience in implementing and operating worker skills training and education programs;

"(III) coordinates activities, where appropriate, with the workforce investment system; and

"(IV) demonstrates the ability to recruit individuals for training and to support such individuals to successful completion in training programs car-

ried out under this grant, targeting populations of workers who are or will be engaged in activities related to energy efficiency and renewable energy industries.

"(iii) PRIORITIES.—In awarding grants under this paragraph, the Secretary shall give priority to applicants that—

"(I) target programs to benefit low-income workers, unemployed youth and adults, high school drop-outs, or other underserved sectors of the workforce within areas of high poverty;

"(II) ensure that supportive services are integrated with education and training, and delivered by organizations with direct access to and experience with targeted populations;

"(III) leverage additional public and private resources to fund training programs, including cash or in-kind matches from participating employers;

"(IV) involve employers and labor organizations in the determina-

tion of relevant skills and competencies and ensure that the certificates or credentials that result from the training are employer-recognized;

"(V) deliver courses at alternative times (such as evening and weekend programs) and locations most convenient and accessible to participants; and

"(VI) link adult remedial education with occupational skills training.

"(iv) DATA COLLECTION.—Grantees shall collect and report the following information:

"(I) The number of participants.

"(II) The demographic characteristics of participants, including race, gender, age, parenting status, participation in other Federal programs, education and literacy level at entry, significant barriers to employment (such as limited English proficiency, criminal record, addiction or mental

1 health problem requiring treatment,
2 or mental disability).
3 ''(III) The services received by
4 participants, including training, edu-
5 cation, and supportive services.
6 ''(IV) The amount of program
7 spending per participant.
8 ''(V) Program completion rates.
9 ''(VI) Factors determined as sig-
10 nificantly interfering with program
11 participation or completion.
12 ''(VII) The rate of Job placement
13 and the rate of employment retention
14 after 1 year.
15 ''(VIII) The average wage at
16 placement, including any benefits, and
17 the rate of average wage increase
18 after 1 year.
19 ''(IX) Any post-employment sup-
20 portive services provided.
21 The Secretary shall assist grantees in the
22 collection of data under this clause by
23 making available, where practicable, low-
24 cost means of tracking the labor market
25 outcomes of participants, and by providing

standardized reporting forms, where appropriate.

"(3) ACTIVITIES.—

"(A) IN GENERAL.—Activities to be carried out under a program authorized by subparagraph (B), (D), or (E) of paragraph (2) shall be coordinated with existing systems or providers, as appropriate. Such activities may include—

"(i) occupational skills training, including curriculum development, on-the-job training, and classroom training;

"(ii) safety and health training;

"(iii) the provision of basic skills, literacy, GED, English as a second language, and job readiness training;

"(iv) individual referral and tuition assistance for a community college training program, or any training program leading to an industry-recognized certificate;

"(v) internship programs in fields related to energy efficiency and renewable energy;

"(vi) customized training in conjunction with an existing registered apprentice-

ship program or labor-management partnership;

"(vii) career ladder and upgrade training;

"(viii) the implementation of transitional jobs strategies; and

"(ix) the provision of supportive services.

"(B) OUTREACH ACTIVITIES.—In addition to the activities authorized under subparagraph (A), activities authorized for programs under subparagraph (E) of paragraph (2) may include the provision of outreach, recruitment, career guidance, and case management services.

"(4) WORKER PROTECTIONS AND NONDISCRIMINATION REQUIREMENTS.—

"(A) APPLICATION OF WIA.—The provisions of sections 181 and 188 of the Workforce Investment Act of 1998 (29 U.S.C. 2931 and 2938) shall apply to all programs carried out with assistance under this subsection.

"(B) CONSULTATION WITH LABOR ORGANIZATIONS.—If a labor organization represents a substantial number of workers who are engaged in similar work or training in an area that is

the same as the area that is proposed to be funded under this Act, the labor organization shall be provided an opportunity to be consulted and to submit comments in regard to such a proposal.

''(5) PERFORMANCE MEASURES.—

''(A) IN GENERAL.—The Secretary shall negotiate and reach agreement with the eligible entities that receive grants and assistance under this section on performance measures for the indicators of performance referred to in subparagraphs (A) and (B) of section 136(b)(2) that will be used to evaluate the performance of the eligible entity in carrying out the activities described in subsection (e)(2). Each State and local performance measure shall consist of such an indicator of performance, and a performance level referred to in subparagraph (B).

''(B) PERFORMANCE LEVELS.—The Secretary shall negotiate and reach agreement with the eligible entity regarding the levels of performance expected to be achieved by the eligible entity on the indicators of performance.

''(6) REPORT.—

"(A) STATUS REPORT.—Not later than 18 months after the date of enactment of the Green Jobs Act of 2007, the Secretary shall transmit a report to Congress on the training program established by this subsection. The report shall include a description of the entities receiving funding and the activities carried out by such entities.

"(B) EVALUATION.—Not later than 3 years after the date of enactment of such Act, the Secretary shall transmit to Congress an assessment of such program and an evaluation of the activities carried out by entities receiving funding from such program.

"(7) DEFINITION.—As used in this subsection, the term 'renewable energy' has the meaning given such term in section 203(b)(2) of the Energy Policy Act of 2005 (Public Law 109–58).

"(8) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection, $125,000,000 for each fiscal years, of which—

"(A) not to exceed 20 percent of the amount appropriated in each such fiscal year shall be made available for, and shall be equally

divided between, national labor market research and information under paragraph (2)(A) and State labor market information and labor exchange research under paragraph (2)(C), and not more than 2 percent of such amount shall be for the evaluation and report required under paragraph (4);

"(B) 20 percent shall be dedicated to Pathways Out of Poverty Demonstration Programs under paragraph (2)(E); and

"(C) the remainder shall be divided equally between National Energy Partnership Training Grants under paragraph (2)(B) and State energy training partnership grants under paragraph (2)(D).".

TITLE II—INTERNATIONAL CLIMATE COOPERATION RE-ENGAGEMENT ACT OF 2007

SEC. 2001. SHORT TITLE.

This title may be cited as the "International Climate Cooperation Re-engagement Act of 2007".

SEC. 2002. DEFINITIONS.

In this title:

(1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term "appropriate congressional com-

mittees'' means the Committee on Foreign Affairs of the House of Representatives and the Committee on Foreign Relations of the Senate.

(2) CLEAN AND EFFICIENT ENERGY TECHNOLOGY.—The term ''clean and efficient energy technology'' means an energy supply or end-use technology—

(A) such as—

(i) solar technology;

(ii) wind technology;

(iii) geothermal technology;

(iv) hydroelectric technology; and

(v) carbon capture technology; and

(B) that, over its life cycle and compared to a similar technology already in commercial use—

(i) is reliable, affordable, economically viable, socially acceptable, and compatible with the needs and norms of the country involved;

(ii) results in—

(I) reduced emissions of greenhouse gases; or

(II) increased geological sequestration; and

(iii) may—

(I) substantially lower emissions of air pollutants; or

(II) generate substantially smaller or less hazardous quantities of solid or liquid waste.

(3) GEOLOGICAL SEQUESTRATION.—The term ''geological sequestration'' means the capture and long-term storage in a geological formation of a greenhouse gas from an energy producing facility, which prevents the release of greenhouse gases into the atmosphere.

(4) GREENHOUSE GAS.—The term ''greenhouse gas'' means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perfluorocarbons; or

(F) sulfur hexafluoride.

Subtitle A—United States Policy on Global Climate Change

SEC. 2101. CONGRESSIONAL FINDINGS.

Congress makes the following findings:

(1) There is a global scientific consensus, as established by the Intergovernmental Panel on Climate Change (IPCC) and confirmed by the National Academy of Sciences, that the continued build-up of anthropogenic greenhouse gases in the atmosphere has been, and is now warming the earth and threatens the stability of the global climate. By the estimate of the IPCC, unmitigated global greenhouse gas emissions could drive up global temperatures by as much as 7 to 11 degrees Fahrenheit by 2100.

(2) Climate change is already having significant impacts in certain regions of the world and on many ecosystems, with poor populations being most vulnerable.

(3) Climate change is a global problem that can only be managed by a coordinated global response that reduces global emissions of greenhouse gases to a level that stabilizes their concentration in the Earth's atmosphere.

(4) The United Nations Framework Convention on Climate Change (hereinafter in this section referred to as the "Convention") establishes a viable foundation to construct a global regime to combat global warming and manage its impacts.

(5) The United States, along with 189 other countries, is a party to the Convention, agreed to in New York on May 9, 1992, and entered into force in 1994. The Convention's stated objective is "to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

(6) The Kyoto Protocol to the Convention was adopted by the third Convention Conference of the Parties (COP–3) in December 1997, in Kyoto, Japan, and stipulated legally binding reductions in greenhouse gas emissions at an average of 5.2 percent below 1990 levels for industrialized countries, but it did not specify policies for its implementation. The Kyoto Protocol also did not stipulate binding reductions in greenhouse gas emissions for rapidly industrializing countries such as China, India, and Brazil.

(7) Before negotiations were completed on the mechanisms for implementing Kyoto Protocol commitments on greenhouse gas emissions, George W. Bush took office as President of the United States, and in March 2001, announced opposition to continued negotiations over implementation of the Pro-

tocol, stating that the Protocol was ''fatally flawed'' from the Administration's point of view.

(8) President Bush unveiled an ''alternative'' strategy to the Kyoto Protocol for halting global warming on February 14, 2002. The President's plan did not contain any international component to amend or supplant the Kyoto Protocol or any kind of blueprint for committing major developing economies such as China, India, and Brazil to reduce future greenhouse gas emissions. The President's plan set a voluntary ''greenhouse gas intensity'' target for the United States that specified an 18 percent reduction in ''emissions intensity'' by 2012. This reduction would allow actual emissions to increase by at least 12 percent over the same period.

(9) On February 16, 2005, after Russia's ratification, the Kyoto Protocol entered into force. With entry into force, the emissions targets of the Protocol became legally binding commitments for those industrialized countries that ratified the Protocol. Because the United States and Australia did not ratify the Protocol, and because developing countries are not subject to its limits, the Protocol currently restricts the emissions of countries accounting for only 32 percent of global greenhouse gas emissions.

(10) The Kyoto Protocol required that parties to the Protocol begin negotiating in 2005 toward a second round of commitments to begin after the expiration of the first emissions budget period in 2012. The eleventh Convention Conference of the Parties (COP–11) in November and December 2005 in Montreal, Canada launched the negotiations on the second round of commitments by parties to the Protocol and initiated a dialogue (a ''parallel process'') under the Convention that engaged both the United States and developing countries in discussions on future efforts.

(11) At the twelfth Convention Conference of the Parties (COP–12) in November 2006 in Nairobi, Kenya, parties continued discussions on a second round of commitments under the Kyoto Protocol as a successor to the first commitment period (2008 through 2012) and, in the parallel process, discussed enhanced cooperation under the Convention that would engage countries that did not have commitments under the Protocol.

(12) At a summit in Brussels, Belgium in March 2007, the head of governments of the European Union committed its Member States to cut greenhouse gas emissions 20 percent below 1990 lev-

1 els by 2020 and committed to move this target up
2 to 30 percent if the United States and other major
3 emitters joined the commitment.

4 (13) On April 17, 2007, the United Nations Se-
5 curity Council held its first ever ''open meeting'' on
6 the impact of climate change on international secu-
7 rity. British Foreign Secretary Margaret Beckett, in
8 her capacity as President of the Security Council,
9 declared in her opening statement that the Council
10 has a ''security imperative'' to tackle climate change
11 because it can exacerbate problems that cause con-
12 flicts and because it threatens the entire planet.
13 United Nations Secretary-General Ban Ki-moon told
14 the Council that ''issues of energy and climate
15 change have implications for peace and security''.

16 (14) Working Group III of the IPCC met from
17 April 30 through May 4, 2007, in Bangkok, Thai-
18 land to assess technologies and policies needed to
19 avert dangerous climate change and to provide back-
20 ground for negotiations on a post-2012 climate
21 change regime. The draft report by the IPCC Work-
22 ing Group III concludes that by quickly adopting
23 technological options that are available or are being
24 developed, the global concentration of greenhouse
25 gases in the atmosphere can be stabilized at 450–

550 parts per million (ppm). The IPCC scientists believe that a 450 to 550 ppm ceiling might limit the global rise in temperatures to no more than 3.6 degrees Fahrenheit and avert impacts of escalating scale, scope, and costs, potentially including the destabilization of large polar ice sheets that could contribute to long-term, catastrophic sea level rise at higher temperatures.

(15) The United Nations Secretary-General Ban Ki-moon has indicated that one of his top goals is to forge a more comprehensive agreement under the Convention to ensure there is no gap when the first commitment period under the Kyoto Protocol ends in 2012. In order to reach this goal, critical negotiations involving all of the major greenhouse gas emitters, along with the vulnerable countries, must be initiated immediately and be completed by 2009. On May 1, 2007, the Secretary-General named three Special Envoys on Climate Change to assist in ''consultations with Governments''. The Secretary-General will host a ''high-level meeting'' on climate change at the United Nations General Assembly in September 2007 to give ''political direction'' to the thirteenth Convention Conference of the Parties

(COP–13) to take place in December 2007 in Bali, Indonesia.

SEC. 2102. CONGRESSIONAL STATEMENT OF POLICY.

Congress declares the following to be the policy of the United States:

(1) To promote United States and global security through leadership in cooperation with other nations of the global effort to reduce and stabilize global greenhouse gas emissions and stabilize atmospheric concentration of such gases. As such, the United States will seek to obtain mitigation commitments from all major greenhouse gas emitting countries under the institutional framework provided by the United Nations Framework Convention on Climate Change (hereinafter in this section referred to as the ''Convention'').

(2) To facilitate progress in global negotiations toward a comprehensive agreement under the Convention, and in service of this goal, the United States will, during the course of 2007, engage in high level dialogue on climate change within the Group of Eight (G–8), with the European Union, with Japan and other industrialized countries, and with China, India, Brazil, and other major developing countries. The United States will also partici-

pate in the initiative of the United Nations Secretary-General to build consensus among governments on enhanced international cooperation on these matters.

(3) To participate more actively and constructively in the intergovernmental climate change process, including at the thirteenth Convention Conference of the Parties (COP–13) to take place in December 2007 in Bali, Indonesia. As such, at the COP–13 meeting, the United States will be represented by a high-level delegation composed of climate experts and career foreign service officers with extensive diplomatic experience, including experience in multi-lateral negotiations, headed by the Secretary of State, the Secretary's Deputy, or the Undersecretary for Global Affairs of the Department of State.

(4) To engage in serious discussion of possible future commitments under the Convention. These discussions will seek to develop a plan of action and time-table with the goal of adopting a new international agreement under the Convention that stipulates commitments from all major greenhouse gas emitters, including the United States and other countries listed in Annex 1 to the Convention,

China, India, and Brazil, at the fifteenth Convention Conference of the Parties (COP–15) to take place in 2009. This process will seek as its objective that a new instrument will come into force by the time the first commitment period under the Kyoto Protocol ends in 2012.

(5) To protect United States national and economic interests and United States competitiveness in all sectors by negotiating a new agreement under the Convention that is cost effective, comprehensive, flexible, and equitable. Such an agreement shall, at a minimum—

(A) require binding mitigation commitments from all major emitting countries based on their level of development;

(B) provide for different forms of commitments, including economy-wide emissions targets, policy-based commitments, sectoral agreements, and no-regrets targets;

(C) increase cooperation on clean and efficient energy technologies and practices;

(D) target all greenhouse gases, including sources, sinks, and reservoirs of greenhouse gases, and should expand the current scope of the Kyoto Protocol and Convention to sectors

not covered, such as the international aviation and maritime sectors;

(E) include mechanisms to harness market-based solutions, building upon the joint implementation, clean development mechanism, and international emissions trading developed under the Protocol;

(F) include incentives for sustainable forestry management that reflect the value of avoided deforestation;

(G) address the need for adaptation, especially for the most vulnerable and poorest countries on the planet;

(H) consider the impact on United States industry and contain effective mechanisms to protect United States competitiveness; and

(I) include the perspectives and address the concerns of impacted indigenous and tribal populations.

(6) To seek international consensus on long-term objectives including a target range for stabilizing greenhouse gas concentrations. The target range should reflect the consensus recommendations of Intergovernmental Panel on Climate Change (IPCC) scientists, who believe that concentrations of

greenhouse gases in the Earth's atmosphere must be stabilized at a level that would provide a reasonable chance of limiting the rise in global temperatures to a level that might avert the most dangerous impacts of climate change.

SEC. 2103. OFFICE ON GLOBAL CLIMATE CHANGE.

(a) ESTABLISHMENT OF OFFICE.—There is established within the Department of State an Office on Global Climate Change (hereinafter in this section referred to as the ''Office'').

(b) HEAD OF OFFICE.—

(1) IN GENERAL.—The head of the Office shall be the Ambassador-at-Large for Global Climate Change (hereinafter in this section referred to as the ''Ambassador-at-Large'').

(2) APPOINTMENT.—The Ambassador-at-Large shall be appointed by the President, by and with the advice and consent of the Senate.

(c) DUTIES.—

(1) IN GENERAL.—The primary responsibility of the Ambassador-at-Large shall be to advance the goals of the United States with respect to reducing the emissions of global greenhouse gases and addressing the challenges posed by global climate change.

(2) ADVISORY ROLE.—The Ambassador-at-Large—

(A) shall be a principal adviser to the President and the Secretary of State on matters relating to global climate change; and

(B) shall make recommendations to the President and the Secretary of State on policies of the United States Government with respect to international cooperation on reducing the emission of global greenhouse gases and addressing the challenges posed by global climate change.

(3) DIPLOMATIC REPRESENTATION.—Subject to the direction of the President and the Secretary of State, the Ambassador-at-Large is authorized to represent the United States in matters relating to global climate change in—

(A) contacts with foreign governments, intergovernmental organizations, and specialized agencies of the United Nations, the Organization on Security and Cooperation in Europe, and other international organizations of which the United States is a member; and

(B) multilateral conferences and meetings relating to global climate change.

(d) FUNDING.—The Secretary of State shall provide the Ambassador-at-Large with such funds as may be necessary for the hiring of staff for the Office, the conduct of investigations by the Office, and for necessary travel to carry out the provisions of this section.

(e) REPORT.—Not later than September 1 of each year, the Secretary of State, with the assistance of the Ambassador-at-Large, shall prepare and submit to the appropriate congressional committees a report on the strategy, policies, and actions of the United States for reducing the emissions of global greenhouse gases and addressing the challenges posed of global climate change.

SEC. 2104. REPORT ON PROGRESS MADE IN PROMOTING TRANSPARENCY IN EXTRACTIVE INDUSTRIES RESOURCE PAYMENTS.

(a) PURPOSE.—The purpose of this section is to—

(1) ensure greater United States energy security by combating corruption in the governments of foreign countries that receive revenues from the sale of their natural resources, and

(2) enhance the development of democracy and increase political and economic stability in such resource-rich foreign countries.

(b) FINDINGS.—Congress makes the following findings:

(1) The United States is the world's largest consumer of oil. The United States accounts for 25 percent of global daily oil demand—despite having less than 3 percent of the world's proven reserves.

(2) 6 of the top 10 suppliers of United States crude oil imports rank in the bottom third of the world's most corrupt countries, according to Transparency International.

(3) Corrupt and non-transparent foreign governments have a much higher risk of instability and violent unrest, often leading to disruptions of energy supplies. In addition, the citizens of such countries often remain impoverished despite significant resource wealth.

(4) Oil is a fungible commodity. Therefore supply disruptions due to political instability in other parts of the world affect United States domestic price and supply regardless of the source of supply.

(5) Transparency in extractive revenue transactions is important to decreasing corruption and increasing energy security.

(6) The Extractive Industries Transparency Initiative (EITI) serves to improve investment climates through the audited disclosure of revenue payments.

(c) STATEMENT OF POLICY.—It is the policy of the United States—

(1) to increase energy security by decreasing energy reliance on corrupt foreign governments;

(2) to promote global energy security through promotion of programs such as EITI that seek to instill transparency and accountability into extractive industries resource payments.

(d) SENSE OF CONGRESS.—It is the sense of Congress that the United States should further global energy security and promote democratic development in resource-rich foreign countries by—

(1) encouraging further participation in the Extractive Industries Transparency Initiative (EITI) by eligible countries and companies;

(2) promoting the efficacy of the EITI program by ensuring a robust and candid review mechanism;

(3) establishing a domestic reporting requirement for all companies that purchase natural resources from or make payments to government officials or entities connected with the extraction of such resources so that citizens can monitor expenditures by government officials to ensure accountability for illicit diversion and wasteful use of revenues received; and

(4) seeking to establish an international reporting requirement similar to the reporting requirement described in paragraph (3) in order to ensure that all international companies and foreign countries are competing and cooperating on a level playing field.

(e) REPORT.—

(1) REPORT REQUIRED.—Not later than 180 days after the date of the enactment of this Act, and annually thereafter, the Secretary of State shall submit to Congress a report on progress made in promoting transparency in extractive industries resource payments.

(2) MATTERS TO BE INCLUDED.—The report required by paragraph (1) shall include a detailed description of United States participation in the Extractive Industries Transparency Initiative (EITI), bilateral and multilateral diplomatic efforts to further participation in the EITI, and other United States initiatives to strengthen energy security, deter energy kleptocracy, and promote transparency in the extractive industries.

Subtitle B—Assistance to Promote Clean and Efficient Energy Technologies in Foreign Countries

SEC. 2201. CONGRESSIONAL FINDINGS.

Congress makes the following findings:

(1) Several provisions of the Energy Policy Act of 1992 were designed to expand Federal programs that support renewable energy and energy efficient equipment exports and to broaden the portfolio of programs to include training and technology transfer activities that help promote development in less industrialized nations, expand global markets, and reduce greenhouse gas emissions. However, few of the export-related provisions of the Energy Policy Act of 1992 were implemented due to a lack of Federal funding.

(2) In 2000, Congress called for several United States Government agencies to create an Interagency Working Group to support a Clean Energy Technology Exports Initiative to use the combined resources of various agencies to promote the export of clean energy technologies abroad. The Initiative also suffered from low levels of Federal funding and has not produced significant results.

(3) Large and emerging economies, such as India and China, play significant roles in the global energy security system as large consumers of energy and should be included as member countries in the International Energy Agency to strengthen the common interest of importers in encouraging transparent energy markets and in planning for supply disruptions.

(4) The challenge of energy security severely affects developing countries where over 1.6 billion people lack access to affordable energy services. In these nations, a lack of transparency and accountability creates a climate of mistrust for investors; bilateral and multilateral lending institutions do not provide sufficient incentives to companies investing in clean and efficient energy technologies; women and children suffer disproportionately due to the lack of energy services; inaccessibility of energy services impedes other development programs in education, health, agriculture, and the environment; and dependence on imported fuels leaves countries vulnerable to supply disruptions and economic shocks.

(5) In addition to promoting the export of clean energy technologies, large energy-consuming economies must also have appropriate incentive systems,

policy and regulatory frameworks, and investment climates in place to accept and promote the adoption of such technologies.

(6) More than $16 trillion needs to be invested in energy-supply infrastructure worldwide by 2030 to meet energy demand, and almost half of total energy investment will take place in developing countries, where production and demand are expected to increase the most.

(7) Public and private sector capital will be needed to fulfill future demand. The opportunity exists for public and private actors to coordinate efforts and leverage resources to direct this investment into technologies, practices, and services that promote energy efficiency, clean-energy production, and a reduction in global greenhouse gas emissions.

(8) In attempting to address the global climate change challenge, the United States Government recently launched the Asia Pacific Partnership on Clean Development and Climate, which is meant to accelerate the development and deployment of clean energy technologies. However, this Partnership operates in a non-binding framework that does not require any emissions reductions from the partner countries.

SEC. 2202. UNITED STATES ASSISTANCE FOR DEVELOPING COUNTRIES.

(a) ASSISTANCE AUTHORIZED.—The Administrator of the United States Agency for International Development shall support policies and programs in developing countries that promote clean and efficient energy technologies—

(1) to produce the necessary market conditions for the private sector delivery of energy and environmental management services;

(2) to create an environment that is conducive to accepting clean and efficient energy technologies that support the overall purpose of reducing greenhouse gas emissions, including—

(A) improving policy, legal, and regulatory frameworks;

(B) increasing institutional abilities to provide energy and environmental management services; and

(C) increasing public awareness and participation in the decision-making of delivering energy and environmental management services; and

(3) to promote the use of American-made clean and efficient energy technologies, products, and energy and environmental management services.

(b) REPORT.—The Administrator of the United States Agency for International Development shall submit to the appropriate committees an annual report on the implementation of this section for each of the fiscal years 2008 through 2012.

(c) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated to the Administrator of the United States Agency for International Development $200,000,000 for each of the fiscal years 2008 through 2012.

SEC. 2203. UNITED STATES EXPORTS AND OUTREACH PROGRAMS FOR INDIA, CHINA, AND OTHER COUNTRIES.

(a) ASSISTANCE AUTHORIZED.—The Secretary of Commerce shall direct the United States and Foreign Commercial Service to expand or create a corps of the Foreign Commercial Service officers to promote United States exports in clean and efficient energy technologies and build the capacity of government officials in India, China, and any other country the Secretary of Commerce determines appropriate, to become more familiar with the available technologies—

(1) by assigning or training Foreign Commercial Service attachés, who have expertise in clean and efficient energy technologies from the United

States, to embark on business development and outreach efforts to such countries; and

(2) by deploying the attachés described in paragraph (1) to educate provincial, state, and local government officials in such countries on the variety of United States-based technologies in clean and efficient energy technologies for the purposes of promoting United States exports and reducing global greenhouse gas emissions.

(b) REPORT.—The Secretary of Commerce shall submit to the appropriate committees an annual report on the implementation of this section for each of the fiscal years 2008 through 2012.

(c) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated to the Secretary of Commerce such sums as may be necessary for each of the fiscal years 2008 through 2012.

SEC. 2204. UNITED STATES TRADE MISSIONS TO ENCOURAGE PRIVATE SECTOR TRADE AND INVESTMENT.

(a) ASSISTANCE AUTHORIZED.—The Secretary of Commerce shall direct the International Trade Administration to expand or create trade missions to and from the United States to encourage private sector trade and investment in clean and efficient energy technologies—

(1) by organizing and facilitating trade missions to foreign countries and by matching United States private sector companies with opportunities in foreign markets so that clean and efficient energy technologies can help to combat increases in global greenhouse gas emissions; and

(2) by creating reverse trade missions in which the Department of Commerce facilitates the meeting of foreign private and public sector organizations with private sector companies in the United States for the purpose of showcasing clean and efficient energy technologies in use or in development that could be exported to other countries.

(b) REPORT.—The Secretary of Commerce shall submit to the appropriate committees an annual report on the implementation of this section for each of the fiscal years 2008 through 2012.

(c) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated to the Secretary of Commerce such sums as may be necessary for each of the fiscal years 2008 through 2012.

SEC. 2205. ACTIONS BY OVERSEAS PRIVATE INVESTMENT CORPORATION.

(a) FINDINGS.—Congress finds the following:

(1) Many of the emerging markets within which the Overseas Private Investment Corporation supports projects have immense energy needs and will require significant investment in the energy sector in the coming decades.

(2) The use, or lack of use, of clean and efficient energy technologies can have a dramatic effect on the rate of global greenhouse gas emissions from emerging markets in the coming decades.

(b) SENSE OF CONGRESS.—It is the sense of Congress that the Overseas Private Investment Corporation should promote greater investment in clean and efficient energy technologies by—

(1) proactively reaching out to United States companies that are interested in investing in clean and efficient energy technologies in countries that are significant contributors to global greenhouse gas emissions;

(2) giving preferential treatment to the evaluation and awarding of projects that involve the investment or utilization of clean and efficient energy technologies; and

(3) providing greater flexibility in supporting projects that involve the investment or utilization of

clean and efficient energy technologies, including financing, insurance, and other assistance.

(c) REPORT.—The Overseas Private Investment Corporation shall include in its annual report required under section 240A of the Foreign Assistance Act of 1961 (22 U.S.C. 2200a)—

(1) a description of the activities carried out to implement this section; or

(2) if the Corporation did not carry out any activities to implement this section, an explanation of the reasons therefor.

SEC. 2206. ACTIONS BY UNITED STATES TRADE AND DEVELOPMENT AGENCY.

(a) ASSISTANCE AUTHORIZED.—The Director of the Trade and Development Agency shall establish or support policies that—

(1) proactively seek opportunities to fund projects that involve the utilization of clean and efficient energy technologies, including in trade capacity building and capital investment projects;

(2) give preferential treatment to the evaluation and awarding of projects that involve the utilization of clean and efficient energy technologies, particularly to countries that have the potential for significant reduction in greenhouse gas emissions; and

(3) recruit and retain individuals with appropriate expertise in clean, renewable, and efficient energy technologies to identify and evaluate opportunities for projects that involve clean and efficient energy technologies and services.

(b) REPORT.—The President shall include in the annual report on the activities of the Trade and Development Agency required under section 661(d) of the Foreign Assistance Act of 1961 (22 U.S.C. 2421(d)) a description of the activities carried out to implement this section.

SEC. 2207. GLOBAL CLIMATE CHANGE EXCHANGE PROGRAM.

(a) PROGRAM AUTHORIZED.—The Secretary of State is authorized to establish a program to strengthen research, educational exchange, and international cooperation with the aim of reducing global greenhouse gas emissions and addressing the challenges posed by global climate change. The program authorized by this subsection shall be carried out pursuant to the authorities of the Mutual Educational and Cultural Exchange Act of 1961 (22 U.S.C. 2451 et seq.) and may be referred to as the ''Global Climate Change Exchange Program''.

(b) ELEMENTS.—The program authorized by subsection (a) shall contain the following elements:

(1) The financing of studies, research, instruction, and other educational activities dedicated to reducing carbon emissions and addressing the challenge of global climate change—

(A) by or to United States citizens and nationals in foreign universities, governments, organizations, companies, or other institutions; and

(B) by or to citizens and nationals of foreign countries in United States universities, governments, organizations, companies, or other institutions.

(2) The financing of visits and exchanges between the United States and other countries of students, trainees, teachers, instructors, professors, researchers, and other persons who study, teach, and conduct research in subjects such as the physical sciences, environmental science, public policy, economics, urban planning, and other subjects and focus on reducing greenhouse gas emissions and addressing the challenges posed by global climate change.

(c) ACCESS.—The Secretary of State shall ensure that the program authorized by subsection (a) is available to—

(1) historically Black colleges and universities that are part B institutions (as such term is defined in section 322(2) of the Higher Education Act of 1965 (20 U.S.C. 1061(2))), Hispanic-serving institutions (as such term is defined in section 502(5) of such Act (20 U.S.C. 1101a(5))), Tribal Colleges or Universities (as such term is defined in section 316 of such Act (20 U.S.C. 1059c)), and other minority institutions (as such term is defined in section 365(3) of such Act (20 U.S.C. 1067k(3))), and to the students, faculty, and researchers at such colleges, universities, and institutions; and

(2) small business concerns owned and controlled by socially and economically disadvantaged individuals, and small business concerns owned and controlled by women (as such terms are defined in section 8(d)(3) of the Small Business Act (15 U.S.C. 637(d)(3))).

(d) REPORT.—The Secretary of State shall transmit to the appropriate committees an annual report on the implementation of this section for each of the fiscal years 2008 through 2012.

(e) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to be appropriated

to the Secretary of State $3,000,000 for each of the fiscal years 2008 through 2012.

SEC. 2208. INTERAGENCY WORKING GROUP TO SUPPORT A CLEAN ENERGY TECHNOLOGY EXPORTS INITIATIVE.

(a) ASSISTANCE AUTHORIZED.—The President shall provide assistance to the Interagency Working Group to support a Clean Energy Technology Exports Initiative—

(1) to improve the ability of the United States to respond to international competition by leveraging the resources of Federal departments and agencies effectively and efficiently and by raising policy issues that may hamper the export of United States clean energy technologies abroad;

(2) to fulfill, as appropriate, the mission and objectives as noted in the report entitled, Five-Year Strategic Plan of the Clean Energy Technology Exports Initiative, submitted to Congress in October 2002; and

(3) to raise the importance and level of oversight of the Interagency Working Group to the heads of the Federal departments and agencies that are participating in the Interagency Working Group.

(b) REPORT.—The Administrator of the United States Agency for International Development, the Sec-

retary of Commerce, and the Secretary of Energy shall jointly submit to the appropriate committees an annual report on the implementation of this section for each of the fiscal years 2008 through 2012.

(c) AUTHORIZATION OF APPROPRIATIONS.—To carry out this section, there are authorized to appropriated to the President $5,000,000 for each of the fiscal years 2008 through 2012.

SEC. 2209. REPORT ON IMPACT OF GLOBAL CLIMATE CHANGE ON DEVELOPING COUNTRIES.

(a) REPORT REQUIRED.—Not later than 180 days after the date of the enactment of this Act, the Secretary of State, in consultation with the Administrator of the United States Agency for International Development, the Administrator of the Environmental Protection Agency, and the heads of other appropriate Federal departments and agencies, shall submit to the appropriate congressional committees a report on the impact of global climate change on developing countries.

(b) MATTERS TO BE INCLUDED.—The report required by subsection (a) shall include—

(1) an assessment of the current and anticipated needs of developing countries in adapting to the impact of global climate change; and

(2) a strategy to address the current and anticipated needs of developing countries in adapting to the impact of global climate change, including the provision of United States assistance to developing countries, and an identification of existing funding sources and a description of new funding sources that will be required specifically for such purposes.

Subtitle C—International Clean Energy Foundation

SEC. 2301. DEFINITIONS.

In this subtitle:

(1) BOARD.—The term ''Board'' means the Board of Directors of the Foundation established pursuant to section 2302(c).

(2) CHIEF EXECUTIVE OFFICER.—The term ''Chief Executive Officer'' means the chief executive officer of the Foundation appointed pursuant to section 2302(b).

(3) FOUNDATION.—The term ''Foundation'' means the International Clean Energy Foundation established by section 2302(a).

SEC. 2302. ESTABLISHMENT AND MANAGEMENT OF FOUNDATION.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established in the executive branch a foundation to be known as the "International Clean Energy Foundation" that shall be responsible for carrying out the provisions of this subtitle. The Foundation shall be a government corporation, as defined in section 103 of title 5, United States Code.

(2) BOARD OF DIRECTORS.—The Foundation shall be governed by a Board of Directors chaired by the Secretary of State (or the Secretary's designee) in accordance with subsection (d).

(3) INTENT OF CONGRESS.—It is the intent of Congress, in establishing the structure of the Foundation set forth in this subsection, to create an entity that serves the long-term foreign policy and energy security goals of reducing global greenhouse gas emissions.

(b) CHIEF EXECUTIVE OFFICER.—

(1) IN GENERAL.—There shall be in the Foundation a Chief Executive Officer who shall be responsible for the management of the Foundation.

(2) APPOINTMENT.—The Chief Executive Officer shall be appointed by the Board, with the advice and consent of the Senate, and shall be a recognized leader in clean and efficient energy technologies and

climate change and shall have experience in energy security, business, or foreign policy, chosen on the basis of a rigorous search.

(3) RELATIONSHIP TO BOARD.—The Chief Executive Officer shall report to, and be under the direct authority of, the Board.

(4) COMPENSATION AND RANK.—

(A) IN GENERAL.—The Chief Executive Officer shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

(B) AMENDMENT.—Section 5314 of title 5, United States Code, is amended by adding at the end the following:

''Chief Executive Officer, International Clean Energy Foundation.''.

(C) AUTHORITIES AND DUTIES.—The Chief Executive Officer shall be responsible for the management of the Foundation and shall exercise the powers and discharge the duties of the Foundation.

(D) AUTHORITY TO APPOINT OFFICERS.—In consultation and with approval of the Board,

the Chief Executive Officer shall appoint all officers of the Foundation.

(c) BOARD OF DIRECTORS.—

(1) ESTABLISHMENT.—There shall be in the Foundation a Board of Directors.

(2) DUTIES.—The Board shall perform the functions specified to be carried out by the Board in this subtitle and may prescribe, amend, and repeal bylaws, rules, regulations, and procedures governing the manner in which the business of the Foundation may be conducted and in which the powers granted to it by law may be exercised.

(3) MEMBERSHIP.—The Board shall consist of—

(A) the Secretary of State (or the Secretary's designee), the Secretary of Energy (or the Secretary's designee), and the Administrator of the United States Agency for International Development (or the Administrator's designee); and

(B) four other individuals with relevant experience in matters relating to energy security (such as individuals who represent institutions of energy policy, business organizations, foreign policy organizations, or other relevant organiza-

tions) who shall be appointed by the President, by and with the advice and consent of the Senate, of which—

(i) one individual shall be appointed from among a list of individuals submitted by the majority leader of the House of Representatives;

(ii) one individual shall be appointed from among a list of individuals submitted by the minority leader of the House of Representatives;

(iii) one individual shall be appointed from among a list of individuals submitted by the majority leader of the Senate; and

(iv) one individual shall be appointed from among a list of individuals submitted by the minority leader of the Senate.

(4) CHIEF EXECUTIVE OFFICER.—The Chief Executive Officer of the Foundation shall serve as a nonvoting, ex officio member of the Board.

(5) TERMS.—

(A) OFFICERS OF THE FEDERAL GOVERNMENT.—Each member of the Board described in paragraph (3)(A) shall serve for a term that is concurrent with the term of service of the in-

dividual's position as an officer within the other Federal department or agency.

(B) OTHER MEMBERS.—Each member of the Board described in paragraph (3)(B) shall be appointed for a term of 3 years and may be reappointed for a term of an additional 3 years.

(C) VACANCIES.—A vacancy in the Board shall be filled in the manner in which the original appointment was made.

(D) ACTING MEMBERS.—A vacancy in the Board may be filled with an appointment of an acting member by the Chairperson of the Board for up to 1 year while a nominee is named and awaits confirmation in accordance with paragraph (3)(B).

(6) CHAIRPERSON.—There shall be a Chairperson of the Board. The Secretary of State (or the Secretary's designee) shall serve as the Chairperson.

(7) QUORUM.—A majority of the members of the Board described in paragraph (3) shall constitute a quorum, which, except with respect to a meeting of the Board during the 135-day period beginning on the date of the enactment of this Act, shall include at least 1 member of the Board described in paragraph (3)(B).

(8) MEETINGS.—The Board shall meet at the call of the Chairperson, who shall call a meeting no less than once a year.

(9) COMPENSATION.—

(A) OFFICERS OF THE FEDERAL GOVERNMENT.—

(i) IN GENERAL.—A member of the Board described in paragraph (3)(A) may not receive additional pay, allowances, or benefits by reason of the member's service on the Board.

(ii) TRAVEL EXPENSES.—Each such member of the Board shall receive travel expenses, including per diem in lieu of subsistence, in accordance with applicable provisions under subchapter I of chapter 57 of title 5, United States Code.

(B) OTHER MEMBERS.—

(i) IN GENERAL.—Except as provided in clause (ii), a member of the Board described in paragraph (3)(B)—

(I) shall be paid compensation out of funds made available for the purposes of this subtitle at the daily equivalent of the highest rate payable

under section 5332 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the actual performance of duties as a member of the Board; and

(II) while away from the member's home or regular place of business on necessary travel in the actual performance of duties as a member of the Board, shall be paid per diem, travel, and transportation expenses in the same manner as is provided under subchapter I of chapter 57 of title 5, United States Code.

(ii) LIMITATION.—A member of the Board may not be paid compensation under clause (i)(II) for more than 90 days in any calendar year.

SEC. 2303. DUTIES OF FOUNDATION.

The Foundation shall—

(1) use the funds authorized by this subtitle to make grants to promote projects outside of the United States that serve as models of how to significantly reduce the emissions of global greenhouse

gases through clean and efficient energy technologies, processes, and services;

(2) seek contributions from foreign governments, especially those rich in energy resources such as member countries of the Organization of the Petroleum Exporting Countries, and private organizations to supplement funds made available under this subtitle;

(3) harness global expertise through collaborative partnerships with foreign governments and domestic and foreign private actors, including nongovernmental organizations and private sector companies, by leveraging public and private capital, technology, expertise, and services towards innovative models that can be instituted to reduce global greenhouse gas emissions;

(4) create a repository of information on best practices and lessons learned on the utilization and implementation of clean and efficient energy technologies and processes to be used for future initiatives to tackle the climate change crisis;

(5) be committed to minimizing administrative costs and to maximizing the availability of funds for grants under this subtitle; and

(6) promote the use of American-made clean and efficient energy technologies, processes, and services.

SEC. 2304. ANNUAL REPORT.

(a) REPORT REQUIRED.—Not later than March 31, 2008, and each March 31 thereafter, the Foundation shall submit to the appropriate congressional committees a report on the implementation of this subtitle during the prior fiscal year.

(b) CONTENTS.—The report required by subsection (a) shall include—

(1) the total financial resources available to the Foundation during the year, including appropriated funds, the value and source of any gifts or donations accepted pursuant to section 2305(a)(6), and any other resources;

(2) a description of the Board's policy priorities for the year and the basis upon which competitive grant proposals were solicited and awarded to nongovernmental institutions and other organizations;

(3) a list of grants made to nongovernmental institutions and other organizations that includes the identity of the institutional recipient, the dollar amount, and the results of the program; and

(4) the total administrative and operating expenses of the Foundation for the year, as well as specific information on—

(A) the number of Foundation employees and the cost of compensation for Board members, Foundation employees, and personal service contractors;

(B) costs associated with securing the use of real property for carrying out the functions of the Foundation;

(C) total travel expenses incurred by Board members and Foundation employees in connection with Foundation activities; and

(D) total representational expenses.

SEC. 2305. POWERS OF THE FOUNDATION; RELATED PROVISIONS.

(a) POWERS.—The Foundation—

(1) shall have perpetual succession unless dissolved by a law enacted after the date of the enactment of this Act;

(2) may adopt, alter, and use a seal, which shall be judicially noticed;

(3) may make and perform such contracts, grants, and other agreements with any person or government however designated and wherever situ-

ated, as may be necessary for carrying out the functions of the Foundation;

(4) may determine and prescribe the manner in which its obligations shall be incurred and its expenses allowed and paid, including expenses for representation;

(5) may lease, purchase, or otherwise acquire, improve, and use such real property wherever situated, as may be necessary for carrying out the functions of the Foundation;

(6) may accept money, funds, services, or property (real, personal, or mixed), tangible or intangible, made available by gift, bequest grant, or otherwise for the purpose of carrying out the provisions of this title from domestic or foreign private individuals, charities, nongovernmental organizations, corporations, or governments;

(7) may use the United States mails in the same manner and on the same conditions as the executive departments;

(8) may contract with individuals for personal services, who shall not be considered Federal employees for any provision of law administered by the Office of Personnel Management;

(9) may hire or obtain passenger motor vehicles; and

(10) shall have such other powers as may be necessary and incident to carrying out this subtitle.

(b) PRINCIPAL OFFICE.—The Foundation shall maintain its principal office in the metropolitan area of Washington, District of Columbia.

(c) APPLICABILITY OF GOVERNMENT CORPORATION CONTROL ACT.—

(1) IN GENERAL.—The Foundation shall be subject to chapter 91 of subtitle VI of title 31, United States Code, except that the Foundation shall not be authorized to issue obligations or offer obligations to the public.

(2) CONFORMING AMENDMENT.—Section 9101(3) of title 31, United States Code, is amended by adding at the end the following:

"(R) the International Clean Energy Foundation.".

(d) INSPECTOR GENERAL.—

(1) IN GENERAL.—The Inspector General of the Department of State shall serve as Inspector General of the Foundation, and, in acting in such capacity, may conduct reviews, investigations, and

inspections of all aspects of the operations and activities of the Foundation.

(2) AUTHORITY OF THE BOARD.—In carrying out the responsibilities under this subsection, the Inspector General shall report to and be under the general supervision of the Board.

(3) REIMBURSEMENT AND AUTHORIZATION OF SERVICES.—

(A) REIMBURSEMENT.—The Foundation shall reimburse the Department of State for all expenses incurred by the Inspector General in connection with the Inspector General's responsibilities under this subsection.

(B) AUTHORIZATION FOR SERVICES.—Of the amount authorized to be appropriated under section 2307(a) for a fiscal year, up to $500,000 is authorized to be made available to the Inspector General of the Department of State to conduct reviews, investigations, and inspections of operations and activities of the Foundation.

SEC. 2306. GENERAL PERSONNEL AUTHORITIES.

(a) DETAIL OF PERSONNEL.—Upon request of the Chief Executive Officer, the head of an agency may detail any employee of such agency to the Foundation on a reim-

bursable basis. Any employee so detailed remains, for the purpose of preserving such employee's allowances, privileges, rights, seniority, and other benefits, an employee of the agency from which detailed.

(b) REEMPLOYMENT RIGHTS.—

(1) IN GENERAL.—An employee of an agency who is serving under a career or career conditional appointment (or the equivalent), and who, with the consent of the head of such agency, transfers to the Foundation, is entitled to be reemployed in such employee's former position or a position of like seniority, status, and pay in such agency, if such employee—

(A) is separated from the Foundation for any reason, other than misconduct, neglect of duty, or malfeasance; and

(B) applies for reemployment not later than 90 days after the date of separation from the Foundation.

(2) SPECIFIC RIGHTS.—An employee who satisfies paragraph (1) is entitled to be reemployed (in accordance with such paragraph) within 30 days after applying for reemployment and, on reemployment, is entitled to at least the rate of basic pay to

which such employee would have been entitled had such employee never transferred.

(c) HIRING AUTHORITY.—Of persons employed by the Foundation, no more than 30 persons may be appointed, compensated, or removed without regard to the civil service laws and regulations.

(d) BASIC PAY.—The Chief Executive Officer may fix the rate of basic pay of employees of the Foundation without regard to the provisions of chapter 51 of title 5, United States Code (relating to the classification of positions), subchapter III of chapter 53 of such title (relating to General Schedule pay rates), except that no employee of the Foundation may receive a rate of basic pay that exceeds the rate for level IV of the Executive Schedule under section 5315 of such title.

(e) DEFINITIONS.—In this section—

(1) the term ''agency'' means an executive agency, as defined by section 105 of title 5, United States Code; and

(2) the term ''detail'' means the assignment or loan of an employee, without a change of position, from the agency by which such employee is employed to the Foundation.

SEC. 2307. AUTHORIZATION OF APPROPRIATIONS.

(a) AUTHORIZATION OF APPROPRIATIONS.—To carry out this subtitle, there are authorized to be appropriated $20,000,000 for each of the fiscal years 2008 through 2012.

(b) ALLOCATION OF FUNDS.—

(1) IN GENERAL.—The Foundation may allocate or transfer to any agency of the United States Government any of the funds available for carrying out this subtitle. Such funds shall be available for obligation and expenditure for the purposes for which the funds were authorized, in accordance with authority granted in this subtitle or under authority governing the activities of the United States Government agency to which such funds are allocated or transferred.

(2) NOTIFICATION.—The Foundation shall notify the appropriate congressional committees not less than 15 days prior to an allocation or transfer of funds pursuant to paragraph (1).

TITLE III—SMALL ENERGY EFFICIENT BUSINESSES

SEC. 3001. SHORT TITLE.

This title may be cited as the ''Small Energy Efficient Businesses Act''.

SEC. 3002. FINDINGS.

Congress finds the following:

(1) Energy efficiency is in our national interest for our long term economic well being, for the health and safety of our citizens and the world, and for our independence and security.

(2) Small businesses are more efficient, nimble, and innovative than large businesses and therefore more likely to integrate and benefit from energy efficient technology advances and upgrades, but they are less likely to have the capital to institute these advances quickly.

(3) The majority of businesses (two-thirds) say they have been unable to invest in comprehensive energy efficiency programs for their businesses thus far, though they know of them and believe they are effective.

(4) A pilot program has demonstrated that individualized counseling and training combined with loan and grant availability and other incentives are very popular and effective in helping small businesses learn about and adopt energy conservation methods.

(5) The energy saving benefit of such programs, if they can be implemented on a national basis,

would contribute significantly to our energy independence and security.

(6) New and emerging technologies are on the rise, and small businesses are leading the way, for example the vast majority of renewable fuels producers, such as biodiesel and ethanol, are small businesses.

(7) Small businesses currently use almost half of the Nation's business related energy consumption and employ half of the Nation's workforce, yet the Energy Star program, the lead Federal energy efficiency program allocates less than 2 percent of its resources to its small business program and should allocate more to educate small businesses.

(8) Therefore, it is in the national interest for the Federal Government to invest in incentives in the form of improved loan terms, additional investment inducements, and expert counseling and information to assist small businesses to develop, invest in, and purchase energy efficient buildings, equipment, fixtures, and other technology.

SEC. 3003. LARGER 504 LOAN LIMITS TO HELP BUSINESS DEVELOP ENERGY EFFICIENT TECHNOLOGIES AND PURCHASES.

(a) ELIGIBILITY FOR ENERGY EFFICIENCY PROJECTS.—Section 501(d)(3) of the Small Business Investment Act of 1958 (15 U.S.C. 695(d)(3)) is amended—

(1) in subparagraph (G) by striking ''or'' at the end;

(2) in subparagraph (H) by striking the period at the end and inserting a comma; and

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

''(I) reduction of energy consumption by at least 10 percent,

''(J) increased use of sustainable design or low-impact design to produce buildings that reduce the use of non-renewable resources, minimize environmental impact, and relate people with the natural environment, or

''(K) plant, equipment and process upgrades of renewable energy sources such as micropower or renewable fuels producers including biodiesel and ethanol producers.''.

(b) LOANS FOR PLANT PROJECTS USED FOR ENERGY-EFFICIENT PURPOSES.—Section 502(2)(A) of the

Small Business Investment Act of 1958 (15 U.S.C. 696(2)(A)) is amended—

(1) in clause (ii) by striking ''and'' at the end;

(2) in clause (iii) by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following new clauses:

''(iv) $4,000,000 for each project that reduces the borrower's energy consumption by at least 10 percent; and

''(v) $4,000,000 for each project that generates renewable energy or renewable fuels, such as biodiesel or ethanol production.''.

SEC. 3004. REDUCED 7(a) FEES AND HIGHER LOAN GUARANTEES FOR PURCHASE OF ENERGY EFFICIENT TECHNOLOGIES.

Section 7(a) of the Small Business Act (15 U.S.C. 636(a)) is amended by adding at the end the following:

''(35) LOANS FOR ENERGY EFFICIENT TECHNOLOGIES.—The Administrator shall carry out a program for loans the proceeds of which are used to purchase energy efficient equipment or fixtures or to reduce the energy consumption of the borrower, including, but not limited to, renewable fuels and en-

ergy products such as biodiesel and ethanol, by 10 percent or more. For a loan made under this paragraph, the following shall apply:

"(A) The loan shall include the participation by the Administration equal to 90 percent of the balance of the financing outstanding at the time of disbursement.

"(B) The fees on the loan under paragraphs (18) and (23) shall be reduced by half.".

SEC. 3005. SMALL BUSINESS SUSTAINABILITY INITIATIVE.

Section 21 of the Small Business Act (15 U.S.C. 648) is amended by adding at the end the following:

"(n) SMALL BUSINESS SUSTAINABILITY INITIATIVE.—

"(1) IN GENERAL.—A Small Business Development Center may apply for an additional grant to carry out a small business sustainability initiative program.

"(2) ELEMENTS OF PROGRAM.—Under a program under paragraph (1), the Center shall—

"(A) provide necessary support to smaller and medium-sized businesses to—

"(i) evaluate energy efficiency and green building opportunities;

"(ii) evaluate renewable energy sources such as the use of solar and small wind to supplement power consumption;

"(iii) secure financing to achieve energy efficiency or to construct green buildings; and

"(iv) empower management to implement energy efficiency projects;

"(B) assist entrepreneurs with clean technology development and technology commercialization through—

"(i) technology assessment;

"(ii) intellectual property;

"(iii) Small Business Innovation Research submissions;

"(iv) strategic alliances;

"(v) business model development; and

"(vi) preparation for investors; and

"(C) help small business improve environmental performance by shifting to less hazardous materials and reducing waste and emissions at the source, including by providing assistance for businesses to adapt the materials they use, the processes they operate, and the products and services they produce.

"(3) MINIMUM AMOUNT.—Each grant under this subsection shall be for at least $150,000.

"(4) MAXIMUM AMOUNT.—A grant under this subsection may not exceed $300,000.

"(5) AUTHORIZATION OF APPROPRIATIONS.—Subject to amounts approved in advance in appropriations Acts and separate from amounts approved to carry out section 21(a)(1), the Administrator may make grants or enter into cooperative agreements to carry out the provisions of this subsection.".

SEC. 3006. SMALL BUSINESS ADMINISTRATION TO EDUCATE AND PROMOTE ENERGY EFFICIENCY IDEAS TO SMALL BUSINESSES AND WORK WITH THE SMALL BUSINESS COMMUNITY TO MAKE SUCH INFORMATION WIDELY AVAILABLE.

The Small Business Act is amended—

(1) by redesignating section 37 as section 99; and

(2) by inserting after section 36 (15 U.S.C. 657f) the following:

"SEC. 37. PROGRAM TO PROVIDE EDUCATION ON ENERGY EFFICIENCY.

"(a) PROGRAM REQUIRED.—The Administrator shall develop and coordinate a Government-wide program,

building on the Energy Star for Small Business program, to assist small businesses in—

"(1) becoming more energy efficient;

"(2) understanding the cost savings from improved energy efficiency; and

"(3) identifying financing options for energy efficiency upgrades.

"(b) CONSULTATION AND COOPERATION.—The program required by subsection (a) shall be developed and coordinated—

"(1) in consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency; and

"(2) in cooperation with any entities the Administrator considers appropriate, such as industry trade associations, industry members, and energy efficiency organizations.

"(c) AVAILABILITY OF INFORMATION.—The Administrator shall make available the information and materials developed under the program required by subsection (a) to—

"(1) small businesses; and

"(2) other Federal programs for energy efficiency, such as the Energy Star for Small Business program.

"(d) STRATEGY AND REPORT.—

"(1) STRATEGY REQUIRED.—The Administrator shall develop a strategy to educate, encourage, and assist small business to adopt energy efficient building fixtures and equipment.

"(2) REPORT.—Not later than December 31, 2008, the Administrator shall submit to Congress a report containing a plan to implement the strategy.".

SEC. 3007. ENERGY SAVING DEBENTURES.

Section 303 of the Small Business Investment Act of 1958 (15 U.S.C. 683) is amended by adding at the end the following new subsection:

"(k) ENERGY SAVING DEBENTURES.—

"(1) IN GENERAL.—In addition to any other authority under this Act, a small business investment company licensed after September 30, 2007, shall have authority to issue Energy Saving debentures.

"(2) ENERGY SAVING DEBENTURE DEFINED.—As used in this Act, the term 'Energy Saving debenture' means a deferred interest debenture that—

"(A) is issued at a discount;

"(B) has a five-year maturity or a ten-year maturity;

"(C) requires no interest payment or annual charge for the first five years;

"(D) is restricted to Energy Saving qualified investments; and

"(E) is issued at no cost (as defined in section 502 of the Credit Reform Act of 1990) with respect to purchasing and guaranteeing the debenture.

"(3) ENERGY SAVING QUALIFIED INVESTMENT DEFINED.—As used in this Act, the term 'Energy Saving qualified investment' means investment in a small business that is primarily engaged in researching, manufacturing, developing, or providing products, goods, or services that reduce the use or consumption of non-renewable energy resources.".

SEC. 3008. INVESTMENTS IN ENERGY SAVING SMALL BUSINESSES.

(a) MAXIMUM LEVERAGE.—Paragraph (2) of subsection (b) of section 303 of the Small Business Investment Act of 1958 (15 U.S.C. 303(b)(2)) is amended by adding at the end the following new subparagraph:

"(D) INVESTMENTS IN ENERGY SAVING SMALL BUSINESSES.—In calculating the outstanding leverage of a company for purposes of subparagraph (A), the Administrator shall not

include the amount of the cost basis of any Energy Saving qualified investment (as defined in subsection (k)) made after September 30, 2007, by a company licensed after September 30, 2007, in a smaller enterprise, to the extent that the total of such amounts does not exceed 50 percent of the company's private capital, subject to such terms as the Administrator may impose to assure no cost (as defined in section 502 of the Federal Credit Reform Act of 1990) with respect to purchasing or guaranteeing any debenture involved.''.

(b) MAXIMUM AGGREGATE AMOUNT OF LEVERAGE.—Paragraph (4) of subsection (b) of section 303 of the Small Business Investment Act of 1958 (15 U.S.C. 303(b)(4)) is amended by adding at the end the following new subparagraph:

''(E) INVESTMENTS IN ENERGY SAVING SMALL BUSINESSES.—In calculating the aggregate outstanding leverage of a company for purposes of subparagraph (A), the Administrator shall not include the amount of the cost basis of any Energy Saving qualified investment (as defined in subsection (k)) made after September 30, 2007, by a company licensed after

September 30, 2007, in a smaller enterprise, to the extent that the total of such amounts does not exceed 50 percent of the company's private capital, subject to such terms as the Administrator may impose to assure no cost (as defined in section 502 of the Federal Credit Reform Act of 1990) with respect to purchasing or guaranteeing any debenture involved.''.

SEC. 3009. RENEWABLE FUEL CAPITAL INVESTMENT COMPANY.

Title III of the Small Business Investment Act of 1958 (15 U.S.C. 681 et seq.) is amended by adding at the end the following new part:

"PART C—RENEWABLE FUEL CAPITAL INVESTMENT PILOT PROGRAM

"SEC. 381. DEFINITIONS.

''In this part, the following definitions apply:

''(1) VENTURE CAPITAL.—The term 'venture capital' means capital in the form of equity capital investments. For the purposes of this paragraph, the term 'equity capital' has the same meaning given such term in section 303(g)(4).

''(2) RENEWABLE FUEL CAPITAL INVESTMENT COMPANY.—The term 'Renewable Fuel Capital Investment Company' means a company that—

"(A) has been granted final approval by the Administrator under section 384(e); and

"(B) has entered into a participation agreement with the Administrator.

"(3) OPERATIONAL ASSISTANCE.—The term 'operational assistance' means management, marketing, and other technical assistance that assists a small business concern with business development.

"(4) PARTICIPATION AGREEMENT.—The term 'participation agreement' means an agreement, between the Administrator and a company granted final approval under section 384(e), that—

"(A) details the company's operating plan and investment criteria; and

"(B) requires the company to make investments in smaller enterprises primarily engaged in researching, manufacturing, developing, or bringing to market renewable energy sources.

"(5) RENEWABLE ENERGY.—The term 'renewable energy means' energy derived from resources that are regenerative or that cannot be depleted, including but not limited to ethanol and biodiesel fuels.

"(6) STATE.—The term 'State' means such of the several States, the District of Columbia, the

Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other commonwealth, territory, or possession of the United States.

"SEC. 382. PURPOSES.

"The purposes of the Renewable Fuel Capital Investment Program established under this part are—

"(1) to promote the research, development, manufacture and bringing to market of renewable energy sources by encouraging venture capital investments in smaller enterprises primarily engaged such activities; and

"(2) to establish a venture capital program, with the mission of addressing the unmet equity investment needs of small enterprises engaged in researching, developing, manufacturing, and bringing to market renewable energy sources, to be administered by the Administrator—

"(A) to enter into participation agreements with Renewable Fuel Capital Investment companies;

"(B) to guarantee debentures of Renewable Fuel Capital Investment companies to enable each such company to make venture capital investments in smaller enterprises engaged in

the research, development, manufacture, and bringing to market renewable energy sources; and

"(C) to make grants to Renewable Fuel Investment Capital companies, and to other entities, for the purpose of providing operational assistance to smaller enterprises financed, or expected to be financed, by such companies.

"SEC. 383. ESTABLISHMENT.

"In accordance with this part, the Administrator shall establish a Renewable Fuel Capital Investment Program, under which the Administrator may—

"(1) enter into participation agreements with companies granted final approval under section 384(e) for the purposes set forth in section 382; and

"(2) guarantee the debentures issued by Renewable Fuel Capital Investment companies as provided in section 385.

"SEC. 384. SELECTION OF RENEWABLE FUEL CAPITAL INVESTMENT COMPANIES.

"(a) ELIGIBILITY.—A company shall be eligible to apply to participate, as a Renewable Fuel Capital Investment company, in the program established under this part if—

"(1) the company is a newly formed for-profit entity or a newly formed for-profit subsidiary of an existing entity;

"(2) the company has a management team with experience in alternative energy financing or relevant venture capital financing; and

"(3) the company has a primary objective of investment in companies that research, manufacture, develop, or bring to market renewable energy sources.

"(b) APPLICATION.—To participate, as a Renewable Fuel Capital Investment company, in the program established under this part a company meeting the eligibility requirements set forth in subsection (a) shall submit an application to the Administrator that includes—

"(1) a business plan describing how the company intends to make successful venture capital investments in smaller businesses primarily engaged in the research, manufacture, development, or bringing to market of renewable energy sources;

"(2) information regarding the relevant venture capital qualifications and general reputation of the company's management;

"(3) a description of how the company intends to seek to address the unmet capital needs of the smaller businesses served;

"(4) a proposal describing how the company intends to use the grant funds provided under this part to provide operational assistance to smaller enterprises financed by the company, including information regarding whether the company intends to use licensed professionals when necessary on the company's staff or from an outside entity;

"(5) with respect to binding commitments to be made to the company under this part, an estimate of the ratio of cash to in-kind contributions;

"(6) a description of the criteria to be used to evaluate whether and to what extent the company meets the objectives of the program established under this part;

"(7) information regarding the management and financial strength of any parent firm, affiliated firm, or any other firm essential to the success of the company's business plan; and

"(8) such other information as the Administrator may require.

"(c) CONDITIONAL APPROVAL.—

"(1) IN GENERAL.—From among companies submitting applications under subsection (b), the Administrator shall, in accordance with this subsection, conditionally approve companies to participate in the Renewable Fuel Capital Investment Program.

"(2) SELECTION CRITERIA.—In selecting companies under paragraph (1), the Administrator shall consider the following:

"(A) The likelihood that the company will meet the goal of its business plan.

"(B) The experience and background of the company's management team.

"(C) The need for venture capital investments in the geographic areas in which the company intends to invest.

"(D) The extent to which the company will concentrate its activities on serving the geographic areas in which it intends to invest.

"(E) The likelihood that the company will be able to satisfy the conditions under subsection (d).

"(F) The extent to which the activities proposed by the company will expand economic

1 opportunities in the geographic areas in which
2 the company intends to invest.
3 "(G) The strength of the company's pro-
4 posal to provide operational assistance under
5 this part as the proposal relates to the ability
6 of the applicant to meet applicable cash require-
7 ments and properly utilize in-kind contribu-
8 tions, including the use of resources for the
9 services of licensed professionals, when nec-
10 essary, whether provided by persons on the
11 company's staff or by persons outside of the
12 company.
13 "(H) Any other factors deemed appro-
14 priate by the Administrator.
15 "(3) NATIONWIDE DISTRIBUTION.—The Admin-
16 istrator shall select companies under paragraph (1)
17 in such a way that promotes investment nationwide.
18 "(d) REQUIREMENTS TO BE MET FOR FINAL AP-
19 PROVAL.—The Administrator shall grant each condi-
20 tionally approved company a period of time, not to exceed
21 2 years, to satisfy the following requirements:
22 "(1) CAPITAL REQUIREMENT.—Each condi-
23 tionally approved company shall raise not less than
24 $5,000,000 of private capital or binding capital com-
25 mitments from one or more investors (other than

1 agencies or departments of the Federal Government)
2 who met criteria established by the Administrator.
3 ''(2) NONADMINISTRATION RESOURCES FOR
4 OPERATIONAL ASSISTANCE.—
5 ''(A) IN GENERAL.—In order to provide
6 operational assistance to smaller enterprises ex-
7 pected to be financed by the company, each
8 conditionally approved company—
9 ''(i) shall have binding commitments
10 (for contribution in cash or in kind)—
11 ''(I) from any sources other than
12 the Small Business Administration
13 that meet criteria established by the
14 Administrator;
15 ''(II) payable or available over a
16 multiyear period acceptable to the Ad-
17 ministrator (not to exceed 10 years);
18 and
19 ''(III) in an amount not less than
20 30 percent of the total amount of cap-
21 ital and commitments raised under
22 paragraph (1);
23 ''(ii) shall have purchased an annu-
24 ity—

1 "(I) from an insurance company
2 acceptable to the Administrator;
3 "(II) using funds (other than the
4 funds raised under paragraph (1)),
5 from any source other than the Ad-
6 ministrator; and
7 "(III) that yields cash payments
8 over a multiyear period acceptable to
9 the Administrator (not to exceed 10
10 years) in an amount not less than 30
11 percent of the total amount of capital
12 and commitments raised under para-
13 graph (1); or
14 "(iii) shall have binding commitments
15 (for contributions in cash or in kind) of the
16 type described in clause (i) and shall have
17 purchased an annuity of the type described
18 in clause (ii), which in the aggregate make
19 available, over a multiyear period accept-
20 able to the Administrator (not to exceed 10
21 years), an amount not less than 30 percent
22 of the total amount of capital and commit-
23 ments raised under paragraph (1).
24 "(B) EXCEPTION.—The Administrator
25 may, in the discretion of the Administrator and

based upon a showing of special circumstances and good cause, consider an applicant to have satisfied the requirements of subparagraph (A) if the applicant has—

"(i) a viable plan that reasonably projects the capacity of the applicant to raise the amount (in cash or in-kind) required under subparagraph (A); and

"(ii) binding commitments in an amount equal to not less than 20 percent of the total amount required under paragraph (A).

"(C) LIMITATION.—In order to comply with the requirements of subparagraphs (A) and (B), the total amount of a company's in-kind contributions may not exceed 50 percent of the company's total contributions.

"(e) FINAL APPROVAL; DESIGNATION.—The Administrator shall, with respect to each applicant conditionally approved to operate as a Renewable Fuel Capital Investment Company under subsection (c), either—

"(1) grant final approval to the applicant to operate as a Renewable Fuel Capital Investment company under this part and designate the applicant as such a company, if the applicant—

"(A) satisfies the requirements of subsection (d) on or before the expiration of the time period described in that subsection; and

"(B) enters into a participation agreement with the Administrator; or

"(2) if the applicant fails to satisfy the requirements of subsection (d) on or before the expiration of the time period described in that subsection, revoke the conditional approval granted under that subsection.

"SEC. 385. DEBENTURES.

"(a) IN GENERAL.—The Administrator may guarantee the timely payment of principal and interest, as scheduled, on debentures issued by any Renewable Fuel Capital Investment company.

"(b) TERMS AND CONDITIONS.—The Administrator may make guarantees under this section on such terms and conditions as it deems appropriate, except that the term of any debenture guaranteed under this section shall not exceed 15 years.

"(c) FULL FAITH AND CREDIT OF THE UNITED STATES.—The full faith and credit of the United States is pledged to pay all amounts that may be required to be paid under any guarantee under this part.

"(d) MAXIMUM GUARANTEE.—

"(1) IN GENERAL.—Under this section, the Administrator may guarantee the debentures issued by a Renewable Fuel Capital Investment company only to the extent that the total face amount of outstanding guaranteed debentures of such company does not exceed 150 percent of the private capital of the company, as determined by the Administrator.

"(2) TREATMENT OF CERTAIN FEDERAL FUNDS.—For the purposes of paragraph (1), private capital shall include capital that is considered to be Federal funds, if such capital is contributed by an investor other than an agency or department of the Federal Government.

"SEC. 386. ISSUANCE AND GUARANTEE OF TRUST CERTIFICATES.

"(a) ISSUANCE.—The Administrator may issue trust certificates representing ownership of all or a fractional part of debentures issued by a Renewable Fuel Capital Investment company and guaranteed by the Administrator under this part, if such certificates are based on and backed by a trust or pool approved by the Administrator and composed solely of guaranteed debentures.

"(b) GUARANTEE.—

"(1) IN GENERAL.—The Administrator may, under such terms and conditions as it deems appro-

priate, guarantee the timely payment of the principal of and interest on trust certificates issued by the Administrator or its agents for purposes of this section.

"(2) LIMITATION.—Each guarantee under this subsection shall be limited to the extent of principal and interest on the guaranteed debentures that compose the trust or pool.

"(3) PREPAYMENT OR DEFAULT.—In the event that a debenture in a trust or pool is prepaid, or in the event of default of such a debenture, the guarantee of timely payment of principal and interest on the trust certificates shall be reduced in proportion to the amount of principal and interest such prepaid debenture represents in the trust or pool. Interest on prepaid or defaulted debentures shall accrue and be guaranteed by the Administrator only through the date of payment of the guarantee. At any time during its term, a trust certificate may be called for redemption due to prepayment or default of all debentures.

"(c) FULL FAITH AND CREDIT OF THE UNITED STATES.—The full faith and credit of the United States is pledged to pay all amounts that may be required to be

1 paid under any guarantee of a trust certificate issued by
2 the Administrator or its agents under this section.
3 "(d) FEES.—The Administrator shall not collect a fee
4 for any guarantee of a trust certificate under this section,
5 but any agent of the Administrator may collect a fee ap-
6 proved by the Administrator for the functions described
7 in subsection (f)(2).
8 "(e) SUBROGATION AND OWNERSHIP RIGHTS.—
9 "(1) SUBROGATION.—In the event the Adminis-
10 trator pays a claim under a guarantee issued under
11 this section, it shall be subrogated fully to the rights
12 satisfied by such payment.
13 "(2) OWNERSHIP RIGHTS.—No Federal, State,
14 or local law shall preclude or limit the exercise by
15 the Administrator of its ownership rights in the de-
16 bentures residing in a trust or pool against which
17 trust certificates are issued under this section.
18 "(f) MANAGEMENT AND ADMINISTRATION.—
19 "(1) REGISTRATION.—The Administrator may
20 provide for a central registration of all trust certifi-
21 cates issued under this section.
22 "(2) CONTRACTING OF FUNCTIONS.—
23 "(A) IN GENERAL.—The Administrator
24 may contract with an agent or agents to carry
25 out on behalf of the Administrator the pooling

and the central registration functions provided for in this section including, notwithstanding any other provision of law—

"(i) maintenance, on behalf of and under the direction of the Administrator, of such commercial bank accounts or investments in obligations of the United States as may be necessary to facilitate the creation of trusts or pools backed by debentures guaranteed under this part; and

"(ii) the issuance of trust certificates to facilitate the creation of such trusts or pools.

"(B) FIDELITY BOND OR INSURANCE REQUIREMENT.—Any agent performing functions on behalf of the Administrator under this paragraph shall provide a fidelity bond or insurance in such amounts as the Administrator determines to be necessary to fully protect the interests of the United States.

"(3) REGULATION OF BROKERS AND DEALERS.—The Administrator may regulate brokers and dealers in trust certificates issued under this section.

"(4) ELECTRONIC REGISTRATION.—Nothing in this subsection may be construed to prohibit the use

of a book-entry or other electronic form of registration for trust certificates issued under this section.

"SEC. 387. FEES.

"(a) IN GENERAL.—Except as provided in section 386(d), the Administrator may charge such fees as it deems appropriate with respect to any guarantee or grant issued under this part, in an amount established annually by the Administration, as necessary to reduce to zero the cost (as defined in section 502 of the Federal Credit Reform Act of 1990) to the Administration of purchasing and guaranteeing debentures under this Act, which amounts shall be paid to and retained by the Administration.

"(b) OFFSET.—The Administrator may, as provided by section 388, offset fees changed and collected under subsection (a).

"SEC. 388. FEE CONTRIBUTION.

"(a) IN GENERAL.—To the extent that amounts are made available to the Administrator for the purpose of fee contributions, the administrator shall contribute to fees paid by the Renewable Fuel Capital Investment companies under section 387.

"(b) ANNUAL ADJUSTMENT.—Each fee contribution under subsection (a) shall be effective for one fiscal year and shall be adjusted as necessary for each fiscal year

thereafter to ensure that amounts under subsection (a) are fully used. The fee contribution for a fiscal year shall be based on the outstanding commitments made and the guarantees and grants that the Administrator projects will be made during that fiscal year, given the program level authorized by law for that fiscal year and any other factors that the Administrator deems appropriate.

"SEC. 389. OPERATIONAL ASSISTANCE GRANTS.

"(a) IN GENERAL.—

"(1) AUTHORITY.—In accordance with this section, the Administrator may make grants to Renewable Fuel Capital Investment companies and to other entities, as authorized by this part, to provide operational assistance to smaller enterprises financed, or expected to be financed, by such companies or other entities.

"(2) TERMS.—Grants made under this subsection shall be made over a multiyear period not to exceed 10 years, under such other terms as the Administrator may require.

"(3) GRANTS TO SPECIALIZED SMALL BUSINESS INVESTMENT COMPANIES.—

"(A) AUTHORITY.—In accordance with this section, the Administrator may make grants to specialized small business investment

companies to provide operational assistance to smaller enterprises financed, or expected to be financed, by such companies after the effective date of the Small Energy Efficient Businesses Act.

"(B) USE OF FUNDS.—The proceeds of a grant made under this paragraph may be used by the company receiving such grant only to provide operational assistance in connection with an equity investment (made with capital raised after the effective date of the Small Energy Efficient Businesses Act) in a business located in a low-income geographic area.

"(C) SUBMISSION OF PLANS.—A specialized small business investment company shall be eligible for a grant under this section only if the company submits to the Administrator, in such form and manner as the Administrator may require, a plan for use of the grant.

"(4) GRANT AMOUNT.—

"(A) RENEWABLE FUEL CAPITAL INVESTMENT COMPANIES.—The amount of a grant made under this subsection to a Renewable Fuel Capital Investment company shall be equal

to the resources (in cash or in kind) raised by the company under section 354(d)(2).

"(B) OTHER ENTITIES.—The amount of a grant made under this subsection to any entity other than a Renewable Fuel Capital Investment company shall be equal to the resources (in cash or in kind) raised by the entity in accordance with the requirements applicable to Renewable Fuel Capital Investment companies set forth in section 384(d)(2).

"(5) PRO RATA REDUCTIONS.—If the amount made available to carry out this section is insufficient for the Administrator to provide grants in the amounts provided for in paragraph (4), the Administrator shall make pro rata reductions in the amounts otherwise payable to each company and entity under such paragraph.

"(b) SUPPLEMENTAL GRANTS.—

"(1) IN GENERAL.—The Administrator may make supplemental grants to Renewable Fuel Capital Investment companies and to other entities, as authorized by this part under such terms as the Administrator may require, to provide additional operational assistance to smaller enterprises financed, or expected to be financed, by the companies.

"(2) MATCHING REQUIREMENT.—The Administrator may require, as a condition of any supplemental grant made under this subsection, that the company or entity receiving the grant provide from resources (in a cash or in kind), other then those provided by the Administrator, a matching contribution equal to the amount of the supplemental grant.

"(c) LIMITATION.—None of the assistance made available under this section may be used for any overhead or general and administrative expense of a Renewable Fuel Capital Investment company or a specialized small business investment company.

"SEC. 390. BANK PARTICIPATION.

"(a) IN GENERAL.—Except as provided in subsection (b), any national bank, any member bank of the Federal Reserve System, and (to the extent permitted under applicable State law) any insured bank that is not a member of such system, may invest in any Renewable Fuel Capital Investment company, or in any entity established to invest solely in Renewable Fuel Capital Investment companies.

"(b) LIMITATION.—No bank described in subsection (a) may make investments described in such subsection that are greater than 5 percent of the capital and surplus of the bank.

"SEC. 391. FEDERAL FINANCING BANK.

"Section 318 shall not apply to any debenture issued by a Renewable Fuel Capital Investment company under this part.

"SEC. 392. REPORTING REQUIREMENT.

"Each Renewable Fuel Capital Investment company that participates in the program established under this part shall provide to the Administrator such information as the Administrator may require, including—

"(1) information related to the measurement criteria that the company proposed in its program application; and

"(2) in each case in which the company under this part makes an investment in, or a loan or a grant to, a business that is not primarily engaged in the research, development, manufacture, or bringing to market or renewable energy sources, a report on the nature, origin, and revenues of the business in which investments are made.

"SEC. 393. EXAMINATIONS.

"(a) IN GENERAL.—Each Renewable Fuel Capital Investment company that participates in the program established under this part shall be subject to examinations made at the direction of the Investment Division of the Small Business Administration in accordance with this section.

"(b) ASSISTANCE OF PRIVATE SECTOR ENTITIES.—Examinations under this section may be conducted with the assistance of a private sector entity that has both the qualifications and the expertise necessary to conduct such examinations.

"(c) COSTS.—

"(1) ASSESSMENT.—

"(A) IN GENERAL.—The Administrator may assess the cost of examinations under this section, including compensation of the examiners, against the company examined.

"(B) PAYMENT.—Any company against which the Administrator assesses costs under this paragraph shall pay such costs.

"(2) DEPOSIT OF FUNDS.—Funds collected under this section shall be deposited in the account for salaries and expenses of the Small Business Administration.

"SEC. 394. MISCELLANEOUS.

"To the extent such procedures are not inconsistent with the requirements of this part, the Administrator may take such action as set forth in sections 309, 311, 312, and 314 of this Act.

"SEC. 395. REMOVAL OR SUSPENSION OF DIRECTORS OR OFFICERS.

"Using the procedures for removing or suspending a director or an officer of a licensee set forth in section 313 (to the extent such procedures are not inconsistent with the requirements of this part), the Administrator may remove or suspend any director or officer of any Renewable Fuel Capital Investment company.

"SEC. 396. REGULATIONS.

"The Administrator may issue such regulations as it deems necessary to carry out the provisions of this part in accordance with its purposes.

"SEC. 397. AUTHORIZATIONS OF APPROPRIATIONS.

"(a) GRANTS.—The Administrator is authorized to make $15,000,000 per fiscal year in operational assistance grants.

"(b) FUNDS COLLECTED FOR EXAMINATIONS.—Funds deposited under section 393(c)(2) are authorized to be appropriated only for the costs of examinations under section 393 and for the costs of other oversight activities with respect to the program established under this part.".

SEC. 3010. STUDY AND REPORT.

The Administrator shall conduct a study of the Renewable Fuel Capital Investment Program under part C of title III of the Small Business Investment Act of 1958.

Not later than 3 years after the date of the enactment of this Act, the Administrator shall complete the study and submit to the Congress a report of the results of the study.

TITLE IV—SCIENCE AND TECHNOLOGY

Subtitle A—Advanced Research Projects Agency-Energy

SEC. 4001. ADVANCED RESEARCH PROJECTS AGENCY-ENERGY.

(a) ESTABLISHMENT.—There is established the Advanced Research Projects Agency-Energy (in this subtitle referred to as ''ARPA–E'') within the Department of Energy to overcome the long-term and high-risk technological barriers in the development of energy technologies.

(b) GOALS.—The goals of ARPA–E are to enhance the Nation's economic and energy security through the development of energy technologies that result in reductions of imports of energy from foreign sources, reductions of energy-related emissions including greenhouse gases, improvements in the energy efficiency of all economic sectors, and to ensure that the United States maintains a technological lead in developing and deploying energy technologies. ARPA–E will achieve this by—

(1) identifying and promoting revolutionary advances in fundamental sciences;

(2) translating scientific discoveries and cutting-edge inventions into technological innovations; and

(3) accelerating transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty.

(c) DIRECTOR.—ARPA–E shall be headed by a Director who shall be appointed by the Secretary of Energy. The Director shall report to the Secretary. No other programs within the Department of Energy shall report to the Director of ARPA–E.

(d) RESPONSIBILITIES.—The Director shall administer the Fund established under section 4002 to award competitive grants, cooperative agreements, or contracts to institutions of higher education, companies, research foundations, trade and industry research collaborations, or consortia of such entities which may include federally funded research and development centers, to achieve the goals stated in subsection (b) through targeted acceleration of—

(1) novel early-stage energy research with possible technology applications;

(2) development of techniques, processes, and technologies, and related testing and evaluation;

(3) research and development of manufacturing processes for novel energy technologies; and

(4) demonstration and coordination with non-governmental entities for commercial applications of energy technologies and research applications.

(e) PERSONNEL.—

(1) PROGRAM MANAGERS.—The Director shall designate employees to serve as program managers for each of the programs established pursuant to the responsibilities established for ARPA–E under subsection (d). Program managers shall be responsible for—

(A) establishing research and development goals for the program, including through the convening of workshops and conferring with outside experts, as well as publicizing the goals to the public and private sectors;

(B) soliciting applications for specific areas of particular promise, especially those which the private sector or the Federal Government are not likely to undertake alone;

(C) building research collaborations for carrying out the program;

(D) selecting on the basis of merit, with advice under section 4003 as appropriate, each of the energy projects to be supported under the program following consideration of—

(i) the novelty and scientific and technical merit of the proposed projects;

(ii) the demonstrated capabilities of the applicants to successfully carry out the proposed research project;

(iii) the applicant's consideration of future commercial applications of the project, including the feasibility of partnering with 1 or more commercial entities; and

(iv) such other criteria as are established by the Director; and

(E) monitoring the progress of projects supported under the program, and prescribing program restructure or termination of research partnerships or whole projects that do not show promise.

(2) HIRING AND MANAGEMENT.—In hiring personnel for ARPA–E, the Director shall have the authority to make appointments of scientific, engineering, and professional personnel without regard to the

civil service laws, and fix the compensation of such personnel at a rate to be determined by the Director. The term of appointments for employees may not exceed 3 years before the granting of any extension. In hiring initial staff the Secretary shall give preference to applicants with experience in the Defense Advanced Research Projects Agency, academia, or in private sector technology development. The Secretary or Director may contract with private recruiting firms in hiring qualified technical staff.

(3) ADDITIONAL HIRING.—The Director may hire additional technical, financial, managerial, or other staff as needed to carry out the activities of the program.

(f) COORDINATION AND NONDUPLICATION.—To the extent practicable, the Director shall ensure that the activities of ARPA–E are coordinated with, and do not duplicate the efforts of, existing programs and laboratories within the Department of Energy and other relevant research agencies. Where appropriate, the Director may coordinate technology transfer efforts with the Technology Transfer Coordinator established in section 1001 of the Energy Policy Act of 2005 (42 U.S.C. 16391).

(g) FEDERAL DEMONSTRATION OF TECHNOLOGIES.—The Secretary shall make information avail-

able to purchasing and procurement programs of Federal agencies regarding the potential to demonstrate technologies resulting from activities funded through ARPA–E.

SEC. 4002. FUND.

(a) ESTABLISHMENT.—There is established in the Treasury the Energy Transformation Acceleration Fund (in this subtitle referred to as the ''Fund''), which shall be administered by the Director of ARPA–E for the purposes of carrying out this subtitle.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director of ARPA–E for deposit in the Fund $300,000,000 for fiscal year 2008, $1,000,000,000 for fiscal year 2009, $1,100,000,000 for fiscal year 2010, $1,200,000,000 for fiscal year 2011, and $1,300,000,000 for fiscal year 2012, to remain available until expended.

(c) LIMITATION.—No amounts may be appropriated for the first year of funding for ARPA–E unless the amount appropriated for the activities of the Office of Science of the Department of Energy for that fiscal year exceed the amount appropriated for that Office for fiscal year 2007, as adjusted for inflation according to the Consumer Price Index.

(d) ALLOCATION.—Of the amounts appropriated for a fiscal year under subsection (b)—

(1) not more than 50 percent shall be for activities under section 4001(d)(4);

(2) not more than 8 percent shall be made available to Federally Funded Research and Development Centers;

(3) not more than 10 percent may be used for administrative expenses;

(4) at least 2.5 percent shall be designated for technology transfer and outreach activities; and

(5) during the first 5 years of operation of ARPA–E, no funds may be used for construction of new buildings or facilities.

SEC. 4003. ADVICE.

(a) ADVISORY COMMITTEES.—The Director may seek advice on any aspect of ARPA–E from—

(1) existing Department of Energy advisory committees; and

(2) new advisory committees organized to support the programs of ARPA–E and to provide advice and assistance on—

(A) specific program tasks; or

(B) overall direction of ARPA–E.

(b) ADDITIONAL SOURCES OF ADVICE.—The Director may seek advice and review from the National Academy of Sciences, the National Academy for Engineering, and any other professional or scientific organization with expertise in specific processes or technologies under development by ARPA–E.

SEC. 4004. ARPA–E EVALUATION.

After ARPA–E has been in operation for 54 months, the President's Committee on Science and Technology shall begin an evaluation (to be completed within 12 months) of how well ARPA–E is achieving its goals and mission. The evaluation shall include the recommendation of such Committee on whether ARPA–E should be continued or terminated, as well as lessons-learned from its operation. The evaluation shall be made available to Congress and to the public upon completion.

SEC. 4005. SAVINGS CLAUSE.

The authorities granted by this subtitle are in addition to existing authorities granted to the Secretary of Energy, and not intended to supersede or modify any existing authorities.

Subtitle B—Marine Renewable Energy Technologies

SEC. 4101. SHORT TITLE.

This subtitle may be cited as the ''Marine Renewable Energy Research and Development Act of 2007''.

SEC. 4102. FINDINGS.

The Congress finds the following:

(1) The United States has a critical national interest in developing clean, domestic, renewable sources of energy in order to reduce environmental impacts of energy production, increase national security, improve public health, and bolster economic stability.

(2) Marine renewable energy technologies are a nonemitting source of power production.

(3) Marine renewable energy may serve as an alternative to fossil fuels and create thousands of new jobs within the United States.

(4) Europe has already successfully delivered electricity to the grid through the deployment of wave and tidal energy devices off the coast of Scotland.

(5) Recent studies from the Electric Power Research Institute, in conjunction with the Department of Energy's National Renewable Energy Laboratory,

have identified an abundance of viable sites within the United States with ample wave and tidal resources to be harnessed by marine power technologies.

(6) Sustained and expanded research, development, demonstration, and commercial application programs are needed to locate and characterize marine renewable energy resources, and to develop the technologies that will enable their widespread commercial development.

(7) Federal support is critical to reduce the financial risk associated with developing new marine renewable energy technologies, thereby encouraging the private sector investment necessary to make marine renewable energy resources commercially viable as a source of electric power and for other applications.

SEC. 4103. DEFINITIONS.

For purposes of this subtitle—

(1) MARINE RENEWABLE ENERGY.—The term ''Marine Renewable Energy'' means energy derived from one or more of the following sources:

(A) Waves.

(B) Tidal flows.

(C) Ocean currents.

(D) Ocean thermal energy conversion.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

SEC. 4104. MARINE RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary, in conjunction with other appropriate agencies, shall support programs of research, development, demonstration, and commercial application to expand marine renewable energy production, including programs to—

(1) study and compare existing marine renewable energy extraction technologies;

(2) research, develop, and demonstrate advanced marine renewable energy systems and technologies;

(3) reduce the manufacturing and operation costs of marine renewable energy technologies;

(4) investigate efficient and reliable integration with the utility grid and intermittency issues;

(5) advance wave forecasting technologies;

(6) conduct experimental and numerical modeling for optimization of marine energy conversion devices and arrays;

(7) increase the reliability and survivability of marine renewable energy technologies, including development of corrosive-resistant materials;

(8) study, in conjunction with the Assistant Administrator for Research and Development of the Environmental Protection Agency, the Undersecretary of Commerce for Oceans and Atmosphere, and other Federal agencies as appropriate, the environmental impacts of marine renewable energy technologies and ways to address adverse impacts, and provide public information concerning technologies and other means available for monitoring and determining environmental impacts;

(9) establish protocols, in conjunction with the National Oceanic and Atmospheric Administration, for how the ocean community may best interact with marine renewable energy devices;

(10) develop power measurement standards for marine renewable energy;

(11) develop identification standards for marine renewable energy devices;

(12) address standards development, demonstration, and technology transfer for advanced systems engineering and system integration methods to identify critical interfaces; and

(13) utilize marine resources in the Gulf of Mexico, the Atlantic Ocean, and the Pacific Ocean.

(b) SITING CRITERIA.—The Secretary, in conjunction with other appropriate Federal agencies, shall develop, prior to installation of any technologies under this section, siting criteria for marine renewable energy generation demonstration and commercial application projects funded under this subtitle.

SEC. 4105. NATIONAL MARINE RENEWABLE ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION CENTERS.

(a) CENTERS.—The Secretary, acting through the National Renewable Energy Laboratory, shall award grants to institutions of higher education (or consortia thereof) for the establishment of 1 or more National Marine Renewable Energy Research, Development, and Demonstration Centers. In selecting locations for Centers, the Secretary shall consider sites that meet one of the following criteria:

(1) Hosts an existing marine renewable energy research and development program in coordination with a public university engineering program.

(2) Has proven expertise to support environmental and policy-related issues associated with harnessing of energy in the marine environment.

(3) Has access to and utilizes the marine resources in the Gulf of Mexico, the Atlantic Ocean, or the Pacific Ocean.

The Secretary may give special consideration to historically black colleges and universities and land grant universities that also meet one of these criteria. In establishing criteria for the selection of Centers, the Secretary shall coordinate with the Undersecretary of Commerce for Oceans and Atmosphere on the criteria related to advancing wave forecasting technologies, studying the compatibility with the environment of marine renewable energy technologies and systems, and establishing protocols for how the ocean community best interacts with marine renewable energy devices and parks.

(b) PURPOSES.—The Centers shall advance research, development, demonstration, and commercial application of marine renewable energy through a number of initiatives including for the purposes described in section 4104(1) through (13), and shall serve as an information clearinghouse for the marine renewable energy industry, collecting and disseminating information on best practices in all areas related to developing and managing enhanced marine renewable energy systems resources.

(c) DEMONSTRATION OF NEED.—When applying for a grant under this section, an applicant shall include a

description of why Federal support is necessary for the Center, including evidence that the research of the Center will not be conducted in the absence of Federal support.

SEC. 4106. APPLICABILITY OF OTHER LAWS.

Nothing in this subtitle shall be construed as waiving the applicability of any requirement under any environmental or other Federal or State law.

SEC. 4107. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this subtitle $50,000,000 for each of the fiscal years 2008 through 2012, except that no funds shall be appropriated under this section for activities that are receiving funds under section 931(a)(2)(E)(i) of the Energy Policy Act of 2005 (42 U.S.C. 16231(a)(2)(E)(i)).

Subtitle C—Geothermal Energy

SEC. 4201. SHORT TITLE.

This subtitle may be cited as the ''Advanced Geothermal Energy Research and Development Act of 2007''.

SEC. 4202. FINDINGS.

The Congress finds the following:

(1) The United States has a critical national interest in developing clean, domestic, renewable sources of energy in order to mitigate the causes of climate change, reduce other environmental impacts

of energy production, increase national security, improve public health, and bolster economic stability.

(2) Geothermal energy is a renewable energy resource.

(3) Geothermal energy is unusual among renewable energy sources because of its ability to provide an uninterrupted supply of baseload electricity.

(4) Recently published assessments by reputable experts, including the Massachusetts Institute of Technology, the Western Governors Association, and the National Renewable Energy Laboratory, indicate that the Nation's geothermal resources are widely distributed, vast in size, and barely tapped.

(5) Sustained and expanded research, development, demonstration, and commercial application programs are needed to locate and characterize geothermal resources, and to develop the technologies that will enable their widespread commercial development.

(6) Federal support is critical to reduce the financial risk associated with developing new geothermal technologies, thereby encouraging the private sector investment necessary to make geothermal resources commercially viable as a source of electric power and for other applications.

SEC. 4203. DEFINITIONS.

For purposes of this subtitle:

(1) ENGINEERED.—When referring to enhanced geothermal systems, the term ''engineered'' means subjected to intervention, including intervention to address one or more of the following issues:

(A) Lack of effective permeability or porosity or open fracture connectivity within the reservoir.

(B) Insufficient contained geofluid in the reservoir.

(C) A low average geothermal gradient, which necessitates deeper drilling.

(2) ENHANCED GEOTHERMAL SYSTEMS.—The term ''enhanced geothermal systems'' means geothermal reservoir systems that are engineered, as opposed to occurring naturally.

(3) GEOFLUID.—The term ''geofluid'' means any fluid used to extract thermal energy from the Earth which is transported to the surface for direct use or electric power generation, except that such term shall not include oil or natural gas.

(4) GEOPRESSURED RESOURCES.—The term ''geopressured resources'' mean geothermal deposits found in sedimentary rocks under higher than normal pressure and saturated with gas or methane.

(5) GEOTHERMAL.—The term ''geothermal'' refers to heat energy stored in the Earth's crust that can be accessed for direct use or electric power generation.

(6) HYDROTHERMAL.—The term ''hydrothermal'' refers to naturally occurring subsurface reservoirs of hot water or steam.

(7) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(8) SYSTEMS APPROACH.—The term ''systems approach'' means an approach to solving problems or designing systems that attempts to optimize the performance of the overall system, rather than a particular component of the system.

SEC. 4204. HYDROTHERMAL RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary shall support programs of research, development, demonstration, and commercial application to expand the use of geothermal energy production from hydrothermal systems, including the programs described in subsection (b).

(b) PROGRAMS.—

(1) ADVANCED HYDROTHERMAL RESOURCE TOOLS.—The Secretary, in consultation with other appropriate agencies, shall support a program to de-

velop advanced geophysical, geochemical, and geologic tools to assist in locating hidden hydrothermal resources, and to increase the reliability of site characterization before, during, and after initial drilling. The program shall develop new prospecting techniques to assist in prioritization of targets for characterization. The program shall include a field component.

(2) INDUSTRY COUPLED EXPLORATORY DRILLING.—The Secretary shall support a program of cost-shared field demonstration programs, to be pursued, simultaneously and independently, in collaboration with industry partners, for the demonstration of technologies and techniques of siting and exploratory drilling for undiscovered resources in a variety of geologic settings. The program shall include incentives to encourage the use of advanced technologies and techniques.

SEC. 4205. GENERAL GEOTHERMAL SYSTEMS RESEARCH AND DEVELOPMENT.

(a) SUBSURFACE COMPONENTS AND SYSTEMS.—The Secretary shall support a program of research, development, demonstration, and commercial application of components and systems capable of withstanding extreme geothermal environments and necessary to cost-effectively de-

velop, produce, and monitor geothermal reservoirs and produce geothermal energy. These components and systems shall include advanced casing systems (expandable tubular casing, low-clearance casing designs, and others), high-temperature cements, high-temperature submersible pumps, and high-temperature packers, as well as technologies for under-reaming, multilateral completions, high-temperature logging, and logging while drilling.

(b) RESERVOIR PERFORMANCE MODELING.—The Secretary shall support a program of research, development, demonstration, and commercial application of models of geothermal reservoir performance, with an emphasis on accurately modeling performance over time. Models shall be developed to assist both in the development of geothermal reservoirs and to more accurately account for stress-related effects in stimulated hydrothermal and enhanced geothermal systems production environments.

(c) ENVIRONMENTAL IMPACTS.—The Secretary shall—

(1) support a program of research, development, demonstration, and commercial application of technologies and practices designed to mitigate or preclude potential adverse environmental impacts of geothermal energy development, production or use, and seek to ensure that geothermal energy develop-

ment is consistent with the highest practicable standards of environmental stewardship; and

(2) in conjunction with the Assistant Administrator for Research and Development at the Environmental Protection Agency, support a research program to identify potential environmental impacts of geothermal energy development, production, and use, and ensure that the program described in paragraph (1) addresses such impacts, including effects on groundwater and local hydrology.

Any potential environmental impacts identified as part of the development, production, and use of geothermal energy shall be measured and examined against the potential emissions offsets of greenhouses gases gained by geothermal energy development, production, and use.

SEC. 4206. ENHANCED GEOTHERMAL SYSTEMS RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary shall support a program of research, development, demonstration, and commercial application for enhanced geothermal systems, including the programs described in subsection (b).

(b) PROGRAMS.—

(1) ENHANCED GEOTHERMAL SYSTEMS TECHNOLOGIES.—The Secretary shall support a program of research, development, demonstration, and com-

mercial application of the technologies and knowledge necessary for enhanced geothermal systems to advance to a state of commercial readiness, including advances in—

(A) reservoir stimulation;

(B) reservoir characterization, monitoring, and modeling;

(C) stress mapping;

(D) tracer development;

(E) three-dimensional tomography;

(F) understanding seismic effects of reservoir engineering and stimulation; and

(G) laser-based drilling technology.

(2) ENHANCED GEOTHERMAL SYSTEMS RESERVOIR STIMULATION.—

(A) PROGRAM.—In collaboration with industry partners, the Secretary shall support a program of research, development, and demonstration of enhanced geothermal systems reservoir stimulation technologies and techniques. A minimum of 5 sites shall be selected in locations that show particular promise for enhanced geothermal systems development. Each site shall—

(i) represent a different class of subsurface geologic environments; and

(ii) take advantage of an existing site where subsurface characterization has been conducted or existing drill holes can be utilized, if possible.

(B) CONSIDERATION OF EXISTING SITES.—The following 2 sites, where Department of Energy and industry cooperative enhanced geothermal systems projects are already underway, may be considered for inclusion among the sites selected under subparagraph (A):

(i) Desert Peak, Nevada.

(ii) Coso, California.

SEC. 4207. GEOTHERMAL ENERGY PRODUCTION FROM OIL AND GAS FIELDS AND RECOVERY AND PRODUCTION OF GEOPRESSURED GAS RESOURCES.

(a) IN GENERAL.—The Secretary shall establish a program of research, development, demonstration, and commercial application to support development of geothermal energy production from oil and gas fields and production and recovery of energy from geopressured resources. In addition, the Secretary shall conduct such sup-

porting activities including research, resource characterization, and technology development as necessary.

(b) GEOTHERMAL ENERGY PRODUCTION FROM OIL AND GAS FIELDS.—The Secretary shall implement a grant program in support of geothermal energy production from oil and gas fields. The program shall include grants for a total of not less than three demonstration projects of the use of geothermal techniques such as organic rankine cycle systems at marginal, unproductive, and productive oil and gas wells. The Secretary shall, to the extent practicable and in the public interest, make awards that—

(1) include not less than five oil or gas well sites per project award;

(2) use a range of oil or gas well hot water source temperatures from 150 degrees Fahrenheit to 300 degrees Fahrenheit;

(3) cover a range of sizes up to one megawatt;

(4) are located at a range of sites;

(5) can be replicated at a wide range of sites;

(6) facilitate identification of optimum techniques among competing alternatives;

(7) include business commercialization plans that have the potential for production of equipment at high volumes and operation and support at a large number of sites; and

(8) satisfy other criteria that the Secretary determines are necessary to carry out the program and collect necessary data and information.

The Secretary shall give preference to assessments that address multiple elements contained in paragraphs (1) through (8).

(c) GRANT AWARDS.—Each grant award for demonstration of geothermal technology such as organic rankine cycle systems at oil and gas wells made by the Secretary under subsection (b) shall include—

(1) necessary and appropriate site engineering study;

(2) detailed economic assessment of site specific conditions;

(3) appropriate feasibility studies to determine whether the demonstration can be replicated;

(4) design or adaptation of existing technology for site specific circumstances or conditions;

(5) installation of equipment, service, and support;

(6) operation for a minimum of one year and monitoring for the duration of the demonstration; and

(7) validation of technical and economic assumptions and documentation of lessons learned.

(d) GEOPRESSURED GAS RESOURCE RECOVERY AND PRODUCTION.—(1) The Secretary shall implement a program to support the research, development, demonstration, and commercial application of cost-effective techniques to produce energy from geopressured resources situated in and near the Gulf of Mexico.

(2) The Secretary shall solicit preliminary engineering designs for geopressured resources production and recovery facilities.

(3) Based upon a review of the preliminary designs, the Secretary shall award grants, which may be cost-shared, to support the detailed development and completion of engineering, architectural and technical plans needed to support construction of new designs.

(4) Based upon a review of the final design plans above, the Secretary shall award cost-shared development and construction grants for demonstration geopressured production facilities that show potential for economic recovery of the heat, kinetic energy and gas resources from geopressured resources.

(e) COMPETITIVE GRANT SELECTION.—Not less than 90 days after the date of the enactment of this Act, the Secretary shall conduct a national solicitation for applications for grants under the programs outlined in subsections (b) and (d). Grant recipients shall be selected on

a competitive basis based on criteria in the respective subsection.

(f) WELL DRILLING.—No funds may be used under this section for the purpose of drilling new wells.

SEC. 4208. COST SHARING AND PROPOSAL EVALUATION.

(a) FEDERAL SHARE.—(1) The Federal share of costs of projects funded under this subtitle shall be in accordance with section 988 of the Energy Policy Act of 2005.

(2) The Secretary may waive the Federal cost share requirement for grants awarded to universities, national laboratories, or similar noncommercial entities awarded grants under this subtitle.

(3) The Secretary shall allow for a competitive bidding process to play a role in determining the final cost-share ratio.

(b) ORGANIZATION AND ADMINISTRATION OF PROGRAMS.—Programs under this subtitle shall incorporate the following organizational and administrative elements:

(1) Non-Federal participants shall be chosen through a competitive selection process.

(2) The request for proposals for each program shall stipulate, at a minimum, the following:

(A) The non-Federal funding requirements for projects.

(B) The funding mechanism to be used (i.e. grants, contracts, or cooperative agreements).

(C) Milestones and a schedule for completion.

(D) Criteria for evaluating proposals.

(3) In evaluating proposals, the Secretary shall give priority to proposals that draw on relevant expertise from industry, academia, and the national laboratories, as appropriate.

(4) The Secretary shall coordinate with, and where appropriate may provide funds in furtherance of the purposes of this subtitle to, other Department of Energy research and development programs focused on drilling, subsurface characterization, and other related technologies.

(5) In evaluating proposals, the Secretary shall consult with relevant experts from industry, academia, and the national laboratories, as appropriate.

(6) In evaluating proposals, the Secretary shall give priority to proposals that demonstrate clear evidence of employing a systems approach.

(7) In evaluating proposals for projects with a field component, the Secretary shall, where appropriate, give priority consideration to proposals that

contain provisions to study local environmental impacts of the technologies developed or the operations undertaken.

(8) In evaluating proposals, the Secretary, in coordination with other appropriate agencies, shall seek to ensure that no funding authorized under this subtitle is awarded to any project that would result in adverse impacts to land, water, or other resources within the National Wilderness Preservation System, the National Park System, the National Wildlife Refuge System, the National Landscape Conservation System, the National Wild and Scenic Rivers System, the National Trails System, any National Monument, any Wilderness Study Area, any Research Natural Area, any National Marine Sanctuary, any Inventoried Roadless Area, or any Area of Critical Environmental Concern.

(9) Scientific data collected as a result of any project supported with funds provided under this subtitle shall be made available to the public.

SEC. 4209. CENTERS FOR GEOTHERMAL TECHNOLOGY TRANSFER.

(a) IN GENERAL.—The Secretary shall award grants to institutions of higher education (or consortia thereof)

1 to establish 2 Centers for Geothermal Technology Trans-
2 fer.
3 (b) CENTERS.—
4 (1) HYDROTHERMAL CENTER.—The purpose of
5 one Technology Transfer Center shall be to serve as
6 an information clearinghouse for the geothermal in-
7 dustry, collecting and disseminating information on
8 best practices in all areas related to developing and
9 managing hydrothermal resources, including data
10 available for disclosure as provided under section
11 4208(b)(9). This Center shall be based at the insti-
12 tution west of the Rocky Mountains that the Sec-
13 retary considers to be best suited to the purpose.
14 The Center shall collect and disseminate information
15 on all subjects germane to the development and user
16 of hydrothermal systems, including—
17 (A) resource location;
18 (B) reservoir characterization, monitoring,
19 and modeling;
20 (C) drilling techniques;
21 (D) reservoir management techniques; and
22 (E) technologies for electric power conver-
23 sion or direct use of geothermal energy.
24 (2) ENHANCED GEOTHERMAL SYSTEMS CEN-
25 TER.—The purpose of a second Technology Transfer

Center shall be to serve as an information clearinghouse for the geothermal industry, collecting and disseminating information on best practices in all areas related to developing and managing enhanced geothermal systems resources, including data available for disclosure as provided under section 4208(b)(9). This Center is encouraged to seek opportunities to coordinate efforts and share information with international partners engaged in research and development of enhanced geothermal systems or engaged in collection of data related to enhanced geothermal systems development. This Center shall be based at an academic institution east of the Rocky Mountains which, in the opinion of the Secretary, is best suited to provide national leadership on enhanced geothermal systems-related issues. The Center shall collect and disseminate information on all subjects germane to the development and use of enhanced geothermal systems.

(c) AWARD DURATION.—An award made by the Secretary under this section shall be for an initial period of 5 years, and may be renewed for additional 5-year periods on the basis of—

(1) satisfactory performance in meeting the goals of the research plan proposed by the Center; and

(2) other requirements as specified by the Secretary.

SEC. 4210. GEOPOWERING AMERICA.

The Secretary shall expand the Department of Energy's GeoPowering the West program to extend its geothermal technology transfer activities throughout the entire United States. The program shall be renamed ''GeoPowering America''. The program shall continue to be based in the Department of Energy office in Golden, Colorado.

SEC. 4211. EDUCATIONAL PILOT PROGRAM.

The Secretary shall seek to award grant funding, on a competitive basis, to an institution of higher education for a geothermal-powered energy generation facility on the institution's campus. The purpose of the facility shall be to provide electricity and space heating. The facility shall also serve as an educational resource to students in relevant fields of study, and the data generated by the facility shall be available to students and the general public. The total funding award shall not exceed $2,000,000.

SEC. 4212. REPORTS.

(a) REPORTS ON ADVANCED USES OF GEOTHERMAL ENERGY.—Not later than 1 year, 3 years, and 5 years, after the date of enactment of this Act, the Secretary shall report to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate on advanced concepts and technologies to maximize the geothermal resource potential of the United States. The reports shall include—

(1) the use of carbon dioxide as an alternative geofluid with potential carbon sequestration benefits;

(2) mineral recovery from geofluids;

(3) use of geothermal energy to produce hydrogen;

(4) use of geothermal energy to produce biofuels;

(5) use of geothermal heat for oil recovery from oil shales and tar sands; and

(6) other advanced geothermal technologies, including advanced drilling technologies and advanced power conversion technologies.

(b) PROGRESS REPORTS.—(1) Not later than 36 months after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives and the Committee

on Energy and Natural Resources of the Senate an interim report describing the progress made under this subtitle. At the end of 60 months, the Secretary shall submit to Congress a report on the results of projects undertaken under this subtitle and other such information the Secretary considers appropriate.

(2) As necessary, the Secretary shall report to the Congress on any legal, regulatory, or other barriers encountered that hinder economic development of these resources, and provide recommendations on legislative or other actions needed to address such impediments.

SEC. 4213. APPLICABILITY OF OTHER LAWS.

Nothing in this subtitle shall be construed as waiving the applicability of any requirement under any environmental or other Federal or State law.

SEC. 4214. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this subtitle $90,000,000 for each of the fiscal years 2008 through 2012, of which $10,000,000 for each fiscal year shall be for carrying out section 4207. There are also authorized to be appropriated to the Secretary for the Intermountain West Geothermal Consortium $5,000,000 for each of the fiscal years 2008 through 2012.

Subtitle D—Solar Energy

PART 1—RESEARCH AND ADVANCEMENT

SEC. 4301. SHORT TITLE.

This subtitle may be cited as the ''Solar Energy Research and Advancement Act of 2007''.

SEC. 4302. DEFINITIONS.

For purposes of this part:

(1) The term ''Department'' means the Department of Energy.

(2) The term ''Secretary'' means the Secretary of Energy.

SEC. 4303. THERMAL ENERGY STORAGE RESEARCH AND DEVELOPMENT PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish a program of research and development to provide lower cost and more viable thermal energy storage technologies to enable the shifting of electric power loads on demand and extend the operating time of concentrating solar power electric generating plants.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this section $5,000,000 for fiscal year 2008, $7,000,000 for fiscal year 2009, $9,000,000 for fiscal year 2010, $10,000,000 for fiscal year 2011, and $12,000,000 for fiscal year 2012.

SEC. 4304. CONCENTRATING SOLAR POWER COMMERCIAL APPLICATION STUDIES.

(a) INTEGRATION.—The Secretary shall conduct a study on methods to integrate concentrating solar power into regional electricity transmission systems, and to identify new transmission or transmission upgrades needed to bring electricity from high concentrating solar power resource areas to growing electric power load centers throughout the United States. The study shall analyze and assess cost-effective approaches for management and large-scale integration of concentrating solar power into regional electric transmission grids to improve electric reliability, to efficiently manage load, and to reduce demand on the natural gas transmission system for electric power. The Secretary shall submit a report to Congress on the results of this study not later than 12 months after the date of enactment of this Act.

(b) WATER CONSUMPTION.—Not later than 6 months after the date of the enactment of this Act, the Secretary of Energy shall transmit to Congress a report on the results of a study on methods to reduce the amount of water consumed by concentrating solar power systems.

SEC. 4305. SOLAR ENERGY CURRICULUM DEVELOPMENT AND CERTIFICATION GRANTS.

(a) ESTABLISHMENT.—The Secretary shall establish in the Office of Solar Energy Technologies a competitive

grant program to create and strengthen solar industry workforce training and internship programs in installation, operation, and maintenance of solar energy products. The goal of this program is to ensure a supply of well-trained individuals to support the expansion of the solar energy industry.

(b) AUTHORIZED ACTIVITIES.—Grant funds may be used to support the following activities:

(1) Creation and development of a solar energy curriculum appropriate for the local educational, entrepreneurial, and environmental conditions, including curriculum for community colleges.

(2) Support of certification programs, such as the North American Board of Certified Energy Practitioners, for individual solar energy system installers, instructors, and training programs.

(3) Internship programs that provide hands-on participation by students in commercial applications.

(4) Activities required to obtain certification of training programs and facilities by the Institute of Sustainable Power or an equivalent industry-accepted quality-control certification program.

(5) Incorporation of solar-specific learning modules into traditional occupational training and internship programs for construction-related trades.

(6) The purchase of equipment necessary to carry out activities under this section.

(7) Support of programs that provide guidance and updates to solar energy curriculum instructors.

(c) ADMINISTRATION OF GRANTS.—Grants may be awarded under this section for up to 3 years. The Secretary shall award grants to ensure sufficient geographic distribution of training programs nationally. Grants shall only be awarded for programs certified by the Institute of Sustainable Power or an equivalent industry-accepted quality-control certification institution, or for new and growing programs with a credible path to certification. Due consideration shall be given to women, underrepresented minorities, and persons with disabilities.

(d) REPORT.—The Secretary shall make public, via the website of the Department or upon request, information on the name and institution for all grants awarded under this section, including a brief description of the project as well as the grant award amount.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this section $10,000,000 for each of the fiscal years 2008 through 2012.

SEC. 4306. DAYLIGHTING SYSTEMS AND DIRECT SOLAR LIGHT PIPE TECHNOLOGY.

(a) ESTABLISHMENT.—The Secretary shall establish a program of research and development to provide assistance in the demonstration and commercial application of direct solar renewable energy sources to provide alternatives to traditional power generation for lighting and illumination, including light pipe technology, and to promote greater energy conservation and improved efficiency. All direct solar renewable energy devices supported under this program shall have the capability to provide measurable data on the amount of kilowatt-hours saved over the traditionally powered light sources they have replaced.

(b) REPORTING.—The Secretary shall transmit to Congress an annual report assessing the measurable data derived from each project in the direct solar renewable energy sources program and the energy savings resulting from its use.

(c) DEFINITIONS.—For purposes of this section—

(1) the term ''direct solar renewable energy'' means energy from a device that converts sunlight into useable light within a building, tunnel, or other enclosed structure, replacing artificial light generated by a light fixture and doing so without the conversion of the sunlight into another form of energy; and

(2) the term ''light pipe'' means a device designed to transport visible solar radiation from its collection point to the interior of a building while excluding interior heat gain in the nonheating season.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this section $3,500,000 for each of the fiscal years 2008 through 2012.

SEC. 4307. SOLAR AIR CONDITIONING RESEARCH AND DEVELOPMENT PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish a research, development, and demonstration program to promote less costly and more reliable decentralized distributed solar-powered air conditioning for individuals and businesses.

(b) AUTHORIZED ACTIVITIES.—Grants made available under this section may be used to support the following activities:

(1) Advancing solar thermal collectors, including concentrating solar thermal and electric systems, flat plate and evacuated tube collector performance.

(2) Achieving technical and economic integration of solar-powered distributed air-conditioning systems with existing hot water and storage systems for residential applications.

(3) Designing and demonstrating mass manufacturing capability to reduce costs of modular standardized solar-powered distributed air conditioning systems and components.

(4) Improving the efficiency of solar-powered distributed air-conditioning to increase the effectiveness of solar-powered absorption chillers, solar-driven compressors and condensors, and cost-effective precooling approaches.

(5) Researching and comparing performance of solar-powered distributed air conditioning systems in different regions of the country, including potential integration with other onsite systems, such as solar, biogas, geothermal heat pumps, and propane assist or combined propane fuel cells, with a goal to develop site-specific energy production and management systems that ease fuel and peak utility loading.

(c) COST SHARING.—The non-Federal share of research and development projects supported under this section shall be not less than 20 percent, and for demonstration projects shall be not less than 50 percent.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this section $2,500,000 for each of the fiscal years 2008 through 2012.

SEC. 4308. PHOTOVOLTAIC DEMONSTRATION PROGRAM.

(a) IN GENERAL.—The Secretary shall establish a program of grants to States to demonstrate advanced photovoltaic technology.

(b) REQUIREMENTS.—

(1) ABILITY TO MEET REQUIREMENTS.—To receive funding under the program under this section, a State must submit a proposal that demonstrates, to the satisfaction of the Secretary, that the State will meet the requirements of subsection (f).

(2) COMPLIANCE WITH REQUIREMENTS.—If a State has received funding under this section for the preceding year, the State must demonstrate, to the satisfaction of the Secretary, that it complied with the requirements of subsection (f) in carrying out the program during that preceding year, and that it will do so in the future, before it can receive further funding under this section.

(3) FUNDING ALLOCATION.—Each State submitting a qualifying proposal shall receive funding under the program based on the proportion of United States population in the State according to the 2000 census. In each fiscal year, the portion of funds attributable under this paragraph to States that have not submitted qualifying proposals in the time and manner specified by the Secretary shall be

distributed pro rata to the States that have submitted qualifying proposals in the specified time and manner.

(c) COMPETITION.—If more than $25,000,000 is available for the program under this section for any fiscal year, the Secretary shall allocate 75 percent of the total amount of funds available according to subsection (b)(3), and shall award the remaining 25 percent on a competitive basis to the States with the proposals the Secretary considers most likely to encourage the widespread adoption of photovoltaic technologies.

(d) PROPOSALS.—Not later than 6 months after the date of enactment of this Act, and in each subsequent fiscal year for the life of the program, the Secretary shall solicit proposals from the States to participate in the program under this section.

(e) COMPETITIVE CRITERIA.—In awarding funds in a competitive allocation under subsection (c), the Secretary shall consider—

(1) the likelihood of a proposal to encourage the demonstration of, or lower the costs of, advanced photovoltaic technologies; and

(2) the extent to which a proposal is likely to—

(A) maximize the amount of photovoltaics demonstrated;

(B) maximize the proportion of non-Federal cost share; and

(C) limit State administrative costs.

(f) STATE PROGRAM.—A program operated by a State with funding under this section shall provide competitive awards for the demonstration of advanced photovoltaic technologies. Each State program shall—

(1) require a contribution of at least 60 percent per award from non-Federal sources, which may include any combination of State, local, and private funds, except that at least 10 percent of the funding must be supplied by the State;

(2) endeavor to fund recipients in the commercial, industrial, institutional, governmental, and residential sectors;

(3) limit State administrative costs to no more than 10 percent of the grant;

(4) report annually to the Secretary on—

(A) the amount of funds disbursed;

(B) the amount of photovoltaics purchased; and

(C) the results of the monitoring under paragraph (5);

(5) provide for measurement and verification of the output of a representative sample of the

photovoltaics systems demonstrated throughout the average working life of the systems, or at least 20 years; and

(6) require that applicant buildings must have received an independent energy efficiency audit during the 6-month period preceding the filing of the application.

(g) UNEXPENDED FUNDS.—If a State fails to expend any funds received under subsection (b) or (c) within 3 years of receipt, such remaining funds shall be returned to the Treasury.

(h) REPORTS.—The Secretary shall report to Congress 5 years after funds are first distributed to the States under this section—

(1) the amount of photovoltaics demonstrated;

(2) the number of projects undertaken;

(3) the administrative costs of the program;

(4) the amount of funds that each State has not received because of a failure to submit a qualifying proposal, as described in subsection (b)(3);

(5) the results of the monitoring under subsection (f)(5); and

(6) the total amount of funds distributed, including a breakdown by State.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for the purposes of carrying out this section—

(1) $15,000,000 for fiscal year 2008;

(2) $30,000,000 for fiscal year 2009;

(3) $45,000,000 for fiscal year 2010;

(4) $60,000,000 for fiscal year 2011; and

(5) $70,000,000 for fiscal year 2012.

PART 2—DEVELOPMENT AND USE OF SOLAR ENERGY PRODUCTS

SEC. 4311. DEFINITIONS.

For purposes of this part:

(1) The term ''Board'' means the Solar Energy Industries Research and Promotion Board established under section 4312(b)(1).

(2) The term ''Committee'' means the Solar Energy Research and Promotion Operating Committee established under section 4312(b)(4).

(3) The term ''Department'' means the Department of Energy.

(4) The term ''importer'' means any person who imports solar energy products from outside the United States.

(5) The term ''order'' means a solar energy product research and promotion order issued under section 4312.

(6) The term ''promotion'' means any action to advance the image and desirability of solar energy products with the express intent of improving the competitive position and stimulating sales of solar energy products in the marketplace.

(7) The term ''Secretary'' means the Secretary of Energy.

(8) The term ''solar energy products'' means solar water heating components and systems and photovoltaic components and systems.

SEC. 4312. SOLAR RESEARCH AND INFORMATION PROGRAM.

(a) ISSUANCE OF ORDERS.—

(1) PROPOSED ORDER.—Not later than 30 days after receipt of a proposal for a solar energy product research and promotion order, the Secretary shall publish such proposed order and give due notice and opportunity for public comment on such proposed order. Such proposal may be submitted by any organization meeting the requirements for certification under section 4313 or any interested person, including the Secretary.

(2) FINAL ORDER.—After notice and opportunity for public comment are given, as provided for in paragraph (1), the Secretary shall issue a solar energy product research and promotion order. The order shall become effective not later than 120 days after publication of the proposed order.

(b) REQUIRED TERMS IN ORDERS.—An order issued under subsection (a) shall contain the following terms and conditions:

(1) The order shall provide for the establishment and selection of a Solar Energy Industries Research and Promotion Board. In addition to nonpermanent members of the Board, there shall be two permanent members of the Board, a representative chosen by the Secretary and a representative chosen by one of the organizations certified under section 4313. Nonpermanent members of the Board shall be solar energy products producers and importers appointed by the Secretary from—

(A) nominations submitted by eligible organizations certified under section 4313; and

(B) nominations submitted by importers under such procedures as the Secretary determines appropriate.

The Secretary shall ensure adequate representation of all geographic regions of the United States on the Board.

(2) The order shall define the powers and duties of the Board, which shall be exercised at an annual meeting, and shall include only the following powers:

(A) To administer the order in accordance with its terms and provisions.

(B) To make rules and regulations to effectuate the terms and provisions of the order.

(C) To elect members of the Board to serve on the Committee.

(D) To approve or disapprove budgets submitted by the Committee.

(E) To receive, investigate, and report to the Secretary complaints of violations of the order.

(F) To recommend to the Secretary amendments to the order. In addition, the order shall determine the circumstances under which special meetings of the Board may be held.

(3) The order shall provide that the term of appointment for nonpermanent members of the Board shall be 3 years with no nonpermanent member serv-

ing more than 2 consecutive terms, except that initial appointments shall be proportionately for 1-year, 2-year, and 3-year terms; and that Board members shall serve without compensation, but shall be reimbursed for their reasonable expenses incurred in performing their duties as members of the Board.

(4)(A) The order shall provide that the Board shall elect from its membership 10 members to serve on the Solar Energy Research and Promotion Operating Committee.

(B) The Committee shall develop plans or projects of research, information, and promotion which shall be paid for with assessments collected by the Board. In developing plans or projects, the Committee shall, to the extent practicable, ensure that all segments of the solar industry receive fair treatment under this part based upon contributions made under paragraph (8).

(C) The Committee shall be responsible for developing and submitting to the Board, for its approval, budgets on a fiscal year basis of its anticipated expenses and disbursements, including probable costs of research, promotion, and information projects. The Board shall approve or disapprove

1 such budgets and, if approved, shall submit such
2 budget to the Secretary for the Secretary's approval.
3 (D) The total costs of collection of assessments
4 and administrative staff incurred by the Board dur-
5 ing any fiscal year shall not exceed 5 percent of the
6 projected total assessments to be collected by the
7 Board for such fiscal year. The Board shall use, to
8 the extent possible, the resources, staffs, and facili-
9 ties of existing organizations.
10 (5) The order shall provide that terms of ap-
11 pointment to the Committee shall be 1 year, and
12 that no person may serve on the Committee for
13 more than 6 consecutive terms. Committee members
14 shall serve without compensation, but shall be reim-
15 bursed for their reasonable expenses incurred in per-
16 forming their duties as members of the Committee.
17 The Committee may utilize the resources, staffs, and
18 facilities of the Board and industry organizations.
19 An employee of an industry organization may not re-
20 ceive compensation for work performed for the Com-
21 mittee, but shall be reimbursed from assessments
22 collected by the Board for reasonable expenses in-
23 curred in performing such work.
24 (6) The order shall provide that, to ensure co-
25 ordination and efficient use of funds, the Committee

shall enter into contracts or agreements for implementing and carrying out the activities authorized by this part with established national nonprofit industry-governed organizations to implement programs of research, promotion, and information. In any fiscal year, the total assessments available for spending for this program (including administrative expenses under paragraph (4)(D)) shall not exceed 50 percent of the projected total assessments for that year. Any such contract or agreement shall provide that—

(A) the person entering the contract or agreement shall develop and submit to the Committee a plan or project together with a budget or budgets that shows estimated costs to be incurred for the plan or project;

(B) the plan or project shall become effective on the approval of the Secretary; and

(C) the person entering the contract or agreement shall keep accurate records of all of its transactions, account for funds received and expended, and make periodic reports to the Committee of activities conducted, and such other reports as the Secretary, the Board, or the Committee may require.

(7) The order shall require the Board and the Committee to—

(A) maintain such books and records, which shall be available to the Secretary for inspection and audit, as the Secretary may prescribe;

(B) prepare and submit to the Secretary, from time to time, such reports as the Secretary may prescribe; and

(C) account for the receipt and disbursement of all funds entrusted to them.

(8)(A) The order shall provide that each manufacturer of a solar energy product shall collect an assessment and pay the assessment to the Board.

(B) The order also shall provide that each importer of solar energy products shall pay an assessment, in the manner prescribed by the order, to the Board.

(C) The assessments shall be used for payment of the costs of plans and projects, as provided for in paragraph (4), and expenses in administering the order, including more administrative costs incurred by the Secretary after the order has been promulgated under this part, and to establish a reasonable reserve. The rate of assessment prescribed by the

order shall be determined by the Secretary in consultation with the Solar Energy Industry Association.

(9) The order shall provide that the Board, with the approval of the Secretary, may invest, pending disbursement, funds collected through assessments only in obligations of the United States or any agency thereof, in any interest-bearing account or certificate of deposit of a bank that is a member of the Federal Reserve System, or in obligations fully guaranteed as to principal and interest by the United States.

(10) The order shall prohibit any funds collected by the Board under the order from being used in any manner for the purpose of influencing governmental action or policy, with the exception of recommending amendments to the order.

(11)(A) The order shall require that each manufacturer or importer making payment to the Board maintain and make available for inspection such books and records as may be required by the order and file reports at the time, in the manner, and having the content prescribed by the order. Such information shall be made available to the Secretary as is appropriate to the administration or enforcement

of this part. All information so obtained shall be kept confidential by all officers and employees of the Department, and only such information so obtained as the Secretary deems relevant may be disclosed by them and then only in a suit or administrative hearing brought at the request of the Secretary, or to which the Secretary or any officer of the United States is a party, and involving the order. Nothing in this paragraph may be deemed to prohibit—

(i) the issuance of general statements, based on the reports, of the number of entities subject to the order or statistical data collected therefrom, which statements do not identify the information furnished by an person; or

(ii) the publication, by direction of the Secretary, of the name of any person violating the order, together with a statement of the particular provisions of the order violated by the person.

(B) No information obtained under the authority of this part may be made available to any agency or officer of the United States for any purpose other than the implementation of this part and any investigatory or enforcement act necessary for the implementation of this part. Any person violating the pro-

visions of this paragraph shall be subject to a fine of not more than $1,000, or to imprisonment for not more than one year, or both, and if an officer or employee of the Board or the Department, shall be removed from office.

(12) The order shall contain terms and conditions, not inconsistent with the provisions of this part, as necessary to effectuate the provisions of the order.

SEC. 4313. CERTIFICATION OF ORGANIZATIONS TO NOMINATE.

(a) ELIGIBILITY.—The eligibility of any national, regional, or State organization to represent manufacturers and to participate in the making of nominations under section 4312(b) shall be certified by the Secretary. The Secretary shall certify any organization that the Secretary determines meets the eligibility criteria established under subsection (b), and such determination as to eligibility shall be final.

(b) CRITERIA.—An organization may be certified as described in subsection (a) if such organization meets all of the following eligibility criteria:

(1) The organization represents a majority of manufacturers of solar energy products in the Nation.

(2) The organization has a history of stability and permanency.

(3) A primary purpose of the organization is to promote the economic welfare of the solar energy products industry.

(c) BASIS FOR CERTIFICATION.—Certification of an organization shall be based upon a factual report submitted by the organization.

SEC. 4314. REFERENDUM.

(a) INITIAL REFERENDUM.—For the purpose of determining whether the initial order shall be continued, not later than 48 months after the issuance of the order (or any earlier date recommended by the Board), the Secretary shall conduct a referendum among persons who have been manufacturers or importers of solar energy products during a representative period, as determined by the Secretary. The order shall be continued only if the Secretary determines that it has been approved by not less than a majority of the manufacturers voting in the referendum who, during a representative period as determined by the Secretary, have been engaged in the manufacturing of solar energy products. If continuation of the order is not approved by a majority voting in the referendum, the Secretary shall terminate the collection of assessments under the order within 6 months after the

Secretary determines that continuation of the order is not favored by a majority voting in the referendum, and shall terminate the order in an orderly manner as soon as practicable after such determination.

(b) SUBSEQUENT REFERENDA.—After the initial referendum, the Secretary may conduct a referendum on the request of a representative group comprising 25 percent or more of the number of manufacturers of solar energy products to determine whether manufacturers favor the termination or suspension of the order. The Secretary shall suspend or terminate collection of assessments under the order within 6 months after the Secretary determines that suspension or termination of the order is favored by a majority of the manufacturers voting in the referendum who, during a representative period as determined by the Secretary, have been engaged in the manufacture of solar energy products, and shall terminate or suspend the order in an orderly manner as soon as practicable after such determination.

(c) PROCEDURES.—The Department shall be reimbursed from assessments collected by the Board for any expenses incurred by the Department in connection with conducting any referendum under this section, except for the salaries of Government employees. Any referendum conducted under this section shall be conducted on a date

established by the Secretary, whereby manufacturers shall certify that they were engaged in the production of solar energy products during the representative period and, on the same day, shall be provided an opportunity to vote in the referendum.

SEC. 4315. REFUNDS.

(a) IN GENERAL.—During the period prior to the approval of the continuation of an order pursuant to the referendum required under section 4314(a), subject to subsection (f) of this section, the Board shall—

(1) establish an escrow account to be used for assessment refunds;

(2) place funds in such account in accordance with subsection (b); and

(3) refund assessments to persons in accordance with this section.

(b) AMOUNTS PLACED IN ACCOUNT.—Subject to subsection (f), the Board shall place in such account, from assessments collected under section 4312 during the period referred to in subsection (a), an amount equal to the product obtained by multiplying the total amount of assessments collected under section 4312 during such period by 15 percent.

(c) FULL REFUND ELECTION.—Subject to subsections (d), (e), and (f) and notwithstanding any other

provision of this part, any manufacturer or importer shall have the right to demand and receive from the Board a one-time refund of all assessments collected under section 4312 from such manufacturer or importer during the period referred to in subsection (a) if such manufacturer or importer—

(1) is responsible for paying such assessment; and

(2) does not support the program established under this part.

(d) PROCEDURE.—Such demand shall be made in accordance with regulations, on a form, and within a time period prescribed by the Board.

(e) PROOF.—Such refund shall be made on submission of proof satisfactory to the Board that the manufacturer or importer—

(1) paid the assessment for which refund is sought; and

(2) did not collect such assessment from another manufacturer or importer.

(f) DISTRIBUTION.—If the amount in the escrow account required to be established by subsection (a) is not sufficient to refund the total amount of assessments demanded by all eligible persons under this section, and the continuation of an order is approved pursuant to the ref-

erendum required under section 4314(b), the Board shall—

(1) continue to place in such account, from assessments collected under section 4312, the amount required under subsection (b), until such time as the Board is able to comply with paragraph (2); and

(2) provide to all eligible persons the total amount of assessments demanded by all eligible persons under this section.

If the continuation of an order is not approved pursuant to the referendum required under section 4314(b), the Board shall prorate the amount of such refunds among all eligible persons who demand such refund.

SEC. 4316. ENFORCEMENT.

(a) IN GENERAL.—If the Secretary believes that the administration and enforcement of this part or an order would be adequately served by such procedure, following an opportunity for an administrative hearing on the record, the Secretary may—

(1) issue an order to restrain or prevent a person from violating an order; and

(2) assess a civil penalty of not more than $25,000 for violation of such order.

(b) JURISDICTION.—The district courts of the United States are vested with jurisdiction specifically to enforce,

and to prevent and restrain a person from violating, an order or regulation made or issued under this part.

(c) ATTORNEY GENERAL.—A civil action authorized to be brought under this section shall be referred to the Attorney General for appropriate action.

SEC. 4317. INVESTIGATIONS.

The Secretary may make such investigations as the Secretary deems necessary for the effective administration of this part or to determine whether any person subject to this part has engaged or is about to engage in any act that constitutes or will constitute a violation of this part, the order, or any rule or regulation issued under this part.

SEC. 4318. ADMINISTRATIVE PROVISION.

The provisions of this part applicable to the order shall be applicable to amendments to the order.

Subtitle E—Biofuels

SEC. 4401. SHORT TITLE.

This subtitle may be cited as the ''Biofuels Research and Development Enhancement Act''.

SEC. 4402. BIOFUELS AND BIOREFINERY INFORMATION CENTER.

(a) IN GENERAL.—The Secretary of Energy (in this subtitle referred to as the ''Secretary''), in cooperation with the Secretary of Agriculture, shall establish a technology transfer center to make available information on

research, development, and commercial application of technologies related to biofuels and biorefineries, including—

(1) biochemical and thermochemical conversion technologies capable of making fuels from lignocellulosic feedstocks;

(2) biotechnology processes capable of making biofuels with an emphasis on development of biorefinery technologies using enzyme-based processing systems;

(3) biogas collection and production technologies suitable for vehicular use;

(4) cost-effective reforming technologies that produce hydrogen fuel from biogas sources;

(5) biogas production from cellulosic and recycled organic waste sources and advancement of gaseous storage systems and advancement of gaseous storage systems; and

(6) other advanced processes and technologies that will enable the development of biofuels.

(b) ADMINISTRATION.—In administering this section, the Secretary shall ensure that the center shall—

(1) continually update information provided by the center;

(2) make information available on biotechnology processes; and

(3) make information and assistance provided by the center available for those involved in energy research, development, demonstration, and commercial application.

SEC. 4403. BIOFUELS AND ADVANCED BIOFUELS INFRASTRUCTURE.

Section 932 of the Energy Policy Act of 2005 (42 U.S.C. 16232) is amended by adding at the end the following new subsection:

''(f) BIOFUELS AND ADVANCED BIOFUELS INFRASTRUCTURE.—The Secretary, in consultation with the Secretary of Transportation and the Assistant Administrator for Research and Development of the Environmental Protection Agency, shall carry out a program of research, development, and demonstration as it relates to existing transportation fuel distribution infrastructure and new alternative distribution infrastructure. The program shall focus on the physical and chemical properties of biofuels and efforts to prevent or mitigate against adverse impacts of those properties in the following areas:

''(1) Corrosion of metal, plastic, rubber, cork, fiberglass, glues, or any other material used in pipes and storage tanks.

"(2) Dissolving of storage tank sediments.

"(3) Clogging of filters.

"(4) Contamination from water or other adulterants or pollutants.

"(5) Poor flow properties related to low temperatures.

"(6) Oxidative and thermal instability in long-term storage and use.

"(7) Microbial contamination.

"(8) Problems associated with electrical conductivity.

"(9) Such other areas as the Secretary considers appropriate.".

SEC. 4404. BIODIESEL.

(a) BIODIESEL STUDY.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a report on any research and development challenges inherent in increasing to 2.5 percent the proportion of diesel fuel sold in the United States that is biodiesel (within the meaning of section 211(o) of the Clean Air Act).

(b) MATERIALS FOR THE ESTABLISHMENT OF STANDARDS.—The Director of the National Institute of Standards and Technology shall make publicly available the physical property data and characterization of bio-

diesel, as is defined in subsection (a), in order to encourage the establishment of standards that will promote their utilization in the transportation and fuel delivery system.

SEC. 4405. BIOGAS.

Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a report on any research and development challenges inherent in increasing to 5 percent of the transportation fuels sold in the United States fuel with biogas or a blend of biogas and natural gas.

SEC. 4406. BIORESEARCH CENTERS FOR SYSTEMS BIOLOGY PROGRAM.

Section 977(a)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16317(a)(1)) is amended by inserting before the period at the end the following: ", including the establishment of at least 5 bioresearch centers of varying sizes, as appropriate, that focus on biofuels, of which at least 1 center shall be located in each of the 5 Petroleum Administration for Defense Districts, which shall be established for a period of 5 years, after which the grantee may reapply for selection on a competitive basis".

SEC. 4407. GRANTS FOR BIOFUEL PRODUCTION RESEARCH AND DEVELOPMENT IN CERTAIN STATES.

(a) IN GENERAL.—The Secretary shall provide grants to eligible entities for research, development, dem-

onstration, and commercial application of biofuel production technologies in States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol, as determined by the Secretary.

(b) ELIGIBILITY.—To be eligible to receive a grant under this section, an entity shall—

(1)(A) be an institution of higher education (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)) located in a State described in subsection (a); or

(B) be a consortium including at least 1 such institution of higher education, and industry, State agencies, Indian tribal agencies, National Laboratories, or local government agencies located in the State; and

(2) have proven experience and capabilities with relevant technologies.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $25,000,000 for each of fiscal years 2008 through 2010.

SEC. 4408. BIOREFINERY ENERGY EFFICIENCY.

Section 932 of Energy Policy Act of 2005 (42 U.S.C. 16232), is amended by adding at the end the following new subsections:

"(g) BIOREFINERY ENERGY EFFICIENCY.—The Secretary shall establish a program of research, development, demonstration, and commercial application for increasing energy efficiency and reducing energy consumption in the operation of biorefinery facilities.

"(h) RETROFIT TECHNOLOGIES FOR THE DEVELOPMENT OF ETHANOL FROM CELLULOSIC MATERIALS.—The Secretary shall establish a program of research, development, demonstration, and commercial application on technologies and processes to enable biorefineries that exclusively use corn grain or corn starch as a feedstock to produce ethanol to be retrofitted to accept a range of biomass, including lignocellulosic feedstocks.".

SEC. 4409. STUDY OF INCREASED CONSUMPTION OF ETHANOL-BLENDED GASOLINE WITH HIGHER LEVELS OF ETHANOL.

(a) IN GENERAL.—The Secretary, in cooperation with the Secretary of Agriculture, the Administrator of the Environmental Protection Agency, and the Secretary of Transportation, shall conduct a study of the methods of increasing consumption in the United States of ethanol-blended gasoline with levels of ethanol that are not less than 10 percent and not more than 40 percent.

(b) STUDY.—The study under subsection (a) shall include—

(1) a review of production and infrastructure constraints on increasing consumption of ethanol;

(2) an evaluation of the environmental consequences of the ethanol blends described in subsection (a) on evaporative and exhaust emissions from on-road, off-road, and marine vehicle engines;

(3) an evaluation of the consequences of the ethanol blends described in subsection (a) on the operation, durability, and performance of on-road, off-road, and marine vehicle engines; and

(4) an evaluation of the life cycle impact of the use of the ethanol blends described in subsection (a) on carbon dioxide and greenhouse gas emissions.

(c) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the results of the study conducted under this section.

SEC. 4410. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED VEHICLES TO USE E–85 FUEL.

(a) IN GENERAL.—The Secretary, in consultation with the Secretary of Transportation, shall conduct a study of whether optimizing flexible fueled vehicles to operate using E–85 fuel would increase the fuel efficiency of flexible fueled vehicles.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives the Committee on Energy and Natural Resources of the Senate a report that describes the results of the study under this section, including any recommendations of the Secretary.

SEC. 4411. STUDY OF ENGINE DURABILITY AND PERFORMANCE ASSOCIATED WITH THE USE OF BIODIESEL.

(a) IN GENERAL.—Not later than 30 days after the date of enactment of this Act, the Secretary shall initiate a study on the effects of the use of biodiesel on the performance and durability of engines and engine systems.

(b) COMPONENTS.—The study under this section shall include—

(1) an assessment of whether the use of biodiesel lessens the durability and performance of conventional diesel engines and engine systems; and

(2) an assessment of the effects referred to in subsection (a) with respect to biodiesel blends at varying concentrations, including the following percentage concentrations of biodiesel:

(A) 5 percent biodiesel.

(B) 10 percent biodiesel.

(C) 20 percent biodiesel.

(D) 30 percent biodiesel.

(E) 100 percent biodiesel.

(c) REPORT.—Not later than 24 months after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives the Committee on Energy and Natural Resources of the Senate a report that describes the results of the study under this section, including any recommendations of the Secretary.

SEC. 4412. BIOENERGY RESEARCH AND DEVELOPMENT, AUTHORIZATION OF APPROPRIATION.

(a) Section 931 of the Energy Policy Act of 2005 (42 U.S.C. 16231) is amended—

(1) in subsection (b)—

(A) at the end of paragraph (2) by striking ''and'';

(B) at the end of paragraph (3) by striking the period and inserting ''; and''; and

(C) by adding at the end the following new paragraph:

''(4) $963,000,000 for fiscal year 2010.''; and

(2) in subsection (c)—

(A) in paragraph (2), by striking ''$251,000,000'' and inserting ''$377,000,000'';

(B) in paragraph (3), by striking "$274,000,000" and inserting "$398,000,000"; and

(C) by adding at the end the following new paragraph:

"(4) $419,000,000 for fiscal year 2010, of which $150,000,00 shall be for section 932(d).".

SEC. 4413. ENVIRONMENTAL RESEARCH AND DEVELOPMENT.

(a) AMENDMENTS.—Section 977 of the Energy Policy Act of 2005 (42 U.S.C. 16317) is amended—

(1) in subsection (a)(1), by striking "and computational biology" and inserting "computational biology, and environmental science"; and

(2) in subsection (b)—

(A) in paragraph (1), by inserting "in sustainable production systems that reduce greenhouse gas emissions" after "hydrogen";

(B) at the end of paragraph (3), by striking "and";

(C) by redesignating paragraph (4) as paragraph (5); and

(D) by inserting after paragraph (3) the following new paragraph:

"(4) develop cellulosic and other feedstocks that are less resource and land intensive and that promote sustainable use of resources, including soil, water, energy, forests, and land, and ensure protection of air, water, and soil quality; and".

(b) TOOLS AND EVALUATION.—The Secretary, in consultation with the Administrator of the Environmental Protection Agency and the Secretary of Agriculture, shall establish a research and development program to—

(1) improve and develop analytical tools to facilitate the analysis of life-cycle energy and greenhouse gas emissions, including emissions related to direct and indirect land use changes, attributable to all potential biofuel feedstocks and production processes; and

(2) promote the systematic evaluation of the impact of expanded biofuel production on the environment, including forestlands, and on the food supply for humans and animals.

(c) SMALL-SCALE PRODUCTION AND USE OF BIOFUELS.—The Secretary, in cooperation with the Secretary of Agriculture, shall establish a research and development program to facilitate small-scale production, local, and on-farm use of biofuels, including the development of

small-scale gasification technologies for production of biofuel from cellulosic feedstocks.

SEC. 4414. STUDY OF OPTIMIZATION OF BIOGAS USED IN NATURAL GAS VEHICLES.

(a) IN GENERAL.—The Secretary of Energy shall conduct a study of methods of increasing the fuel efficiency of vehicles using biogas by optimizing natural gas vehicle systems that can operate on biogas, including the advancement of vehicle fuel systems and the combination of hybrid-electric and plug-in hybrid electric drive platforms with natural gas vehicle systems using biogas.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science and Technology of the House of Representatives a report that describes the results of the study, including any recommendations of the Secretary.

SEC. 4415. STANDARDS FOR BIOFUELS DISPENSERS.

In the absence of appropriate private sector standards adopted prior to the date of enactment of this Act, and consistent with the National Technology Transfer and Advancement Act of 1995, the Secretary of Energy, in consultation with the Director of the National Institute of Standards and Technology, shall develop standards for

biofuel dispenser systems in order to promote broader biofuels adoption and utilization.

SEC. 4416. ALGAL BIOMASS.

Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the progress of the research and development that is being conducted on the use of algae as a feedstock for the production of biofuels. The report shall identify continuing research and development challenges and any regulatory or other barriers found by the Secretary that hinder the use of this resource, as well as recommendations on how to encourage and further its development as a viable transportation fuel.

SEC. 4417. UNIVERSITY BASED RESEARCH AND DEVELOPMENT GRANT PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish a competitive grant program, in a geographically diverse manner, for projects submitted for consideration by institutions of higher education to conduct research and development of renewable energy technologies. Each grant made shall not exceed $2,000,000.

(b) ELIGIBILITY.—Priority shall be given to institutions of higher education with—

(1) established programs of research in renewable energy;

(2) locations that are low income or outside of an urbanized area;

(3) a joint venture with an Indian tribe; and

(4) proximity to trees dying of disease or insect infestation as a source of woody biomass.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $25,000,000 for carrying out this section.

(d) DEFINITIONS.—In this section:

(1) INDIAN TRIBE.—The term ''Indian tribe'' has the meaning as defined in section 126(c) of the Energy Policy Act of 2005.

(2) INSTITUTIONS OF HIGHER EDUCATION.—The term ''institutions of higher education'' has the meaning as defined in section 102(a) of the Higher Education Act of 1965.

(3) RENEWABLE ENERGY.—The term ''renewable energy'' has the meaning as defined in section 902 of the Energy Policy Act of 2005.

(4) URBANIZED AREA.—The term ''urbanized area'' has the mean as defined by the U.S. Bureau of the Census.

Subtitle F—Carbon Capture and Storage

SEC. 4501. SHORT TITLE.

This subtitle may be cited as the ''Department of Energy Carbon Capture and Storage Research, Development, and Demonstration Act of 2007''.

SEC. 4502. CARBON CAPTURE AND STORAGE RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.

(a) AMENDMENTS.—Section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293) is amended—

(1) in the section heading, by striking ''**RESEARCH AND DEVELOPMENT**'' and inserting ''**AND STORAGE RESEARCH, DEVELOPMENT, AND DEMONSTRATION**'';

(2) in subsection (a)—

(A) by striking ''research and development'' and inserting ''and storage research, development, and demonstration''; and

(B) by striking ''capture technologies on combustion-based systems'' and inserting ''cap-

ture and storage technologies related to electric power generating systems''; (3) in subsection (b)—

(A) in paragraph (3), by striking ''and'' at the end;

(B) in paragraph (4), by striking the period at the end and inserting ''; and''; and

(C) by adding at the end the following:

''(5) to expedite and carry out large-scale testing of carbon sequestration systems in a range of geological formations that will provide information on the cost and feasibility of deployment of sequestration technologies.''; and

(4) by striking subsection (c) and inserting the following:

''(c) PROGRAMMATIC ACTIVITIES.—

''(1) FUNDAMENTAL SCIENCE AND ENGINEERING RESEARCH AND DEVELOPMENT AND DEMONSTRATION SUPPORTING CARBON CAPTURE AND STORAGE TECHNOLOGIES.—

''(A) IN GENERAL.—The Secretary shall carry out fundamental science and engineering research (including laboratory-scale experiments, numeric modeling, and simulations) to develop and document the performance of new

1 approaches to capture and store carbon dioxide,
2 or to learn how to use carbon dioxide in prod-
3 ucts to lead to an overall reduction of carbon
4 dioxide emissions.

5 ''(B) PROGRAM INTEGRATION.—The Sec-
6 retary shall ensure that fundamental research
7 carried out under this paragraph is appro-
8 priately applied to energy technology develop-
9 ment activities and the field testing of carbon
10 sequestration and carbon use activities, includ-
11 ing—

12 ''(i) development of new or advanced
13 technologies for the capture of carbon diox-
14 ide;

15 ''(ii) development of new or advanced
16 technologies that reduce the cost and in-
17 crease the efficacy of the compression of
18 carbon dioxide required for the storage of
19 carbon dioxide;

20 ''(iii) modeling and simulation of geo-
21 logical sequestration field demonstrations;

22 ''(iv) quantitative assessment of risks
23 relating to specific field sites for testing of
24 sequestration technologies; and

"(v) research and development of new and advanced technologies for carbon use, including recycling and reuse of carbon dioxide.

"(2) FIELD VALIDATION TESTING ACTIVITIES.—

"(A) IN GENERAL.—The Secretary shall promote, to the maximum extent practicable, regional carbon sequestration partnerships to conduct geologic sequestration tests involving carbon dioxide injection and monitoring, mitigation, and verification operations in a variety of candidate geological settings, including—

"(i) operating oil and gas fields;

"(ii) depleted oil and gas fields;

"(iii) unmineable coal seams;

"(iv) deep saline formations;

"(v) deep geologic systems that may be used as engineered reservoirs to extract economical quantities of heat from geothermal resources of low permeability or porosity;

"(vi) deep geologic systems containing basalt formations; and

"(vii) high altitude terrain oil and gas fields.

"(B) OBJECTIVES.—The objectives of tests conducted under this paragraph shall be—

"(i) to develop and validate geophysical tools, analysis, and modeling to monitor, predict, and verify carbon dioxide containment;

"(ii) to validate modeling of geological formations;

"(iii) to refine storage capacity estimated for particular geological formations;

"(iv) to determine the fate of carbon dioxide concurrent with and following injection into geological formations;

"(v) to develop and implement best practices for operations relating to, and monitoring of, injection and storage of carbon dioxide in geologic formations;

"(vi) to assess and ensure the safety of operations related to geological storage of carbon dioxide;

"(vii) to allow the Secretary to promulgate policies, procedures, requirements, and guidance to ensure that the objectives

of this subparagraph are met in large-scale testing and deployment activities for carbon capture and storage that are funded by the Department of Energy; and

"(viii) to support Environmental Protection Agency efforts, in consultation with other agencies, to develop a scientifically sound regulatory framework to enable commercial-scale sequestration operations while safeguarding human health and underground sources of drinking water.

"(3) LARGE-SCALE CARBON DIOXIDE SEQUESTRATION TESTING.—

"(A) IN GENERAL.—The Secretary shall conduct not less than 7 initial large-volume sequestration tests, not including the FutureGen project, for geological containment of carbon dioxide (at least 1 of which shall be international in scope) to validate information on the cost and feasibility of commercial deployment of technologies for geological containment of carbon dioxide.

"(B) DIVERSITY OF FORMATIONS TO BE STUDIED.—In selecting formations for study under this paragraph, the Secretary shall con-

sider a variety of geological formations across the United States, and require characterization and modeling of candidate formations, as determined by the Secretary.

"(C) SOURCE OF CARBON DIOXIDE FOR LARGE-SCALE SEQUESTRATION DEMONSTRATIONS.—In the process of any acquisition of carbon dioxide for sequestration demonstrations under subparagraph (A), the Secretary shall give preference to purchases of carbon dioxide from industrial and coal-fired electric generation facilities. To the extent feasible, the Secretary shall prefer test projects from industrial and coal-fired electric generation facilities that would facilitate the creation of an integrated system of capture, transportation and storage of carbon dioxide. Until coal-fired electric generation facilities, either new or existing, are operating with carbon dioxide capture technologies, other industrial sources of carbon dioxide should be pursued under this paragraph. The preference provided for under this subparagraph shall not delay the implementation of the large-scale sequestration tests under this paragraph.

"(D) DEFINITION.—For purposes of this paragraph, the term 'large-scale' means the injection of more than 1,000,000 metric tons of carbon dioxide annually, or a scale that demonstrably exceeds the necessary thresholds in key geologic transients to validate the ability continuously to inject quantities on the order of several million metric tons of industrial carbon dioxide annually for a large number of years.

"(4) LARGE-SCALE DEMONSTRATION OF CARBON DIOXIDE CAPTURE TECHNOLOGIES.—

"(A) IN GENERAL.—The Secretary shall carry out at least 3 and no more than 5 demonstrations, that include each of the technologies described in subparagraph (B), for the large-scale capture of carbon dioxide from industrial sources of carbon dioxide, at least 2 of which are facilities that generate electric energy from fossil fuels. Candidate facilities for other demonstrations under this paragraph shall include facilities that refine petroleum, manufacture iron or steel, manufacture cement or cement clinker, manufacture commodity chemicals, and ethanol and fertilizer plants. Consideration may be given to capture of carbon dioxide

from industrial facilities and electric generation carbon sources that are near suitable geological reservoirs and could continue sequestration. To ensure reduced carbon dioxide emissions, the Secretary shall take necessary actions to provide for the integration of the program under this paragraph with the long-term carbon dioxide sequestration demonstrations described in paragraph (3). These actions should not delay implementation of the large-scale sequestration tests authorized in paragraph (3).

"(B) TECHNOLOGIES.—The technologies referred to in subparagraph (A) are precombustion capture, post-combustion capture, and oxycombustion.

"(C) SCOPE OF AWARD.—An award under this paragraph shall be only for the portion of the project that carries out the large-scale capture (including purification and compression) of carbon dioxide, as well as the cost of transportation and injection of carbon dioxide.

"(5) PREFERENCE IN PROJECT SELECTION FROM MERITORIOUS PROPOSALS.—In making competitive awards under this subsection, subject to the requirements of section 989, the Secretary shall—

"(A) give preference to proposals from partnerships among industrial, academic, and government entities; and

"(B) require recipients to provide assurances that all laborers and mechanics employed by contractors and subcontractors in the construction, repair, or alteration of new or existing facilities performed in order to carry out a demonstration or commercial application activity authorized under this subsection shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code, and the Secretary of Labor shall, with respect to the labor standards in this paragraph, have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176; 5 U.S.C. Appendix) and section 3145 of title 40, United States Code.

"(6) COST SHARING.—Activities under this subsection shall be considered research and development activities that are subject to the cost-sharing requirements of section 988(b), except that the Fed-

eral share of a project under paragraph (4) shall not exceed 50 percent.

"(d) AUTHORIZATION OF APPROPRIATIONS.—

"(1) IN GENERAL.—There are authorized to be appropriated to the Secretary for carrying out this section, other than subsection (c)(3) and (4)—

"(A) $100,000,000 for fiscal year 2008;

"(B) $100,000,000 for fiscal year 2009;

"(C) $100,000,000 for fiscal year 2010; and

"(D) $100,000,000 for fiscal year 2011.

"(2) SEQUESTRATION.—There are authorized to be appropriated to the Secretary for carrying out subsection (c)(3)—

"(A) $140,000,000 for fiscal year 2008;

"(B) $140,000,000 for fiscal year 2009;

"(C) $140,000,000 for fiscal year 2010; and

"(D) $140,000,000 for fiscal year 2011.

"(3) CARBON CAPTURE.—There are authorized to be appropriated to the Secretary for carrying out subsection (c)(4)—

"(A) $180,000,000 for fiscal year 2009;

"(B) $180,000,000 for fiscal year 2010;

"(C) $180,000,000 for fiscal year 2011; and

"(D) $180,000,000 for fiscal year 2012.".

(b) TABLE OF CONTENTS AMENDMENT.—The item relating to section 963 in the table of contents for the Energy Policy Act of 2005 is amended to read as follows:

"Sec. 963. Carbon capture and storage research, development, and demonstration program.".

SEC. 4503. REVIEW OF LARGE-SCALE PROGRAMS.

The Secretary of Energy shall enter into an arrangement with the National Academy of Sciences for an independent review and oversight, beginning in 2011, of the programs under section 963(c)(3) and (4) of the Energy Policy Act of 2005, as added by section 4502 of this subtitle, to ensure that the benefits of such programs are maximized. Not later than January 1, 2012, the Secretary shall transmit to the Congress a report on the results of such review and oversight.

SEC. 4504. SAFETY RESEARCH.

(a) PROGRAM.—The Assistant Administrator for Research and Development of the Environmental Protection Agency shall conduct a research program to determine procedures necessary to protect public health, safety, and the environment from impacts that may be associated with capture, injection, and sequestration of greenhouse gases in subterranean reservoirs.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for carrying out this section $5,000,000 for each fiscal year.

SEC. 4505. GEOLOGICAL SEQUESTRATION TRAINING AND RESEARCH.

(a) STUDY.—

(1) IN GENERAL.—The Secretary of Energy shall enter into an arrangement with the National Academy of Sciences to undertake a study that—

(A) defines an interdisciplinary program in geology, engineering, hydrology, environmental science, and related disciplines that will support the Nation's capability to capture and sequester carbon dioxide from anthropogenic sources;

(B) addresses undergraduate and graduate education, especially to help develop graduate level programs of research and instruction that lead to advanced degrees with emphasis on geological sequestration science;

(C) develops guidelines for proposals from colleges and universities with substantial capabilities in the required disciplines that wish to implement geological sequestration science programs that advance the Nation's capacity to ad-

dress carbon management through geological sequestration science; and

(D) outlines a budget and recommendations for how much funding will be necessary to establish and carry out the grant program under subsection (b).

(2) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall transmit to the Congress a copy of the results of the study provided by the National Academy of Sciences under paragraph (1).

(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this subsection $1,000,000 for fiscal year 2008.

(b) GRANT PROGRAM.—

(1) ESTABLISHMENT.—The Secretary of Energy, through the National Energy Technology Laboratory, shall establish a competitive grant program through which colleges and universities may apply for and receive 4-year grants for—

(A) salary and startup costs for newly designated faculty positions in an integrated geological carbon sequestration science program; and

(B) internships for graduate students in geological sequestration science.

(2) RENEWAL.—Grants under this subsection shall be renewable for up to 2 additional 3-year terms, based on performance criteria, established by the National Academy of Sciences study conducted under subsection (a), that include the number of graduates of such programs.

(3) INTERFACE WITH REGIONAL GEOLOGICAL CARBON SEQUESTRATION PARTNERSHIPS.—To the greatest extent possible, geological carbon sequestration science programs supported under this subsection shall interface with the research of the Regional Carbon Sequestration Partnerships operated by the Department of Energy to provide internships and practical training in carbon capture and geological sequestration.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this subsection such sums as may be necessary.

SEC. 4506. UNIVERSITY BASED RESEARCH AND DEVELOPMENT GRANT PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy, in consultation with other appropriate agencies, shall estab-

lish a university based research and development program to study carbon capture and sequestration using the various types of coal.

(b) GRANTS.—Under this section, the Secretary shall award 5 grants for projects submitted by colleges or universities to study carbon capture and sequestration in conjunction with the recovery of oil and other enhanced elemental and mineral recovery. Consideration shall be given to areas that have regional sources of coal for the study of carbon capture and sequestration.

(c) RURAL AND AGRICULTURAL INSTITUTIONS.—The Secretary shall designate that at least 2 of these grants shall be awarded to rural or agricultural based institutions that offer interdisciplinary programs in the area of environmental science to study carbon capture and sequestration in conjunction with the recovery of oil and other enhanced elemental and mineral recovery.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are to be authorized to be appropriated $10,000,000 to carry out this section.

Subtitle G—Global Change Research

SEC. 4601. SHORT TITLE.

This subtitle may be cited as the ''Global Change Research and Data Management Act of 2007''.

PART 1—GLOBAL CHANGE RESEARCH

SEC. 4611. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress makes the following findings:

(1) Industrial, agricultural, and other human activities, coupled with an expanding world population, are contributing to processes of global change that are significantly altering the Earth habitat.

(2) Such human-induced changes, in conjunction with natural fluctuations, may lead to significant alterations of world climate patterns. Over the next century, these changes could adversely affect world agricultural and marine production, coastal habitability, biological diversity, human health, global social and political stability, and global economic activity.

(3) Developments in interdisciplinary Earth sciences, global observing systems, and satellite and computing technologies make possible significant scientific understanding of global changes and their effects, and have resulted in the significant expansion of environmental data and information.

(4) Development of effective policies to prevent, mitigate, and adapt to global change will rely on improvement in scientific understanding of global environmental processes and on development of informa-

tion that is of use to decisionmakers at the local, regional, and national levels.

(5) Although the United States Global Change Research Program has made significant contributions to understanding Earth's climate and the anthropogenic influences on Earth's climate and its ecosystems, the Program now needs to produce more information to meet the expressed needs of decisionmakers.

(6) Predictions of future climate conditions for specific regions have considerable uncertainty and are unlikely to be confirmed in a time period necessary to inform decisions on land, water, and resource management. However, improved understanding of global change should be used to assist decisionmakers in the development of policies to ensure that ecological, social, and economic systems are resilient under a variety of plausible climate futures.

(7) In order to most effectively meet the needs of decisionmakers, both the research agenda of the United States Global Change Research Program and its implementation must be informed by continuous feedback from documented users of information generated by the Program.

(b) PURPOSE.—The purpose of this part is to provide for the continuation and coordination of a comprehensive and integrated United States observation, research, and outreach program which will assist the Nation and the world to understand, assess, predict, and respond to the effects of human-induced and natural processes of global change.

SEC. 4612. DEFINITIONS.

For purposes of this part—

(1) the term ''global change'' means human-induced or natural changes in the global environment (including alterations in climate, land productivity, oceans or other water resources, atmospheric chemistry, biodiversity, and ecological systems) that may alter the capacity of the Earth to sustain life;

(2) the term ''global change research'' means study, monitoring, assessment, prediction, and information management activities to describe and understand—

(A) the interactive physical, chemical, and biological processes that regulate the total Earth system;

(B) the unique environment that the Earth provides for life;

(C) changes that are occurring in the Earth system; and

(D) the manner in which such system, environment, and changes are influenced by human actions;

(3) the term ''interagency committee'' means the interagency committee established under section 4613;

(4) the term ''Plan'' means the National Global Change Research and Assessment Plan developed under section 4615;

(5) the term ''Program'' means the United States Global Change Research Program established under section 4614; and

(6) the term ''regional climate change'' means the natural or human-induced changes manifested in the local or regional environment (including alterations in weather patterns, land productivity, water resources, sea level rise, atmospheric chemistry, biodiversity, and ecological systems) that may alter the capacity of a specific region to support current or future social and economic activity or natural ecosystems.

SEC. 4613. INTERAGENCY COOPERATION AND COORDINATION.

(a) ESTABLISHMENT.—The President shall establish or designate an interagency committee to ensure cooperation and coordination of all Federal research activities pertaining to processes of global change for the purpose of increasing the overall effectiveness and productivity of Federal global change research efforts. The interagency committee shall include representatives of both agencies conducting global change research and agencies with authority over resources likely to be affected by global change.

(b) FUNCTIONS OF THE INTERAGENCY COMMITTEE.—The interagency committee shall—

(1) serve as the forum for developing the Plan and for overseeing its implementation;

(2) serve as the forum for developing the vulnerability assessment under section 4617;

(3) ensure cooperation among Federal agencies with respect to global change research activities;

(4) work with academic, State, industry, and other groups conducting global change research, to provide for periodic public and peer review of the Program;

(5) cooperate with the Secretary of State in—

(A) providing representation at international meetings and conferences on global change research in which the United States participates; and

(B) coordinating the Federal activities of the United States with programs of other nations and with international global change research activities;

(6) work with appropriate Federal, State, regional, and local authorities to ensure that the Program is designed to produce information needed to develop policies to reduce the vulnerability of the United States and other regions to global change;

(7) facilitate ongoing dialog and information exchange with regional, State, and local governments and other user communities; and

(8) identify additional decisionmaking groups that may use information generated through the Program.

SEC. 4614. UNITED STATES GLOBAL CHANGE RESEARCH PROGRAM.

(a) ESTABLISHMENT.—The President shall establish an interagency United States Global Change Research Program to improve understanding of global change, to respond to the information needs of communities and deci-

1 sionmakers, and to provide periodic assessments of the
2 vulnerability of the United States and other regions to
3 global and regional climate change. The Program shall be
4 implemented in accordance with the Plan.

5 (b) LEAD AGENCY.—The lead agency for the United
6 States Global Change Research Program shall be the Of-
7 fice of Science and Technology Policy.

8 (c) INTERAGENCY PROGRAM ACTIVITIES.—The Di-
9 rector of the Office of Science and Technology Policy, in
10 consultation with the interagency committee, shall identify
11 activities included in the Plan that involve participation
12 by 2 or more agencies in the Program, and that do not
13 fall within the current fiscal year budget allocations of
14 those participating agencies, to fulfill the requirements of
15 this subtitle. The Director of the Office of Science and
16 Technology Policy shall allocate funds to the agencies to
17 conduct the identified interagency activities. Such activi-
18 ties may include—

19 (1) development of scenarios for climate, land-
20 cover change, population growth, and socioeconomic
21 development;

22 (2) calibration and testing of alternative re-
23 gional and global climate models;

24 (3) identification of economic sectors and re-
25 gional climatic zones; and

(4) convening regional workshops to facilitate information exchange and involvement of regional, State, and local decisionmakers, non-Federal experts, and other stakeholder groups in the activities of the Program.

(d) WORKSHOPS.—The Director shall ensure that at least one workshop is held per year in each region identified by the Plan under section 4615(b)(11) to facilitate information exchange and outreach to regional, State, and local stakeholders as required by this subtitle.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Office of Science and Technology Policy for carrying out this section $10,000,000 for each of the fiscal years 2008 through 2013.

SEC. 4615. NATIONAL GLOBAL CHANGE RESEARCH AND ASSESSMENT PLAN.

(a) IN GENERAL.—The President shall develop a National Global Change Research and Assessment Plan for implementation of the Program. The Plan shall contain recommendations for global change research and assessment. The President shall submit an outline for the development of the Plan to the Congress within 1 year after the date of enactment of this Act, and shall submit a completed Plan to the Congress within 3 years after the date

of enactment of this Act. Revised Plans shall be submitted to the Congress at least once every 5 years thereafter. In the development of each Plan, the President shall conduct a formal assessment process under this section to determine the needs of appropriate Federal, State, regional, and local authorities and other interested parties regarding the types of information needed by them in developing policies to reduce society's vulnerability to global change and shall utilize these assessments, including the reviews by the National Academy of Sciences and the National Governors Association under subsections (e) and (f), in developing the Plan.

(b) CONTENTS OF THE PLAN.—The Plan shall—

(1) establish, for the 10-year period beginning in the year the Plan is submitted, the goals and priorities for Federal global change research which most effectively advance scientific understanding of global change and provide information of use to Federal, State, regional, and local authorities in the development of policies relating to global change;

(2) describe specific activities, including efforts to determine user information needs, research activities, data collection, database development, and data analysis requirements, development of regional scenarios, assessment of model predictability, assess-

ment of climate change impacts, participation in international research efforts, and information management, required to achieve such goals and priorities;

(3) identify relevant programs and activities of the Federal agencies that contribute to the Program directly and indirectly;

(4) set forth the role of each Federal agency in implementing the Plan;

(5) consider and utilize, as appropriate, reports and studies conducted by Federal agencies, the National Research Council, or other entities;

(6) make recommendations for the coordination of the global change research and assessment activities of the United States with such activities of other nations and international organizations, including—

(A) a description of the extent and nature of international cooperative activities;

(B) bilateral and multilateral efforts to provide worldwide access to scientific data and information; and

(C) improving participation by developing nations in international global change research and environmental data collection;

(7) detail budget requirements for Federal global change research and assessment activities to be conducted under the Plan;

(8) catalog the type of information identified by appropriate Federal, State, regional, and local decisionmakers needed to develop policies to reduce society's vulnerability to global change and indicate how the planned research will meet these decisionmakers' information needs;

(9) identify the observing systems currently employed in collecting data relevant to global and regional climate change research and prioritize additional observation systems that may be needed to ensure adequate data collection and monitoring of global change;

(10) describe specific activities designed to facilitate outreach and data and information exchange with regional, State, and local governments and other user communities; and

(11) identify and describe regions of the United States that are likely to experience similar impacts of global change or are likely to share similar vulnerabilities to global change.

(c) RESEARCH ELEMENTS.—The Plan shall include at a minimum the following research elements:

(1) Global measurements, establishing worldwide to regional scale observations prioritized to understand global change and to meet the information needs of decisionmakers on all relevant spatial and time scales.

(2) Information on economic, demographic, and technological trends that contribute to changes in the Earth system and that influence society's vulnerability to global and regional climate change.

(3) Development of indicators and baseline databases to document global change, including changes in species distribution and behavior, extent of glaciations, and changes in sea level.

(4) Studies of historical changes in the Earth system, using evidence from the geological and fossil record.

(5) Assessments of predictability using quantitative models of the Earth system to simulate global and regional environmental processes and trends.

(6) Focused research initiatives to understand the nature of and interaction among physical, chemical, biological, land use, and social processes related to global and regional climate change.

(7) Focused research initiatives to determine and then meet the information needs of appropriate Federal, State, and regional decisionmakers.

(d) INFORMATION MANAGEMENT.—The Plan shall incorporate, to the extent practicable, the recommendations relating to data acquisition, management, integration, and archiving made by the interagency climate and other global change data management working group established under section 4633.

(e) NATIONAL ACADEMY OF SCIENCES EVALUATION.—The President shall enter into an agreement with the National Academy of Sciences under which the Academy shall—

(1) evaluate the scientific content of the Plan; and

(2) recommend priorities for future global and regional climate change research and assessment.

(f) NATIONAL GOVERNORS ASSOCIATION EVALUATION.—The President shall enter into an agreement with the National Governors Association Center for Best Practices under which that Center shall—

(1) evaluate the utility to State, local, and regional decisionmakers of each Plan and of the anticipated and actual information outputs of the Pro-

gram for development of State, local, and regional policies to reduce vulnerability to global change; and

(2) recommend priorities for future global and regional climate change research and assessment.

(g) PUBLIC PARTICIPATION.—In developing the Plan, the President shall consult with representatives of academic, State, industry, and environmental groups. Not later than 90 days before the President submits the Plan, or any revision thereof, to the Congress, a summary of the proposed Plan shall be published in the Federal Register for a public comment period of not less than 60 days.

SEC. 4616. BUDGET COORDINATION.

(a) IN GENERAL.—The President shall provide general guidance to each Federal agency participating in the Program with respect to the preparation of requests for appropriations for activities related to the Program.

(b) CONSIDERATION IN PRESIDENT'S BUDGET.—The President shall submit, at the time of his annual budget request to Congress, a description of those items in each agency's annual budget which are elements of the Program.

SEC. 4617. VULNERABILITY ASSESSMENT.

(a) REQUIREMENT.—Within 1 year after the date of enactment of this Act, and at least once every 5 years

thereafter, the President shall submit to the Congress an assessment which—

(1) integrates, evaluates, and interprets the findings of the Program and discusses the scientific uncertainties associated with such findings;

(2) analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years;

(3) based on indicators and baselines developed under section 4615(c)(3), as well as other measurements, analyzes changes to the natural environment, land and water resources, and biological diversity in—

(A) major geographic regions of the United States; and

(B) other continents;

(4) analyzes the effects of global change, including the changes described in paragraph (3), on food and fiber production, energy production and use, transportation, human health and welfare, water availability and coastal infrastructure, and human social and economic systems, including providing information about the differential impacts on specific geographic regions within the United States, on people of different income levels within those regions,

and for rural and urban areas within those regions; and

(5) summarizes the vulnerability of different geographic regions of the world to global change and analyzes the implications of global change for the United States, including international assistance, population displacement, food and resource availability, and national security.

(b) USE OF RELATED REPORTS.—To the extent appropriate, the assessment produced pursuant to this section may coordinate with, consider, incorporate, or otherwise make use of related reports, assessments, or information produced by the United States Global Change Research Program, regional, State, and local entities, and international organizations, including the World Meteorological Organization and the Intergovernmental Panel on Climate Change.

SEC. 4618. POLICY ASSESSMENT.

Not later than 1 year after the date of enactment of this Act, and at least once every 4 years thereafter, the President shall enter into a joint agreement with the National Academy of Public Administration and the National Academy of Sciences under which the Academies shall—

(1) document current policy options being implemented by Federal, State, and local governments to mitigate or adapt to the effects of global and regional climate change;

(2) evaluate the realized and anticipated effectiveness of those current policy options in meeting mitigation and adaptation goals;

(3) identify and evaluate a range of additional policy options and infrastructure for mitigating or adapting to the effects of global and regional climate change;

(4) analyze the adoption rates of policies and technologies available to reduce the vulnerability of society to global change with an evaluation of the market and policy obstacles to their adoption in the United States; and

(5) evaluate the distribution of economic costs and benefits of these policy options across different United States economic sectors.

SEC. 4619. ANNUAL REPORT.

Each year at the time of submission to the Congress of the President's budget request, the President shall submit to the Congress a report on the activities conducted pursuant to this part, including—

(1) a description of the activities of the Program during the past fiscal year;

(2) a description of the activities planned in the next fiscal year toward achieving the goals of the Plan; and

(3) a description of the groups or categories of State, local, and regional decisionmakers identified as potential users of the information generated through the Program and a description of the activities used to facilitate consultations with and outreach to these groups, coordinated through the work of the interagency committee.

SEC. 4620. RELATION TO OTHER AUTHORITIES.

The President shall—

(1) ensure that relevant research, assessment, and outreach activities of the National Climate Program, established by the National Climate Program Act (15 U.S.C. 2901 et seq.), are considered in developing national global and regional climate change research and assessment efforts; and

(2) facilitate ongoing dialog and information exchange with regional, State, and local governments and other user communities through programs authorized in the National Climate Program Act (15 U.S.C. 2901 et seq.).

SEC. 4621. REPEAL.

The Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.) is repealed.

SEC. 4622. GLOBAL CHANGE RESEARCH INFORMATION.

The President shall establish or designate a Global Change Research Information Exchange to make scientific research and other information produced through or utilized by the Program which would be useful in preventing, mitigating, or adapting to the effects of global change accessible through electronic means.

SEC. 4623. ICE SHEET STUDY AND REPORT.

(a) STUDY.—

(1) REQUIREMENT.—The Director of the National Science Foundation and the Administrator of National Oceanic and Atmospheric Administration shall enter into an arrangement with the National Academy of Sciences to complete a study of the current status of ice sheet melt, as caused by climate change, with implications for global sea level rise.

(2) CONTENTS.—The study shall take into consideration—

(A) the past research completed related to ice sheet melt as reviewed by Working Group I of the Intergovernmental Panel on Climate Change;

(B) additional research completed since the fall of 2005 that was not included in the Working Group I report due to time constraints; and

(C) the need for an accurate assessment of changes in ice sheet spreading, changes in ice sheet flow, self-lubrication, the corresponding effect on ice sheets, and current modeling capabilities.

(3) REPORT.—Not later than 18 months after the date of enactment of this Act, the National Academy of Sciences shall transmit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the key findings of the study conducted under subsection (a), along with recommendations for additional research related to ice sheet melt and corresponding sea level rise.

SEC. 4624. HURRICANE FREQUENCY AND INTENSITY STUDY AND REPORT.

(a) STUDY.—

(1) REQUIREMENT.—The Administrator of the National Oceanic and Atmospheric Administration and the Director of the National Science Foundation shall enter into an arrangement with the National

Academy of Sciences to complete a study of the current state of the science on the potential impacts of climate change on patterns of hurricane and typhoon development, including storm intensity, track, and frequency, and the implications for hurricane-prone and typhoon-prone coastal regions.

(2) CONTENTS.—The study shall take into consideration—

(A) the past research completed related to hurricane and typhoon development, track, and intensity as reviewed by Working Groups I and II of the Intergovernmental Panel on Climate Change;

(B) additional research completed since the fall of 2005 that was not included in the Working Group I and II reports due to time constraints;

(C) the need for accurate assessment of potential changes in hurricane and typhoon intensity, track, and frequency and of the current modeling and forecasting capabilities and the need for improvements in forecasting of these parameters; and

(D) the need for additional research and monitoring to improve forecasting of hurricanes

and typhoons and to understand the relationship between climate change and hurricane and typhoon development.

(3) REPORT.—Not later than 18 months after the date of enactment of this Act, the National Academy of Sciences shall transmit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the key findings of the study conducted under subsection (a).

PART 2—CLIMATE AND OTHER GLOBAL CHANGE DATA MANAGEMENT

SEC. 4631. FINDINGS AND PURPOSES.

(a) FINDINGS.—The Congress makes the following findings:

(1) Federal agencies have a primary mission to manage and archive climate and other global change data obtained through their research, development, or operational activities.

(2) Maintenance of climate and global change data records is essential to present and future studies of the Earth's atmosphere, biogeochemical cycles, and climate.

(3) Federal capabilities for the management and archiving of these data have not kept pace with advances in satellite and other observational technologies that have vastly expanded the type and amount of information that can be collected.

(4) Proposals and plans for expansion of global observing networks should include plans for the management of data to be collected and budgets reflecting the cost of support for management and archiving of data.

(b) PURPOSES.—The purposes of this part are to establish climate and other global change data management and archiving as Federal agency missions, and to establish Federal policies for managing and archiving climate and other global change data.

SEC. 4632. DEFINITIONS.

For purposes of this part—

(1) the term ''metadata'' means information describing the content, quality, condition, and other characteristics of climate and other global change data, compiled, to the maximum extent possible, consistent with the requirements of the ''Content Standard for Digital Geospatial Metadata'' (FGDC–STD–001–1998) issued by the Federal Geographic Data

Committee, or any successor standard approved by the working group; and

(2) the term ''working group'' means the interagency climate and other global change data management working group established under section 4633.

SEC. 4633. INTERAGENCY CLIMATE AND OTHER GLOBAL CHANGE DATA MANAGEMENT WORKING GROUP.

(a) ESTABLISHMENT.—The President shall establish or designate an interagency climate and other global change data management working group to make recommendations for coordinating Federal climate and other global change data management and archiving activities.

(b) MEMBERSHIP.—The working group shall include the Administrator of the National Aeronautics and Space Administration, the Administrator of the National Oceanic and Atmospheric Administration, the Secretary of Energy, the Secretary of Defense, the Director of the National Science Foundation, the Director of the United States Geological Survey, the Archivist of the United States, the Administrator of the Environmental Protection Agency, the Secretary of the Smithsonian Institution, or their designees, and representatives of any other Federal agencies the President considers appropriate.

(c) REPORTS.—Not later than 1 year after the date of enactment of this Act, the working group shall transmit a report to the Congress containing the elements described in subsection (d). Not later than 4 years after the initial report under this subsection, and at least once every 4 years thereafter, the working group shall transmit reports updating the previous report. In preparing reports under this subsection, the working group shall consult with expected users of the data collected and archived by the Program.

(d) CONTENTS.—The reports and updates required under subsection (c) shall—

(1) include recommendations for the establishment, maintenance, and accessibility of a catalog identifying all available climate and other global change data sets;

(2) identify climate and other global change data collections in danger of being lost and recommend actions to prevent such loss;

(3) identify gaps in climate and other global change data and recommend actions to fill those gaps;

(4) identify effective and compatible procedures for climate and other global change data collection, management, and retention and make recommenda-

tions for ensuring their use by Federal agencies and other appropriate entities;

(5) develop and propose a coordinated strategy for funding and allocating responsibilities among Federal agencies for climate and other global change data collection, management, and retention;

(6) make recommendations for ensuring that particular attention is paid to the collection, management, and archiving of metadata;

(7) make recommendations for ensuring a unified and coordinated Federal capital investment strategy with respect to climate and other global change data collection, management, and archiving;

(8) evaluate the data record from each observing system and make recommendations to ensure that delivered data are free from time-dependent biases and random errors before they are transferred to long-term archives; and

(9) evaluate optimal design of observation system components to ensure a cost-effective, adequate set of observations detecting and tracking global change.

Subtitle H—H-Prize

SEC. 4701. H-PRIZE.

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

"(f) H-PRIZE.—

"(1) PRIZE AUTHORITY.—

"(A) IN GENERAL.—As part of the program under this section, the Secretary shall carry out a program to competitively award cash prizes in conformity with this subsection to advance the research, development, demonstration, and commercial application of hydrogen energy technologies.

"(B) ADVERTISING AND SOLICITATION OF COMPETITORS.—

"(i) ADVERTISING.—The Secretary shall widely advertise prize competitions under this subsection to encourage broad participation, including by individuals, universities (including historically Black colleges and universities and other minority serving institutions), and large and small businesses (including businesses owned or

1 controlled by socially and economically dis-
2 advantaged persons).
3 "(ii) ANNOUNCEMENT THROUGH FED-
4 ERAL REGISTER NOTICE.—The Secretary
5 shall announce each prize competition
6 under this subsection by publishing a no-
7 tice in the Federal Register. This notice
8 shall include essential elements of the com-
9 petition such as the subject of the competi-
10 tion, the duration of the competition, the
11 eligibility requirements for participation in
12 the competition, the process for partici-
13 pants to register for the competition, the
14 amount of the prize, and the criteria for
15 awarding the prize.
16 "(C) ADMINISTERING THE COMPETI-
17 TIONS.—The Secretary shall enter into an
18 agreement with a private, nonprofit entity to
19 administer the prize competitions under this
20 subsection, subject to the provisions of this sub-
21 section (in this subsection referred to as the
22 'administering entity'). The duties of the ad-
23 ministering entity under the agreement shall in-
24 clude—

"(i) advertising prize competitions under this subsection and their results;

"(ii) raising funds from private entities and individuals to pay for administrative costs and to contribute to cash prizes, including funds provided in exchange for the right to name a prize awarded under this subsection;

"(iii) developing, in consultation with and subject to the final approval of the Secretary, the criteria for selecting winners in prize competitions under this subsection, based on goals provided by the Secretary;

"(iv) determining, in consultation with the Secretary, the appropriate amount and funding sources for each prize to be awarded under this subsection, subject to the final approval of the Secretary with respect to Federal funding;

"(v) providing advice and consultation to the Secretary on the selection of judges in accordance with paragraph (2)(D), using criteria developed in consultation with and subject to the final approval of the Secretary; and

"(vi) protecting against the administering entity's unauthorized use or disclosure of a registered participant's trade secrets and confidential business information. Any information properly identified as trade secrets or confidential business information that is submitted by a participant as part of a competitive program under this subsection may be withheld from public disclosure.

"(D) FUNDING SOURCES.—Prizes under this subsection shall consist of Federal appropriated funds and any funds provided by the administering entity (including funds raised pursuant to subparagraph (C)(ii)) for such cash prize programs. The Secretary may accept funds from other Federal agencies for such cash prizes and, notwithstanding section 3302(b) of title 31, United States Code, may use such funds for the cash prize program under this subsection. Other than publication of the names of prize sponsors, the Secretary may not give any special consideration to any private sector entity or individual in return for a donation to the Secretary or administering entity.

"(E) ANNOUNCEMENT OF PRIZES.—The Secretary may not issue a notice required by subparagraph (B)(ii) until all the funds needed to pay out the announced amount of the prize have been appropriated or committed in writing by the administering entity. The Secretary may increase the amount of a prize after an initial announcement is made under subparagraph (B)(ii) if—

"(i) notice of the increase is provided in the same manner as the initial notice of the prize; and

"(ii) the funds needed to pay out the announced amount of the increase have been appropriated or committed in writing by the administering entity.

"(F) SUNSET.—The authority to announce prize competitions under this subsection shall terminate on September 30, 2018.

"(2) PRIZE CATEGORIES.—

"(A) CATEGORIES.—The Secretary shall establish prizes under this subsection for—

"(i) advancements in technologies, components, or systems related to—

"(I) hydrogen production;

1 ''(II) hydrogen storage;
2 ''(III) hydrogen distribution; and
3 ''(IV) hydrogen utilization;
4 ''(ii) prototypes of hydrogen-powered
5 vehicles or other hydrogen-based products
6 that best meet or exceed objective perform-
7 ance criteria, such as completion of a race
8 over a certain distance or terrain or gen-
9 eration of energy at certain levels of effi-
10 ciency; and
11 ''(iii) transformational changes in
12 technologies for the distribution or produc-
13 tion of hydrogen that meet or exceed far-
14 reaching objective criteria, which shall in-
15 clude minimal carbon emissions and which
16 may include cost criteria designed to facili-
17 tate the eventual market success of a win-
18 ning technology.
19 ''(B) AWARDS.—
20 ''(i) ADVANCEMENTS.—To the extent
21 permitted under paragraph (1)(E), the
22 prizes authorized under subparagraph
23 (A)(i) shall be awarded biennially to the
24 most significant advance made in each of
25 the four subcategories described in sub-

clauses (I) through (IV) of subparagraph (A)(i) since the submission deadline of the previous prize competition in the same category under subparagraph (A)(i) or the date of enactment of this subsection, whichever is later, unless no such advance is significant enough to merit an award. No one such prize may exceed $1,000,000. If less than $4,000,000 is available for a prize competition under subparagraph (A)(i), the Secretary may omit one or more subcategories, reduce the amount of the prizes, or not hold a prize competition.

''(ii) PROTOTYPES.—To the extent permitted under paragraph (1)(E), prizes authorized under subparagraph (A)(ii) shall be awarded biennially in alternate years from the prizes authorized under subparagraph (A)(i). The Secretary is authorized to award up to one prize in this category in each 2-year period. No such prize may exceed $4,000,000. If no registered participants meet the objective performance criteria established pursuant to subparagraph (C) for a competition under

this clause, the Secretary shall not award a prize.

"(iii) TRANSFORMATIONAL TECHNOLOGIES.—To the extent permitted under paragraph (1)(E), the Secretary shall announce one prize competition authorized under subparagraph (A)(iii) as soon after the date of enactment of this subsection as is practicable. A prize offered under this clause shall be not less than $10,000,000, paid to the winner in a lump sum, and an additional amount paid to the winner as a match for each dollar of private funding raised by the winner for the hydrogen technology beginning on the date the winner was named. The match shall be provided for 3 years after the date the prize winner is named or until the full amount of the prize has been paid out, whichever occurs first. A prize winner may elect to have the match amount paid to another entity that is continuing the development of the winning technology. The Secretary shall announce the rules for receiving the match in the notice required by paragraph

(1)(B)(ii). The Secretary shall award a prize under this clause only when a registered participant has met the objective criteria established for the prize pursuant to subparagraph (C) and announced pursuant to paragraph (1)(B)(ii). Not more than $10,000,000 in Federal funds may be used for the prize award under this clause. The administering entity shall seek to raise $40,000,000 toward the matching award under this clause.

"(C) CRITERIA.—In establishing the criteria required by this subsection, the Secretary—

"(i) shall consult with the Department's Hydrogen Technical and Fuel Cell Advisory Committee;

"(ii) shall consult with other Federal agencies, including the National Science Foundation; and

"(iii) may consult with other experts such as private organizations, including professional societies, industry associations, and the National Academy of

Sciences and the National Academy of Engineering.

"(D) JUDGES.—For each prize competition under this subsection, the Secretary in consultation with the administering entity shall assemble a panel of qualified judges to select the winner or winners on the basis of the criteria established under subparagraph (C). Judges for each prize competition shall include individuals from outside the Department, including from the private sector. A judge, spouse, minor children, and members of the judge's household may not—

"(i) have personal or financial interests in, or be an employee, officer, director, or agent of, any entity that is a registered participant in the prize competition for which he or she will serve as a judge; or

"(ii) have a familial or financial relationship with an individual who is a registered participant in the prize competition for which he or she will serve as a judge.

"(3) ELIGIBILITY.—To be eligible to win a prize under this subsection, an individual or entity—

"(A) shall have complied with all the requirements in accordance with the Federal Register notice required under paragraph (1)(B)(ii);

"(B) in the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States, and in the case of an individual, whether participating singly or in a group, shall be a citizen of, or an alien lawfully admitted for permanent residence in, the United States; and

"(C) shall not be a Federal entity, a Federal employee acting within the scope of his employment, or an employee of a national laboratory acting within the scope of his employment.

"(4) INTELLECTUAL PROPERTY.—The Federal Government shall not, by virtue of offering or awarding a prize under this subsection, be entitled to any intellectual property rights derived as a consequence of, or direct relation to, the participation by a registered participant in a competition authorized by this subsection. This paragraph shall not be construed to prevent the Federal Government from negotiating a license for the use of intellectual prop-

erty developed for a prize competition under this subsection.

"(5) LIABILITY.—

"(A) WAIVER OF LIABILITY.—The Secretary may require registered participants to waive claims against the Federal Government and the administering entity (except claims for willful misconduct) for any injury, death, damage, or loss of property, revenue, or profits arising from the registered participants' participation in a competition under this subsection. The Secretary shall give notice of any waiver required under this subparagraph in the notice required by paragraph (1)(B)(ii). The Secretary may not require a registered participant to waive claims against the administering entity arising out of the unauthorized use or disclosure by the administering entity of the registered participant's trade secrets or confidential business information.

"(B) LIABILITY INSURANCE.—

"(i) REQUIREMENTS.—Registered participants in a prize competition under this subsection shall be required to obtain liability insurance or demonstrate financial

1 responsibility, in amounts determined by
2 the Secretary, for claims by—
3 "(I) a third party for death, bod-
4 ily injury, or property damage or loss
5 resulting from an activity carried out
6 in connection with participation in a
7 competition under this subsection; and
8 "(II) the Federal Government for
9 damage or loss to Government prop-
10 erty resulting from such an activity.
11 "(ii) FEDERAL GOVERNMENT IN-
12 SURED.—The Federal Government shall be
13 named as an additional insured under a
14 registered participant's insurance policy re-
15 quired under clause (i)(I), and registered
16 participants shall be required to agree to
17 indemnify the Federal Government against
18 third party claims for damages arising
19 from or related to competition activities
20 under this subsection.
21 "(6) REPORT TO CONGRESS.—Not later than
22 60 days after the awarding of the first prize under
23 this subsection, and annually thereafter, the Sec-
24 retary shall transmit to the Congress a report
25 that—

"(A) identifies each award recipient;

"(B) describes the technologies developed by each award recipient; and

"(C) specifies actions being taken toward commercial application of all technologies with respect to which a prize has been awarded under this subsection.

"(7) AUTHORIZATION OF APPROPRIATIONS.—

"(A) IN GENERAL.—

"(i) AWARDS.—There are authorized to be appropriated to the Secretary for the period encompassing fiscal years 2008 through 2017 for carrying out this subsection—

"(I) $20,000,000 for awards described in paragraph (2)(A)(i);

"(II) $20,000,000 for awards described in paragraph (2)(A)(ii); and

"(III) $10,000,000 for the award described in paragraph (2)(A)(iii).

"(ii) ADMINISTRATION.—In addition to the amounts authorized in clause (i), there are authorized to be appropriated to the Secretary for each of fiscal years 2008

and 2009 $2,000,000 for the administrative costs of carrying out this subsection.

"(B) CARRYOVER OF FUNDS.—Funds appropriated for prize awards under this subsection shall remain available until expended, and may be transferred, reprogrammed, or expended for other purposes only after the expiration of 10 fiscal years after the fiscal year for which the funds were originally appropriated. No provision in this subsection permits obligation or payment of funds in violation of section 1341 of title 31 of the United States Code (commonly referred to as the Anti-Deficiency Act).

"(8) NONSUBSTITUTION.—The programs created under this subsection shall not be considered a substitute for Federal research and development programs.".

TITLE V—AGRICULTURE ENERGY

SEC. 5001. TABLE OF CONTENTS.

Title IX of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101 et seq.) is amended by inserting before section 9001 the following new section:

"SEC. 9000. TABLE OF CONTENTS.

"The table of contents of this title is as follows:

"TITLE IX—ENERGY

"Sec. 9000. Table of contents.
"Sec. 9001. Definitions.
"Sec. 9002. Federal procurement of biobased products.
"Sec. 9003. Biorefinery development grants; loan guarantees for biorefineries and biofuel production plants.
"Sec. 9004. Biodiesel fuel education program.
"Sec. 9005. Energy audit and renewable energy development program.
"Sec. 9006. Rural energy for America program.
"Sec. 9007. Hydrogen and fuel cell technologies.
"Sec. 9008. Biomass Research and Development Act of 2000.
"Sec. 9009. Cooperative research and extension projects.
"Sec. 9010. Continuation of bioenergy program.
"Sec. 9011. Research, extension, and educational programs on biobased energy technologies and products.
"Sec. 9012. Energy Council of the Department of Agriculture.
"Sec. 9013. Forest bioenergy research program.".

SEC. 5002. FEDERAL PROCUREMENT OF BIOBASED PRODUCTS.

Section 9002 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102) is amended—

(1) in subsection (c)(1), by inserting ", composed of at least five percent of intermediate ingredients and feedstocks (such as biopolymers, methyl soyate, and soy polyols) as designated by the Secretary," after "highest percentage of biobased products practicable";

(2) by striking subsection (h)(2) and inserting the following:

"(2) ELIGIBILITY CRITERIA.—

"(A) IN GENERAL.—Not later than 90 days after the date of the enactment of the New

Direction for Energy Independence, National Security, and Consumer Protection Act, the Secretary, in consultation with other Federal departments and agencies and with non-governmental groups with an interest in biobased products, including small and large producers of biobased materials and products, industry, trade organizations, academia, consumer organizations, and environmental organizations, shall issue criteria for determining which products may qualify to receive the label under paragraph (1). The criteria shall encourage the purchase of products with the maximum biobased content, and should, to the maximum extent possible, be consistent with the guidelines issued under subsection (e).

"(B) INTERMEDIATE INGREDIENTS.—The criteria issued under subparagraph (A) shall provide that the Secretary may designate intermediate ingredients and feedstocks (such as biopolymers, methyl soyate, and soy polyols) as biobased for the purposes of the voluntary program established under this subsection."; and

(3) by striking subsection (k)(2)(A) and inserting the following:

"(A) IN GENERAL.—Of the funds of the Commodity Credit Corporation, the Secretary shall use $2,000,000 for each of fiscal years 2008 through 2012 for bio-product testing and support ongoing operations of the Designation Program, the Voluntary Labeling Program, procurement program models, procurement research, promotion, education, and awareness of the BioPreferred Program.".

SEC. 5003. LOAN GUARANTEES FOR BIOREFINERIES AND BIOFUEL PRODUCTION PLANTS.

Section 9003 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8103) is amended—

(1) in the section heading, by inserting "**; LOAN GUARANTEES FOR BIOREFINERIES AND BIOFUEL PRODUCTION PLANTS**" after "**GRANTS**";

(2) in subsection (b)(2)(A), by striking "and" the 1st place it appears and inserting "or";

(3) in subsection (c), by redesignating subsection (h) as subsection (j) and subsections (d) through (g) as subsections (e) through (h), respectively, and inserting after subsection (c) the following:

"(d) LOAN GUARANTEES.—

"(1) IN GENERAL.—The Secretary shall make loan guarantees to eligible entities to assist in paying the cost of development and construction of biorefineries and biofuel production plants (including retrofitting) to carry out projects to demonstrate the commercial viability of 1 or more processes for converting biomass to fuels or chemicals.

"(2) LIMITATIONS.—

"(A) MAXIMUM PERCENTAGE OF LOAN GUARANTEED.—A loan guarantee under paragraph (1) shall be for not more than 90 percent of the principal and interest due on the loan.

"(B) TOTAL AMOUNTS GUARANTEED.—The total amount of principal and interest guaranteed under paragraph (1) shall not exceed—

"(i) $600,000,000, in the case of loans valued at not more than $100,000,000; or

"(ii) $1,000,000,000, in the case of loans valued at more than $100,000,000 but not more than $250,000,000.

"(C) MAXIMUM TERM OF LOAN GUARANTEED.—The Secretary shall determine the max-

imum term of a loan guarantee provided under paragraph (1).";

(4) in subsection (f) (as so redesignated)—

(A) in paragraph (1), by inserting "and loan guarantees under subsection (d)" after "(c)";

(B) in paragraph (2)(A), by inserting "or loan guarantees under subsection (d)" after "(c)";

(C) in paragraph (2)(B)—

(i) by striking "and" at the end of clause (viii);

(ii) by striking the period at the end of clause (ix) and inserting "; and"; and

(iii) by adding at the end the following:

"(x) The level of local ownership."; and

(D) by adding at the end the following:

"(3) PRIORITY IN AWARDING LOAN GUARANTEES.—In selecting projects to receive loan guarantees under subsection (d), the Secretary shall give priority to projects based on the criteria set forth in paragraph (2)(B) of this subsection.";

(5) by inserting after subsection (h) the following new subsection:

"(i) CONDITION OF PROVISION OF ASSISTANCE.—As a condition of receiving a grant or loan guarantee under this section, the eligible entity shall ensure that all laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed in whole or in part with the grant or loan guarantee, as the case may be, shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with sections 3141 through 3144, 3146, and 3147 of title 40, United States Code. The Secretary of Labor shall have, with respect to such labor standards, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176; 64 Stat. 1267) and section 3145 of such title.";

(6) in subsection (j) (as so redesignated), by striking "2007" and inserting "2012"; and

(7) by adding at the end the following new subsections:

"(k) ADDITIONAL FUNDING FOR LOAN GUARANTEES.—Of the funds of the Commodity Credit Corporation, the Secretary shall use to carry out this section—

"(1) $50,000,000 for fiscal year 2008;

"(2) $65,000,000 for fiscal year 2009;

"(3) $75,000,000 for fiscal year 2010;

"(4) $150,000,000 for fiscal year 2011; and

"(5) $250,000,000 for fiscal year 2012.

"(l) CONTINUATION OF OPERATIONS.—

"(1) FUNDING.—The Secretary shall continue to carry out this section at the rate of operation in effect on September 30, 2012, from sums in the Treasury not otherwise appropriated, through September 30, 2017.

"(2) AUTHORITY.—The program and authorities provided under this section shall continue in force and effect through September 30, 2017.".

SEC. 5004. BIODIESEL FUEL EDUCATION PROGRAM.

Section 9004(d) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8104(d)) is amended to read as follows:

"(d) FUNDING.—Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall make available to carry out this section $2,000,000 for each of fiscal years 2008 through 2012.".

SEC. 5005. ENERGY AUDIT AND RENEWABLE ENERGY DEVELOPMENT PROGRAM.

Section 9005(i) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8105) is amended by striking ''2007'' and inserting ''2012''.

SEC. 5006. RENEWABLE ENERGY SYSTEMS AND ENERGY EFFICIENCY IMPROVEMENTS.

Section 9006 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8106) is amended—

(1) by striking the section heading and inserting the following:

''SEC. 9006. RURAL ENERGY FOR AMERICA PROGRAM.'';

(2) in subsection (a)—

(A) in the matter preceding paragraph (1), by inserting '', other agricultural producer'' after ''rancher'';

(B) in paragraph (1), by striking ''and'' at the end;

(C) in paragraph (2), by striking the period and inserting ''; and''; and

(D) by adding at the end the following new paragraph:

''(3) produce and sell electricity generated by new renewable energy systems.'';

(3) in subsection (b), by inserting '', other agricultural producer'' after ''rancher'';

(4) in subsection (c)—

(A) in paragraph (1)—

(i) in subparagraph (B), by striking "50 percent" and inserting "75 percent"; and

(ii) by redesignating subparagraph (B) as subparagraph (C) and inserting after subparagraph (A) the following:

"(B) LOAN GUARANTEES.—

"(i) MAXIMUM AMOUNT.—The amount of a loan guaranteed under this section shall not exceed $25,000,000.

"(ii) MAXIMUM PERCENTAGE.—A loan guaranteed under this section shall not exceed 75 percent of the cost of the activity funded under subsection (a)."; and

(B) by adding at the end the following new paragraph:

"(3) PRIORITIZATION.—The Secretary shall give the greatest priority for grants under subsection (a) to activities for which the least percentage of the total cost of such activities is requested by the farmer, rancher, other agricultural producer, or rural small business.".

(5) by redesignating subsection (e) as subsection (g) and striking subsection (f);

(6) by inserting after subsection (d) the following new subsections:

''(e) FEASIBILITY STUDIES.—

''(1) IN GENERAL.—The Secretary may provide assistance to a farmer, rancher, other agricultural producer, or rural small business to conduct a feasibility study of a project for which assistance may be provided under this section.

''(2) LIMITATION.—The Secretary shall use not more than 10 percent of the funds made available to carry out this section to provide assistance described in paragraph (1).

''(3) CRITERIA.—The Secretary shall issue regulations establishing criteria for the receipt of assistance under this subsection.

''(4) AVOIDANCE OF DUPLICATIVE ASSISTANCE.—An farmer, rancher, other agricultural producer, or rural small business that receives assistance to carry out a feasibility study for a project under this subsection shall not be eligible for assistance to carry out a feasibility study for the project under any other provision of law.

''(f) SMALL ACTIVITIES.—

"(1) LIMITATION ON USE OF FUNDS.—The Secretary shall use not less than 15 percent of the funds made available under subsection (h) to provide grants for activities that have a cost of $50,000 or less.

"(2) EXCEPTION.—Beginning on the first day of the third quarter of a fiscal year, the limitation on the use of funds under paragraph (1) shall not apply to funds made available under subsection (h) for such fiscal year."; and

(7) by adding at the end the following new subsection:

"(h) FUNDING.—

"(1) IN GENERAL.—Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall make available to carry out this section—

"(A) $40,000,000 for fiscal year 2008;

"(B) $60,000,000 for fiscal year 2009;

"(C) $75,000,000 for fiscal year 2010;

"(D) $100,000,000 for fiscal year 2011; and

"(E) $150,000,000 for fiscal year 2012.

"(3) CONTINUATION OF OPERATIONS.—

"(A) FUNDING.—The Secretary shall continue to carry out this section at the rate of operation in effect on September 30, 2012, from sums in the Treasury not otherwise appropriated, through September 30, 2017.

"(B) AUTHORITY.—The program and authorities provided under this section shall continue in force and effect through September 30, 2017.".

SEC. 5007. BIOMASS RESEARCH AND DEVELOPMENT ACT OF 2000.

(a) RESTATEMENT OF ACT.—Section 9008 of the Farm Security and Rural Investment Act of 2002 (116 Stat. 486) is amended to read as follows:

"SEC. 9008. BIOMASS RESEARCH AND DEVELOPMENT ACT OF 2000.

"(a) SHORT TITLE.—This section may be cited as the 'Biomass Research and Development Act of 2000'.

"(b) FINDINGS.—Congress finds that—

"(1) conversion of biomass into biobased industrial products offers outstanding potential for benefit to the national interest through—

"(A) improved strategic security and balance of payments;

"(B) healthier rural economies;

"(C) improved environmental quality;

"(D) near-zero net greenhouse gas emissions;

"(E) technology export; and

"(F) sustainable resource supply;

"(2) the key technical challenges to be overcome in order for biobased industrial products to be cost-competitive are finding new technology and reducing the cost of technology for converting biomass into desired biobased industrial products;

"(3) biobased fuels have the clear potential to be sustainable, low cost, and high performance fuels that are compatible with both current and future transportation systems and provide near-zero net greenhouse gas emissions;

"(4) biobased chemicals have the clear potential for environmentally benign product life cycles;

"(5) biobased power can—

"(A) provide environmental benefits;

"(B) promote rural economic development; and

"(C) diversify energy resource options;

"(6) many biomass feedstocks suitable for industrial processing show the clear potential for sus-

tainable production, in some cases resulting in improved soil fertility and carbon sequestration;

"(7)(A) grain processing mills are biorefineries that produce a diversity of useful food, chemical, feed, and fuel products; and

"(B) technologies that result in further diversification of the range of value-added biobased industrial products can meet a key need for the grain processing industry;

"(8)(A) cellulosic feedstocks are attractive because of their low cost and widespread availability; and

"(B) research resulting in cost-effective technology to overcome the recalcitrance of cellulosic biomass would allow biorefineries to produce fuels and bulk chemicals on a very large scale, with a commensurately large realization of the benefit described in paragraph (1);

"(9) research into the fundamentals to understand important mechanisms of biomass conversion can be expected to accelerate the application and advancement of biomass processing technology by—

"(A) increasing the confidence and speed with which new technologies can be scaled up; and

"(B) giving rise to processing innovations based on new knowledge;

"(10) the added utility of biobased industrial products developed through improvements in processing technology would encourage the design of feedstocks that would meet future needs more effectively;

"(11) the creation of value-added biobased industrial products would create new jobs in construction, manufacturing, and distribution, as well as new higher-valued exports of products and technology;

"(12)(A) because of the relatively short-term time horizon characteristic of private sector investments, and because many benefits of biomass processing are in the national interest, it is appropriate for the Federal Government to provide precommercial investment in fundamental research and research-driven innovation in the biomass processing area; and

"(B) such an investment would provide a valuable complement to ongoing and past governmental support in the biomass processing area; and

"(13) several prominent studies, including studies by the President's Committee of Advisors on

Science and Technology and the National Research Council—

"(A) support the potential for large research-driven advances in technologies for production of biobased industrial products as well as associated benefits; and

"(B) document the need for a focused, integrated, and innovation-driven research effort to provide the appropriate progress in a timely manner.

"(c) DEFINITIONS.—In this section:

"(1) ADVISORY COMMITTEE.—The term 'Advisory Committee' means the Biomass Research and Development Technical Advisory Committee established by this section.

"(2) BIOBASED FUEL.—The term 'biobased fuel' means any transportation or heating fuel produced from biomass.

"(3) BIOBASED PRODUCT.—The term 'biobased product' means an industrial product (including chemicals, materials, and polymers) produced from biomass, or a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel.

"(4) BIOMASS.—The term 'biomass' means any organic matter that is available on a renewable or recurring basis, including agricultural crops and trees, wood and wood wastes and residues, plants (including aquatic plants), grasses, residues, fibers, and animal wastes, municipal wastes, and other waste materials.

"(5) BOARD.—The term 'Board' means the Biomass Research and Development Board established by this section.

"(6) DEMONSTRATION.—The term 'demonstration' means demonstration of technology in a pilot plant or semi-works scale facility.

"(7) INITIATIVE.—The term 'Initiative' means the Biomass Research and Development Initiative established under this section.

"(8) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given the term in section 102(a) of the Higher Education Act of 1965 (20 U.S.C. 1002(a)).

"(9) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given that term in section 2 of the Energy Policy Act of 2005.

"(10) POINT OF CONTACT.—The term 'point of contact' means a point of contact designated under this section.

"(d) COOPERATION AND COORDINATION IN BIOMASS RESEARCH AND DEVELOPMENT.—

"(1) IN GENERAL.—The Secretary of Agriculture and the Secretary of Energy shall cooperate with respect to, and coordinate, policies and procedures that promote research and development leading to the production of biobased fuels and biobased products.

"(2) POINTS OF CONTACT.—

"(A) IN GENERAL.—To coordinate research and development programs and activities relating to biobased fuels and biobased products that are carried out by their respective Departments—

"(i) the Secretary of Agriculture shall designate, as the point of contact for the Department of Agriculture, an officer of the Department of Agriculture appointed by the President to a position in the Department before the date of the designation, by and with the advice and consent of the Senate; and

"(ii) the Secretary of Energy shall designate, as the point of contact for the Department of Energy, an officer of the Department of Energy appointed by the President to a position in the Department before the date of the designation, by and with the advice and consent of the Senate.

"(B) DUTIES.—The points of contact shall jointly—

"(i) assist in arranging interlaboratory and site-specific supplemental agreements for research and development projects relating to biobased fuels and biobased products;

"(ii) serve as cochairpersons of the Board;

"(iii) administer the Initiative; and

"(iv) respond in writing to each recommendation of the Advisory Committee made under subsection (f).

"(e) BIOMASS RESEARCH AND DEVELOPMENT BOARD.—

"(1) ESTABLISHMENT.—There is established the Biomass Research and Development Board, which shall supersede the Interagency Council on

Biobased Products and Bioenergy established by Executive Order No. 13134, to coordinate programs within and among departments and agencies of the Federal Government for the purpose of promoting the use of biobased fuels and biobased products by—

"(A) maximizing the benefits deriving from Federal grants and assistance; and

"(B) bringing coherence to Federal strategic planning.

"(2) MEMBERSHIP.—The Board shall consist of—

"(A) the point of contact of the Department of Energy designated under subsection (d), who shall serve as cochairperson of the Board;

"(B) the point of contact of the Department of Agriculture designated under subsection (d), who shall serve as cochairperson of the Board;

"(C) a senior officer of each of the Department of the Interior, the Environmental Protection Agency, the National Science Foundation, and the Office of Science and Technology Policy, each of whom shall—

"(i) be appointed by the head of the respective agency; and

"(ii) have a rank that is equivalent to the rank of the points of contact; and

"(D) at the option of the Secretary of Agriculture and the Secretary of Energy, other members appointed by the Secretaries (after consultation with the members described in subparagraphs (A) through (C)).

"(3) DUTIES.—The Board shall—

"(A) coordinate research and development activities relating to biobased fuels and biobased products—

"(i) between the Department of Agriculture and the Department of Energy; and

"(ii) with other departments and agencies of the Federal Government;

"(B) provide recommendations to the points of contact concerning administration of this title;

"(C) ensure that—

"(i) solicitations are open and competitive with awards made annually; and

"(ii) objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest; and

"(D) ensure that the panel of scientific and technical peers assembled under subsection (g) to review proposals is composed predominantly of independent experts selected from outside the Departments of Agriculture and Energy.

"(4) FUNDING.—Each agency represented on the Board is encouraged to provide funds for any purpose under this section.

"(5) MEETINGS.—The Board shall meet at least quarterly to enable the Board to carry out the duties of the Board under paragraph (3).

"(f) BIOMASS RESEARCH AND DEVELOPMENT TECHNICAL ADVISORY COMMITTEE.—

"(1) ESTABLISHMENT.—There is established the Biomass Research and Development Technical Advisory Committee, which shall supersede the Advisory Committee on Biobased Products and Bioenergy established by Executive Order No. 13134—

"(A) to advise the Secretary of Energy, the Secretary of Agriculture, and the points of contact concerning—

"(i) the technical focus and direction of requests for proposals issued under the Initiative; and

"(ii) procedures for reviewing and evaluating the proposals;

"(B) to facilitate consultations and partnerships among Federal and State agencies, agricultural producers, industry, consumers, the research community, and other interested groups to carry out program activities relating to the Initiative; and

"(C) to evaluate and perform strategic planning on program activities relating to the Initiative.

"(2) MEMBERSHIP.—

"(A) IN GENERAL.—The Advisory Committee shall consist of—

"(i) an individual affiliated with the biofuels industry;

"(ii) an individual affiliated with the biobased industrial and commercial products industry;

"(iii) an individual affiliated with an institution of higher education who has expertise in biobased fuels and biobased products;

"(iv) two prominent engineers or scientists from government or academia who have expertise in biobased fuels and biobased products;

"(v) an individual affiliated with a commodity trade association;

"(vi) 2 individuals affiliated with an environmental or conservation organization;

"(vii) an individual associated with State government who has expertise in biobased fuels and biobased products;

"(viii) an individual with expertise in energy and environmental analysis;

"(ix) an individual with expertise in the economics of biobased fuels and biobased products;

"(x) an individual with expertise in agricultural economics; and

"(xi) at the option of the points of contact, other members.

"(B) APPOINTMENT.—The members of the Advisory Committee shall be appointed by the points of contact.

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

"(A) advise the points of contact with respect to the Initiative; and

"(B) evaluate whether, and make recommendations in writing to the Board to ensure that—

"(i) funds authorized for the Initiative are distributed and used in a manner that is consistent with the objectives, purposes, and considerations of the Initiative;

"(ii) solicitations are open and competitive with awards made annually and that objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest;

"(iii) the points of contact are funding proposals under this title that are selected on the basis of merit, as determined by an independent panel of scientific and technical peers predominantly from outside the

Departments of Agriculture and Energy; and

"(iv) activities under this section are carried out in accordance with this section.

"(4) COORDINATION.—To avoid duplication of effort, the Advisory Committee shall coordinate its activities with those of other Federal advisory committees working in related areas.

"(5) MEETINGS.—The Advisory Committee shall meet at least quarterly to enable the Advisory Committee to carry out the duties of the Advisory Committee.

"(6) TERMS.—Members of the Advisory Committee shall be appointed for a term of 3 years, except that—

"(A) one-third of the members initially appointed shall be appointed for a term of 1 year; and

"(B) one-third of the members initially appointed shall be appointed for a term of 2 years.

"(g) BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE.—

"(1) IN GENERAL.—The Secretary of Agriculture and the Secretary of Energy, acting through

1 their respective points of contact and in consultation
2 with the Board, shall establish and carry out a Bio-
3 mass Research and Development Initiative under
4 which competitively awarded grants, contracts, and
5 financial assistance are provided to, or entered into
6 with, eligible entities to carry out research on, and
7 development and demonstration of, biobased fuels
8 and biobased products, and the methods, practices
9 and technologies, for their production.
10 ''(2) OBJECTIVES.—The objectives of the Initia-
11 tive are to develop—
12 ''(A) technologies and processes necessary
13 for abundant commercial production of biobased
14 fuels at prices competitive with fossil fuels;
15 ''(B) high-value biobased products—
16 ''(i) to enhance the economic viability
17 of biobased fuels and power; and
18 ''(ii) as substitutes for petroleum-
19 based feedstocks and products; and
20 ''(C) a diversity of sustainable domestic
21 sources of biomass for conversion to biobased
22 fuels and biobased products.
23 ''(3) PURPOSES.—The purposes of the Initiative
24 are—

"(A) to increase the energy security of the United States;

"(B) to create jobs and enhance the economic development of the rural economy;

"(C) to enhance the environment and public health; and

"(D) to diversify markets for raw agricultural and forestry products.

"(4) TECHNICAL AREAS.—To advance the objectives and purposes of the Initiative, the Secretary of Agriculture and the Secretary of Energy, in consultation with the Administrator of the Environmental Protection Agency and heads of other appropriate departments and agencies (referred to in this subsection as the 'Secretaries'), shall direct research and development toward—

"(A) feedstock production through the development of crops and cropping systems relevant to production of raw materials for conversion to biobased fuels and biobased products, including—

"(i) development of advanced and dedicated crops with desired features, including enhanced productivity, broader site

range, low requirements for chemical inputs, and enhanced processing;

"(ii) advanced crop production methods to achieve the features described in clause (i);

"(iii) feedstock harvest, handling, transport, and storage; and

"(iv) strategies for integrating feedstock production into existing managed land;

"(B) overcoming recalcitrance of cellulosic biomass through developing technologies for converting cellulosic biomass into intermediates that can subsequently be converted into biobased fuels and biobased products, including—

"(i) pretreatment in combination with enzymatic or microbial hydrolysis; and

"(ii) thermochemical approaches, including gasification and pyrolysis;

"(C) product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogenerated power) that eventually

can increase the feasibility of fuel production in a biorefinery, including—

"(i) catalytic processing, including thermochemical fuel production;

"(ii) metabolic engineering, enzyme engineering, and fermentation systems for biological production of desired products or cogeneration of power;

"(iii) product recovery;

"(iv) power production technologies; and

"(v) integration into existing biomass processing facilities, including starch ethanol plants, sugar processing or refining plants, paper mills, and power plants; and

"(D) analysis that provides strategic guidance for the application of biomass technologies in accordance with realization of improved sustainability and environmental quality, cost effectiveness, security, and rural economic development, usually featuring system-wide approaches.

"(5) ADDITIONAL CONSIDERATIONS.—Within the technical areas described in paragraph (4), and in addition to advancing the purposes described in

paragraph (3) and the objectives described in paragraph (2), the Secretaries shall support research and development—

"(A) to create continuously expanding opportunities for participants in existing biofuels production by seeking synergies and continuity with current technologies and practices, such as the use of dried distillers grains as a bridge feedstock;

"(B) to maximize the environmental, economic, and social benefits of production of biobased fuels and biobased products on a large scale through life-cycle economic and environmental analysis and other means; and

"(C) to assess the potential of Federal land and land management programs as feedstock resources for biobased fuels and biobased products, consistent with the integrity of soil and water resources and with other environmental considerations.

"(6) ELIGIBLE ENTITIES.—To be eligible for a grant, contract, or assistance under this subsection, an applicant shall be—

"(A) an institution of higher education;

"(B) a National Laboratory;

"(C) a Federal research agency;

"(D) a State research agency;

"(E) a private sector entity;

"(F) a nonprofit organization; or

"(G) a consortium of two or more entities described in subparagraphs (A) through (F).

"(7) ADMINISTRATION.—

"(A) IN GENERAL.—After consultation with the Board, the points of contact shall—

"(i) publish annually one or more joint requests for proposals for grants, contracts, and assistance under this subsection;

"(ii) require that grants, contracts, and assistance under this section be awarded competitively, on the basis of merit, after the establishment of procedures that provide for scientific peer review by an independent panel of scientific and technical peers; and

"(iii) give some preference to applications that—

"(I) involve a consortia of experts from multiple institutions;

"(II) encourage the integration of disciplines and application of the best technical resources; and

"(III) increase the geographic diversity of demonstration projects.

"(B) DISTRIBUTION OF FUNDING BY TECHNICAL AREA.—Of the funds authorized to be appropriated for activities described in this subsection, funds shall be distributed for each of fiscal years 2007 through 2012 so as to achieve an approximate distribution of—

"(i) 20 percent of the funds to carry out activities for feedstock production under paragraph (4)(A);

"(ii) 45 percent of the funds to carry out activities for overcoming recalcitrance of cellulosic biomass under paragraph (4)(B);

"(iii) 30 percent of the funds to carry out activities for product diversification under paragraph (4)(C); and

"(iv) 5 percent of the funds to carry out activities for strategic guidance under paragraph (4)(D).

"(C) DISTRIBUTION OF FUNDING WITHIN EACH TECHNICAL AREA.—Within each technical area described in subparagraphs (A) through (C) of paragraph (4), funds shall be distributed for each of fiscal years 2007 through 2012 so as to achieve an approximate distribution of—

"(i) 15 percent of the funds for applied fundamentals;

"(ii) 35 percent of the funds for innovation; and

"(iii) 50 percent of the funds for demonstration.

"(D) MATCHING FUNDS.—

"(i) IN GENERAL.—A minimum 20 percent funding match shall be required for demonstration projects under this section.

"(ii) COMMERCIAL APPLICATIONS.—A minimum of 50 percent funding match shall be required for commercial application projects under this section.

"(E) TECHNOLOGY AND INFORMATION TRANSFER TO AGRICULTURAL USERS.—The Administrator of the Cooperative State Research, Education, and Extension Service and the Chief

of the Natural Resources Conservation Service shall ensure that applicable research results and technologies from the Initiative are adapted, made available, and disseminated through those services, as appropriate.

"(h) ADMINISTRATIVE SUPPORT AND FUNDS.—

"(1) IN GENERAL.—To the extent administrative support and funds are not provided by other agencies under paragraph (2)(b), the Secretary of Energy and the Secretary of Agriculture may provide such administrative support and funds of the Department of Energy and the Department of Agriculture to the Board and the Advisory Committee as are necessary to enable the Board and the Advisory Committee to carry out their duties under this section.

"(2) OTHER AGENCIES.—The heads of the agencies referred to in subsection (e)(2)(C), and the other members appointed under subsection (e)(2)(D), may, and are encouraged to, provide administrative support and funds of their respective agencies to the Board and the Advisory Committee.

"(3) LIMITATION.—Not more than 4 percent of the amount appropriated for each fiscal year under

subsection (g)(6) may be used to pay the administrative costs of carrying out this section.

"(i) REPORTS.—

"(1) ANNUAL REPORTS.—For each fiscal year for which funds are made available to carry out this section, the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a detailed report on—

"(A) the status and progress of the Initiative, including a report from the Advisory Committee on whether funds appropriated for the Initiative have been distributed and used in a manner that—

"(i) is consistent with the objectives, purposes, and additional considerations described in paragraphs (2) through (5) of subsection (g);

"(ii) uses the set of criteria established in the initial report submitted under title III of the Agricultural Risk Protection Act of 2000;

"(iii) achieves the distribution of funds described in subparagraphs (B) and (C) of subsection (g)(7); and

"(iv) takes into account any recommendations that have been made by the Advisory Committee;

"(B) the general status of cooperation and research and development efforts carried out at each agency with respect to biobased fuels and biobased products, including a report from the Advisory Committee on whether the points of contact are funding proposals that are selected under subsection (g)(3)(B)(iii); and

"(C) the plans of the Secretary of Energy and the Secretary of Agriculture for addressing concerns raised in the report, including concerns raised by the Advisory Committee.

"(2) UPDATES.—The Secretary and the Secretary of Energy shall update the Vision and Roadmap documents prepared for Federal biomass research and development activities.

"(j) FUNDING.—

"(1) IN GENERAL.—Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall make available to carry out this section—

"(A) $18,000,000 for fiscal year 2008;

"(B) $28,000,000 for fiscal year 2009;

"(C) $40,000,000 for fiscal year 2010;

"(D) $50,000,000 for fiscal year 2011; and

"(E) $100,000,000 for fiscal year 2012.

"(2) CONTINUATION OF OPERATIONS.—

"(A) FUNDING.—The Secretary shall continue to carry out this section at the rate of operation in effect on September 30, 2012, from sums in the Treasury not otherwise appropriated, through September 30, 2017.

"(B) AUTHORITY.—The program and authorities provided under this section shall continue in force and effect through September 30, 2017.".

(b) REPEAL.—Title III of the Agricultural Risk Protection Act of 2000 (Public Law 106–224) is hereby repealed.

SEC. 5008. ADJUSTMENTS TO THE BIOENERGY PROGRAM.

Section 9010 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8108) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) in subparagraph (A), by striking "and";

(ii) in subparagraph (B), by striking the final period and inserting a semicolon; and

(iii) by adding at the end the following new subparagraphs:

''(C) production of heat and power at a biofuels plant;

''(D) biomass gasification;

''(E) hydrogen made from cellulosic commodities for fuel cells;

''(F) renewable diesel; and

''(G) such other items as the Secretary considers appropriate.'';

(B) by striking paragraph (3) and inserting the following:

''(3) ELIGIBLE FEEDSTOCK.—

''(A) IN GENERAL.—The term 'eligible feedstock' means—

''(i) any plant material grown or collected for the purpose of being converted to energy (including aquatic plants);

''(ii) any organic byproduct or residue from agriculture and forestry, including mill residues and pulping residues that can be converted into energy;

"(iii) any waste material that can be converted to energy and is derived from plant material, including—

"(I) wood waste and residue;

"(II) specialty crop waste, including waste derived from orchard trees, vineyard crops, and nut crops; or

"(III) other fruit and vegetable byproducts or residues; or

"(iv) animal waste and byproducts.

"(B) EXCLUSION.—The term 'eligible feedstock' does not include corn starch.";

(C) in paragraph (4), by striking "an eligible commodity" and inserting "eligible feedstock"; and

(D) by adding at the end the following new paragraph:

"(5) RENEWABLE DIESEL.—The term 'renewable diesel' means any type of biobased renewable fuel derived from plant or animal matter that may be used as a substitute for standard diesel fuel and meets the requirements of an appropriate American Society for Testing and Material standard. Such term does not include any fuel derived from coproc-

essing an eligible feedstock with a feedstock that is not biomass.'';

(2) in subsection (b)—

(A) in paragraph (1)—

(i) by striking ''The Secretary shall continue'' and all that follows through ''the Secretary makes'' and inserting ''The Secretary shall make''; and

(ii) by striking ''eligible commodities'' and inserting ''eligible feedstock'';

(B) in paragraph (2)(B), by striking ''eligible commodities'' and inserting ''eligible feedstock'';

(C) in paragraph (3), by striking subparagraphs (B) and (C) and inserting the following:

''(B) PRIORITY.—In making payments under this paragraph, the Secretary shall give priority to contracts by considering the factors referred to in section 9003(e)(2)(B).''; and

(D) by striking paragraph (6) and inserting the following:

''(6) LIMITATION.—The Secretary may limit the amount of payments that may be received by an eligible producer under this section as the Secretary considers appropriate.''; and

(3) by striking subsection (c) and inserting the following:

"(c) FUNDING.—

"(1) IN GENERAL.—Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall use to carry out this section—

"(A) $150,000,000 for fiscal year 2008;

"(B) $150,000,000 for fiscal year 2009;

"(C) $170,000,000 for fiscal year 2010;

"(D) $180,000,000 for fiscal year 2011; and

"(E) $286,000,000 for fiscal year 2012.

"(2) CONTINUATION OF OPERATIONS.—

"(A) FUNDING.—The Secretary shall continue to carry out this section at the rate of operation in effect on September 30, 2012, from sums in the Treasury not otherwise appropriated, through September 30, 2017.

"(B) AUTHORITY.—The program and authorities provided under this section shall continue in force and effect through September 30, 2017.".

SEC. 5009. RESEARCH, EXTENSION, AND EDUCATIONAL PROGRAMS ON BIOBASED ENERGY TECHNOLOGIES AND PRODUCTS.

Section 9011(j)(1)(C) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8109(j)(1)(C)) is amended by striking ''2010'' and inserting ''2012''.

SEC. 5010. ENERGY COUNCIL OF THE DEPARTMENT OF AGRICULTURE.

Title IX of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101 et seq.) is further amended by adding at the end the following new section:

''SEC. 9012. ENERGY COUNCIL OF THE DEPARTMENT OF AGRICULTURE.

''(a) IN GENERAL.—The Secretary of Agriculture shall establish an energy council in the Office of the Secretary (in this section referred to as the 'Council') to coordinate the energy policy of the Department of Agriculture and consult with other departments and agencies of the Federal Government.

''(b) MEMBERSHIP.—

''(1) IN GENERAL.—The Secretary shall appoint the members of the Council from among the staff of the agencies and mission areas of the Department of Agriculture with responsibilities relating to energy programs or policies.

"(2) CHAIR.—The chief economist and the Under Secretary for Rural Development of the Department of Agriculture shall serve as the Chairs of the Council.

"(c) DUTIES OF OFFICE OF ENERGY POLICY AND NEW USES.—The Office of Energy Policy and New Uses of the Department of Agriculture shall support the activities of the Council.".

SEC. 5011. FOREST BIOENERGY RESEARCH PROGRAM.

Title IX of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101 et seq.) is further amended by adding at the end the following new section:

"SEC. 9013. FOREST BIOENERGY RESEARCH PROGRAM.

"(a) IN GENERAL.—The Secretary of Agriculture, working through the Forest Service, in cooperation with other Federal agencies, land grant colleges and universities, and private entities, shall conduct a competitive research and development program to encourage new forest-to-energy technologies. The Secretary may use grants, cooperative agreements, and other methods to partner with cooperating entities on projects that the Secretary determines shall best promote new forest-to-energy technologies.

"(b) PRIORITY FOR PROJECT SELECTION.—The Secretary shall give priority to projects that—

"(1) develop technology and techniques to use low value forest materials, such as byproducts of forest health treatments and hazardous fuel reduction, for the production of energy;

"(2) develop processes for the conversion of cellulosic forest materials that integrate production of energy into existing manufacturing steams or in integrated forest biorefineries;

"(3) develop new transportation fuels that use forest materials as a feedstock for the production of such fuels; or

"(4) improve the of growth and yield of trees for the purpose of renewable energy and other forest product use.

"(c) FUNDING.—Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall make available to carry out this section—

"(1) $4,000,000 for fiscal year 2008;

"(2) $6,000,000 for fiscal year 2009;

"(3) $7,000,000 for fiscal year 2010;

"(4) $9,000,000 for fiscal year 2011; and

"(5) $10,000,000 for fiscal year 2012.".

SEC. 5012. FEEDSTOCK FLEXIBILITY PROGRAM FOR BIOENERGY PRODUCERS.

Title IX of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101 et seq.) is further amended by adding at the end the following new section:

"SEC. 9014. FEEDSTOCK FLEXIBILITY PROGRAM FOR BIOENERGY PRODUCERS.

"(a) DEFINITIONS.—In this section:

"(1) BIOENERGY.—The term 'bioenergy' means fuel grade ethanol and other biofuel.

"(2) BIOENERGY PRODUCER.—The term 'bioenergy producer' means a producer of bioenergy that uses an eligible commodity to produce bioenergy under this section.

"(3) ELIGIBLE COMMODITY.—The term 'eligible commodity' means a form of raw or refined sugar or in-process sugar that is eligible to be marketed in the United States for human consumption or to be used for the extraction of sugar for human consumption.

"(4) ELIGIBLE ENTITY.—The term 'eligible entity' means an entity located in the United States that markets an eligible commodity in the United States.

"(b) FEEDSTOCK FLEXIBILITY PROGRAM.—

"(1) IN GENERAL.—

"(A) PURCHASES AND SALES.—For each of fiscal years 2008 through 2012, the Secretary shall purchase eligible commodities from eligible entities and sell such commodities to bioenergy producers for the purpose of producing bioenergy in a manner that ensures that 156 of the Federal Agricultural Improvement and Reform Act (7 U.S.C. 7272) is operated at no cost to the Federal Government by avoiding forfeitures to the Commodity Credit Corporation.

"(B) COMPETITIVE PROCEDURES.—In carrying out the purchases and sales required under subparagraph (A), the Secretary shall, to the maximum extent practicable, use competitive procedures, including the receiving, offering, and accepting of bids, when entering into contracts with eligible entities and bioenergy producers, provided that such procedures are consistent with the purposes of subparagraph (A).

"(C) LIMITATION.—The purchase and sale of eligible commodities under subparagraph (A) shall only be made in fiscal years in which such purchases and sales are necessary to ensure

that the program authorized under section 156 of the Federal Agriculture Improvement and Reform Act (7 U.S.C. 7272) is operated at no cost to the Federal Government by avoiding forfeitures to the Commodity Credit Corporation.

"(2) NOTICE.—

"(A) IN GENERAL.—Not later than September 1, 2007, and each September 1 thereafter through fiscal year 2011, the Secretary shall provide notice to eligible entities and bioenergy producers of the quantity of eligible commodities that shall be made available for purchase and sale for the subsequent fiscal year under this section.

"(B) REESTIMATES.—Not later than the first day of each of the second through fourth quarters of each of fiscal years 2008 through 2012, the Secretary shall reestimate the quantity of eligible commodities determined under subparagraph (A), and provide notice and make purchases and sales based on such reestimates.

"(3) COMMODITY CREDIT CORPORATION INVENTORY.—To the extent that an eligible commodity is owned and held in inventory by the Commodity Credit Corporation (accumulated pursuant to the

program authorized under section 156 of the Federal Agriculture Improvement and Reform Act (7 U.S.C. 7272)), the Secretary shall sell such commodity to bioenergy producers under this section.

"(4) TRANSFER RULE; STORAGE FEES.—

"(A) GENERAL TRANSFER RULE.—Except as provided in subparagraph (C), the Secretary shall ensure that bioenergy producers that purchase eligible commodities pursuant to this subsection take possession of such commodities within 30 calendar days of the date of such purchase from the Commodity Credit Corporation.

"(B) PAYMENT OF STORAGE FEES PROHIBITED.—

"(i) IN GENERAL.—The Secretary shall, to the greatest extent practicable, carry out this subsection in a manner that ensures no storage fees are paid by the Commodity Credit Corporation in the administration of this subsection.

"(ii) EXCEPTION.—Clause (i) shall not apply with respect to any commodities owned and held in inventory by the Commodity Credit Corporation (accumulated

pursuant to the program authorized under section 156 of the Federal Agriculture Improvement and Reform Act (7 U.S.C. 7272)).

"(C) OPTION TO PREVENT STORAGE FEES.—

"(i) IN GENERAL.—The Secretary may enter into contracts with bioenergy producers to sell eligible commodities to such producers prior in time to entering into contracts with eligible entities to purchase such commodities to be used to satisfy the contracts entered into with the bioenergy producers.

"(ii) SPECIAL TRANSFER RULE.—If the Secretary makes a sale and purchase referred to in clause (i), the Secretary shall ensure that the bioenergy producer that purchased eligible commodities takes possession of such commodities within 30 calendar days of the date the Commodity Credit Corporation purchases such commodities.

"(5) RELATION TO OTHER LAWS.—If sugar that is subject to a marketing allotment under part

VII of subtitle B of title III of the Agricultural Adjustment Act of 1938 (7 U.S.C. 1359aa et seq.) is the subject of a payment under this section, such sugar shall be considered marketed and shall count against a processor's allocation of an allotment under such part, as applicable.

"(6) FUNDING.—The Secretary shall use the funds, facilities, and authorities of the Commodity Credit Corporation, including the use of such sums as are necessary, to carry out this section.".

TITLE VI—CARBON-NEUTRAL GOVERNMENT

SEC. 6001. SHORT TITLE.

This title may be cited as the "Carbon-Neutral Government Act of 2007".

SEC. 6002. FINDINGS.

The Congress finds the following:

(1) The harms associated with global warming are serious and well recognized. These include the global retreat of mountain glaciers, reduction in snow cover extent, the earlier spring melting of rivers and lakes, the accelerated rate of rise of sea levels during the 20th century relative to the past few thousand years, and increased intensity of hurricanes and typhoons.

(2) The risks associated with a global mean surface temperature increase above 2° C (3.6° F) above preindustrial temperature are grave. According to the Intergovernmental Panel on Climate Change, such temperature increases would increase the severity of ongoing alterations of terrestrial and marine environments, with potentially catastrophic results. Ongoing and projected effects include more prevalent droughts in dry regions, an increase in the spread of disease, a significant reduction in water storage in winter snowpack in mountainous regions with direct and important economic consequences, a precipitous rise in sea levels by the end of the century, the potential devastation of coastal communities, severe and irreversible changes to natural ecosystems such as the bleaching and destruction of much of the world's coral, and the potential extinction of 30 percent of all living species.

(3) That these climate change effects and risks of future effects are widely shared does not minimize the adverse affects individual persons have suffered, will suffer, and are at risk of suffering because of global warming.

(4) That some of the adverse and potentially catastrophic effects of global warming are presently

at risk of occurring and not a certainty does not negate the harm persons suffer from actions that increase the likelihood, extent, and severity of such future impacts.

(5) To preserve the ability to stabilize atmospheric greenhouse gas concentrations at levels likely to protect against a temperature rise above 2° C (3.6° F) and maintain the likelihood of avoiding catastrophic global warming will require reductions of greenhouse gas emissions of 50 percent to 85 percent globally.

(6) Achieving such reductions will require a multitude of actions across the global economy that may each address a relatively minute quantity of emissions, but will be cumulatively significant.

(7) With only 5 percent of the world population, the United States emits approximately 20 percent of the world's total greenhouse gas emissions, and must be a leader in addressing global warming.

(8) The United States Government is the largest energy consumer in the United States and is responsible for roughly 100,000,000 metric tons of CO2-equivalent emissions annually.

(9) A reduction in greenhouse gas emissions by Federal agencies would slow the increase of global

emissions, thereby slowing the increase of global warming and the exacerbation of the risks associated with global warming. In addition, Federal action would accelerate the pace of development and adoption of technologies that will be critical to addressing global warming in the United States and worldwide.

(10) A failure by any Federal agency to comply with the provisions of this title requiring reductions in its greenhouse gas emissions would exacerbate the pace, extent, and risks of global warming, causing harms beyond what would otherwise occur. The incremental emissions from a Federal agency's failure to comply with this title create a harm, which is the incremental exacerbation of the adverse effects and risks of global warming. Although the emissions increments involved could be relatively small, such a failure allowing incrementally greater emissions would injure all United States citizens.

(11) Improved management of Government operations, including acquisitions and procurement and operation of Government facilities, can maximize the use of existing energy efficiency and renewable energy technologies to reduce global warming pollution, while saving taxpayers' money, reducing our dependence on oil, enhancing national security, cleaning the

air, and protecting pristine places from drilling and mining.

(12) Enhancing the accountability and transparency of Government operations through setting milestones for agency activities, planning, measuring results, tracking results over time, and public reporting can improve Government management and make Government operations more efficient and cost effective.

Subtitle A—Federal Government Inventory and Management of Greenhouse Gas Emissions

SEC. 6101. INVENTORY OF FEDERAL GOVERNMENT GREENHOUSE GAS EMISSIONS.

(a) IN GENERAL.—Each agency shall, in accordance with the guidance issued under subsection (b), annually inventory and report its greenhouse gas emissions for the preceding fiscal year. Each such inventory and report shall indicate as discrete categories—

(1) any direct emission of greenhouse gas as a result of an activity of the agency;

(2) the quantity of indirect emissions of greenhouse gases attributable to the generation of electricity used by the agency and commercial air travel by agency personnel; and

(3) the quantity of emissions of greenhouse gases associated with the work performed for the agency by Federal contractors, comprising direct emissions and indirect emissions associated with electricity used by, and commercial air travel by, such contractors.

(b) GUIDANCE; ASSISTANCE.—Not later than 3 months after the date of the enactment of this Act, the Administrator shall issue guidance for agencies for conducting inventories under this section and reporting under section 6102. Such guidance shall establish inventory and reporting procedures that are at least as rigorous as the inventory procedures established under the Environmental Protection Agency's Climate Leaders program and shall define the scope of the inventories of direct emissions described in subsection (a)(1) to be complete and consistent with the national obligation for reporting inventories under the United Nations Framework Convention on Climate Change. The Administrator shall provide assistance to agencies in preparing their inventories.

(c) INITIAL INVENTORY BY AGENCIES.—

(1) SUBMISSION.—Not later than 1 year after the date of the enactment of this Act, each agency shall submit to the Administrator and make publicly available on the agency's website an initial inventory

of the agency's greenhouse gas emissions for the preceding fiscal year.

(2) CERTIFICATION.—Not later than 6 months after an agency submits an initial inventory under paragraph (1), the Administrator shall review the inventory for compliance with the guidance issued under subsection (b) and—

(A) certify that the inventory is technically valid; or

(B) decline to certify the inventory and provide an explanation of the actions or revisions that are necessary for the inventory to be certified under subparagraph (A).

(3) REVISION.—If the Administrator declines to certify the inventory of an agency under paragraph (2)(B), the agency shall submit to the Administrator and make publicly available on the agency's website a revised inventory not later than 6 months after the date on which the Administrator provides the agency with the explanation required by such paragraph.

(d) NET GREENHOUSE GASES FROM FEDERAL LANDS.—Beginning not later than 2 years after the date of enactment of this Act, the Secretary of the Interior and the Secretary of Agriculture shall include as a discrete category in any inventory under this section the net biological

sequestration or emission of greenhouse gases related to human activities and associated with land managed by the Bureau of Land Management or the Forest Service. In developing such estimates of the net biological sequestration or emission of greenhouse gases, the Secretary of the Interior and the Secretary of Agriculture shall take into consideration the results of any available related assessments performed by the Secretary of the Interior. Such net biological sequestration or emissions of greenhouse gases shall not be considered for the purposes of setting or measuring progress toward targets under section 6102. For the purposes of this subsection, the net biological sequestration or emission of greenhouse gases refers to the net sequestration or emissions associated with uptake and release of greenhouse gases from soil, vegetation, and dead organic matter.

SEC. 6102. MANAGEMENT OF FEDERAL GOVERNMENT GREENHOUSE GAS EMISSIONS.

(a) EMISSION REDUCTION TARGETS.—Not later than 18 months after the date of the enactment of this Act, the Administrator shall promulgate annual reduction targets for the total quantity of greenhouse gas emissions described in section 6101(a), expressed as carbon dioxide equivalents, of all agencies, taken collectively, for each of fiscal years 2010 through 2050.

(b) GOALS.—The targets promulgated under subsection (a) shall be calculated so as—

(1) to prevent the total quantity of greenhouse gas emissions of all agencies in fiscal year 2011 and each subsequent fiscal year from exceeding the total quantity of such emissions in fiscal year 2010; and

(2) to reduce such greenhouse gas emissions as rapidly as possible, but at a minimum by a quantity equal to 2 percent of projected fiscal year 2010 emissions each fiscal year, so as to achieve zero net annual greenhouse gas emissions from the agencies by fiscal year 2050.

(c) PROPORTIONATE SHARE.—Each agency shall limit the quantity of its greenhouse gas emissions described in section 6101(a) to its proportionate share so as to enable the agencies to achieve the targets promulgated under subsection (a). The Administrator shall promulgate annual reduction targets to be met by each agency to comply with this subsection, after consultation with the agencies and taking into account changes in agency size, structure, and mission over time.

(d) AGENCY PLANS FOR MANAGING EMISSIONS.—

(1) SUBMISSION.—Not later than 2 years after the date of the enactment of this Act, each agency shall develop, submit to the Administrator, and

make publicly available on the agency's website a plan for achieving the annual reduction targets applicable to such agency under this section through fiscal year 2020. Not later than 2 years before the 10-year period beginning in 2021 and each subsequent 10-year period, the agency shall develop, submit to the Administrator, and make publicly available an updated plan for achieving such targets for the respective period. Each plan developed under this paragraph shall—

(A) identify the specific actions to be taken by the agency; and

(B) estimate the quantity of reductions of greenhouse gas emissions to be achieved through each such action.

(2) CERTIFICATION.—Not later than 6 months after an agency submits a plan under paragraph (1), the Administrator shall—

(A) certify that the plan is technically sound and, if implemented, is expected to limit the quantity of the agency's greenhouse gas emissions to its proportionate share under subsection (c); or

(B) decline to certify the plan and provide an explanation of the revisions that are nec-

essary for the plan to be certified under subparagraph (A).

(3) REVISION.—If the Administrator declines to certify the plan of an agency under paragraph (2), the agency shall submit to the Administrator and make publicly available on the agency's website a revised plan not later than 6 months after the date on which the Administrator provides the agency with the explanation required by paragraph (2)(B).

(e) EMISSIONS MANAGEMENT.—

(1) REQUIREMENT.—Each agency shall implement each provision in its plan under subsection (d) to manage its greenhouse gas emissions to meet the annual reduction targets applicable to such agency under this section. If—

(A) an agency has met its applicable reduction target for the most recent year; and

(B) the agency demonstrates that it is projected to meet such targets for future years without implementing a provision or provisions included in its plan,

the agency may revise its plan, subject to subsection (d)(2), to defer implementation of such plan provisions until the date that implementation is needed to meet the agency's applicable targets.

(2) REVISION OF PLAN.—If any agency fails to meet such targets for a fiscal year, as indicated by the inventory and report prepared by the agency for such fiscal year, the agency shall submit to the Administrator and make publicly available on the agency's website a revised plan under subsection (d) not later than March 31 of the following fiscal year. The Administrator shall certify or decline to certify the revised plan in accordance with subsection (d)(2) not later than 3 months after receipt of the revised plan.

(3) OFFSETS.—

(A) PROPOSAL.—If no national mandatory economy-wide cap-and-trade program for greenhouse gases has been enacted by fiscal year 2010, the Administrator shall develop and submit to the Congress by 2011 a proposal to allow agencies to meet the annual reduction targets applicable to such agencies under this section in part through emissions offsets, beginning in fiscal year 2015.

(B) CONTENTS.—The proposal developed under subparagraph (A) shall ensure that emissions offsets are—

(i) real, surplus, verifiable, permanent, and enforceable; and

(ii) additional for both regulatory and financial purposes (such that the generator of the offset is not receiving credit or compensation for the offset in another regulatory or market context).

(C) RULEMAKING.—If by 2012 the Congress has not enacted a statute for the express purpose of codifying the proposal developed under subparagraph (A) or an alternative to such proposal, the Administrator shall implement the proposal through rulemaking.

(4) EXEMPTIONS.—The President may exempt an agency from complying with the emissions target established for that year under subsection (c) if the President determines it to be in the paramount interest of the United States to do so. The agency shall, to the greatest extent practicable, continue to implement the provisions in the agency's plan. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods of not more than one year upon the President's making a new determination.

(f) STUDIES ON FEDERAL LANDS.—The Forest Service, the Bureau of Land Management, the National Park

Service, and the United States Fish and Wildlife Service shall—

(1) within 3 years after the date of the enactment of this Act, conduct studies of the opportunities for management strategies, and identify those management strategies with the greatest potential, to—

(A) enhance net biological sequestration of greenhouse gases on Federal lands they manage while avoiding harmful effects on other environmental values; and

(B) reduce negative impacts of global warming on biodiversity, water supplies, forest health, biological sequestration and storage, and related values;

(2) within 4 years after the date of the enactment of this Act, study the results that could be achieved through applying management strategies identified as having the greatest potential to achieve the benefits described in paragraph (1) by implementing field experiments on discrete portions of selected land management units in different parts of the Nation to test such strategies; and

(3) report to the Congress on the results of the studies.

(g) STUDY ON URBAN AND WILDLAND-URBAN FORESTRY PROGRAMS.—Within 2 years of the date of enactment of this Act, the Forest Service, in consultation with appropriate State and local agencies, shall conduct a study of the opportunities of urban and wildland-urban interface forestry programs to enhance net biological sequestration of greenhouse gases and achieve other benefits.

(h) REPORTING.—

(1) REPORTS BY AGENCIES.—Not later than December 31 each fiscal year, each agency shall submit to the Administrator and make publicly available on the agency's website a report on the agency's implementation of its plan required by subsection (d) for the preceding fiscal year, including the inventory of greenhouse gas emissions of the agency during such fiscal year.

(2) ANNUAL REPORT TO CONGRESS.—The Administrator shall review each report submitted under paragraph (1) for technical validity and compile such reports in an annual report on the Federal Government's progress toward carbon neutrality. The Administrator shall submit such annual report to the Committee on Oversight and Government Reform of the House of Representatives and the Committee on Governmental Affairs of the Senate and

make such annual report publicly available on the Environmental Protection Agency's website.

(3) ELECTRONIC SUBMISSION.—In complying with any requirement of this subtitle for submission of inventories, plans, or reports, an agency shall use electronic reporting in lieu of paper copy reports.

SEC. 6103. PILOT PROJECT FOR PURCHASE OF OFFSETS AND CERTIFICATES.

(a) GAO STUDY.—No later than April 1, 2008, the Comptroller General of the United States shall issue the report requested by the Congress on May 17, 2007, regarding markets for greenhouse gas emissions offsets.

(b) PILOT PROJECT.—Executive agencies and legislative branch offices may purchase qualified greenhouse gas offsets and qualified renewable energy certificates in any open market transaction that complies with all applicable procurement rules and regulations.

(c) QUALIFIED GREENHOUSE GAS OFFSETS.—For purposes of this section, the term ''qualified greenhouse gas offset'' means a real, additional, verifiable, enforceable, and permanent domestic—

(1) reduction of greenhouse gas emissions; or

(2) sequestration of greenhouse gases.

(d) QUALIFIED RENEWABLE ENERGY CERTIFICATES.—For purposes of this section, the term ''qualified

1 renewable energy certificate'' means a certificate rep-
2 resenting a specific amount of energy generated by a re-
3 newable energy project that is real, additional, and
4 verifiable.

5 (e) GUIDANCE.—No later than September 30, 2008,
6 the Administrator shall issue guidelines, for Executive
7 agencies, establishing criteria for qualified greenhouse gas
8 offsets and qualified renewable energy certificates. Such
9 guidelines shall take into account the findings and rec-
10 ommendations of the report issued under subsection (a)
11 and shall—

12 (1) establish performance standards for green-
13 house gas offset projects that benchmark reliably ex-
14 pected greenhouse gas reductions from identified
15 categories of projects that reduce greenhouse gas
16 emissions or sequester carbon in accordance with
17 subsection (c); and

18 (2) establish criteria for qualified renewable en-
19 ergy certificates to ensure that energy generated is
20 renewable and is in accordance with subsection (d).

21 (f) REPORT.—The Comptroller General of the United
22 States shall evaluate the pilot program established by this
23 section, including identifying environmental and other
24 benefits of the program, as well as its financial costs and
25 any disadvantages associated with the program. No later

than April 1, 2011, the Comptroller General shall provide a report to the Committee on Oversight and Government Reform of the House of Representatives and the Committee on Homeland Security and Governmental Affairs of the Senate providing the details of the evaluation and any recommendations for improvement.

(g) ADDITIONAL DEFINITIONS.—In this section:

(1) Notwithstanding section 6106(3) of this Act, the term ''Executive agency'' has the meaning given to such term in section 105 of title 5, United States Code.

(2) The term ''renewable energy'' has the meaning given that term in section 203(b) of the Energy Policy Act of 2005 (42 U.S.C. 15852(b)(2)), except that energy generated from municipal solid waste shall not be renewable energy.

(h) AUTHORIZATION.—Of the amount of discretionary funds available to each Executive agency or legislative branch office for each of fiscal years 2009 and 2010, not more than 0.01 percent of such amount may be used for the purpose of carrying out this section. Such funding shall be in addition to any other funds available to the Executive agency or legislative branch office for such purpose.

(i) SUNSET CLAUSE.—This section ceases to be effective at the end of fiscal year 2010.

SEC. 6104. IMPACT ON AGENCY'S PRIMARY MISSION.

In implementing the requirements of this subtitle, each agency should adopt compliance strategies that are consistent with the agency's primary mission.

SEC. 6105. SAVINGS CLAUSE.

Nothing in this title or any amendment made by this title shall be interpreted to preempt or limit the authority of a State to take any action to address global warming.

SEC. 6106. DEFINITIONS.

In this subtitle:

(1) The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) The term ''carbon dioxide equivalent'' means, for each greenhouse gas, the quantity of the greenhouse gas that makes the same contribution to global warming as 1 metric ton of carbon dioxide, as determined by the Administrator, taking into account the global warming potentials published by the Intergovernmental Panel on Climate Change.

(3) The term ''agency'' has the meaning given to that term in section 551 of the National Energy Conservation Policy Act (42 U.S.C. 8259).

(4) The term ''greenhouse gas'' means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perfluorocarbons;

(F) sulfur hexafluoride; or

(G) any other anthropogenically-emitted gas that the Administrator, after notice and comment, determines contributes to global warming to a non-negligible degree.

SEC. 6107. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as may be necessary to implement this subtitle.

Subtitle B—Federal Government Energy Efficiency

SEC. 6201. FEDERAL VEHICLE FLEETS.

Section 303 of the Energy Policy Act of 1992 (42 U.S.C. 13212) is amended—

(1) by redesignating subsection (f) as subsection (g); and

(2) by inserting after subsection (e) the following new subsection:

''(f) VEHICLE EMISSION REQUIREMENTS.—

''(1) PROHIBITION.—

"(A) IN GENERAL.—No Federal agency shall acquire a light duty motor vehicle or medium duty passenger vehicle that is not a low greenhouse gas emitting vehicle.

"(B) SPECIAL RULE FOR VEHICLES PROVIDED BY FUNDS CONTAINED IN MEMBERS' REPRESENTATIONAL ALLOWANCE.—If any portion of a Members' Representational Allowance is used to provide any individual with a vehicle described in paragraph (1), including providing an individual with a vehicle under a long-term lease, the House of Representatives shall be considered to have acquired the vehicle for purposes of paragraph (1).

"(C) DEFINITIONS.—In this paragraph—

"(i) the term 'Federal agency' includes any office of the legislative branch; and

"(ii) the term 'Members' Representational Allowance' means the allowance described in section 101(a) of the House of Representatives Administrative Reform Technical Corrections Act (2 U.S.C. 57b(a)).

"(2) GUIDANCE.—Each year, the Administrator of the Environmental Protection Agency shall issue guidance identifying the makes and model numbers of vehicles that are low greenhouse gas emitting vehicles. In identifying such vehicles, the Administrator shall take into account the most stringent standards for vehicle greenhouse gas emissions applicable to and enforceable against motor vehicle manufacturers for vehicles sold anywhere in the United States. The Administrator shall not identify any vehicle as a low greenhouse gas emitting vehicle if the vehicle emits greenhouse gases at a higher rate than such standards allow for the manufacturer's fleet average grams per mile of carbon dioxide-equivalent emissions for that class of vehicle, taking into account any emissions allowances and adjustment factors such standards provide.

"(3) DEFINITION.—For purposes of this subsection, the term 'medium duty passenger vehicle' has the meaning given that term section 523.2 of title 49 of the Code of Federal Regulations.".

SEC. 6202. AGENCY ANALYSES FOR MOBILITY ACQUISITIONS.

(a) COST ESTIMATE REQUIREMENT.—Each Federal agency that owns, operates, maintains, or otherwise funds

infrastructure, assets, or personnel to provide delivery of fuel to its operations shall apply activity based cost accounting principles to estimate the fully burdened cost of fuel.

(b) USE OF COST ESTIMATE.—Each agency shall use the fully burdened cost of fuel, as estimated under subsection (a), in conducting analyses and making decisions regarding its activities that create a demand for energy. Such analyses and decisions shall include—

(1) the use of models, simulations, wargames, and other analytical tools to determine the types of energy consuming equipment that an agency needs to conduct its missions;

(2) life-cycle cost benefit analyses and other trade-off analyses for determining the cost effectiveness of measures that improve the energy efficiency of an agency's equipment and systems;

(3) analyses and decisions conducted or made by others for the agency; and

(4) procurement and acquisition source selection criteria, requests for proposals, and best value determinations.

(c) REVISION OF ANALYTICAL TOOLS.—If a Federal agency employs models, simulations, wargames, or other analytical tools that require substantial upgrades to enable

1 those tools to be used in compliance with this section, the
2 agency shall complete such necessary upgrades not later
3 than 4 years after the date of enactment of this Act.

4 (d) DEFINITION.—For purposes of this section, the
5 term ''fully burdened cost of fuel'' means the commodity
6 price for the fuel plus the total cost of all personnel and
7 assets required to move and, where applicable, protect, the
8 fuel from the point at which the fuel is received from the
9 commercial supplier to the point of use.

10 **SEC. 6203. FEDERAL PROCUREMENT OF ENERGY EFFI-**
11 **CIENT PRODUCTS.**

12 (a) AMENDMENTS.—Section 553 of the National En-
13 ergy Conservation Policy Act (42 U.S.C. 8259b) is amend-
14 ed—

15 (1) in subsection (b)(1), by inserting ''in a
16 product category covered by the Energy Star pro-
17 gram or the Federal Energy Management Program
18 for designated products'' after ''energy consuming
19 product''; and

20 (2) in subsection (c)—

21 (A) by inserting ''list in their catalogues,
22 represent as available, and'' after ''Logistics
23 Agency shall''; and

24 (B) by striking ''where the agency'' and in-
25 serting ''where the head of the agency''.

(b) CATALOGUE LISTING DEADLINE.—Not later than 9 months after the date of enactment of this Act, the General Services Administration and the Defense Logistics Agency shall ensure that the requirement in the amendment made under subsection (a)(2)(A) has been fully complied with.

SEC. 6204. FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS.

(a) STANDARDS.—Section 305(a)(3) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)) is amended by adding at the end the following new subparagraph:

''(D) Not later than 1 year after the date of enactment of the Carbon-Neutral Government Act of 2007, the Secretary shall establish, by rule, revised Federal building energy efficiency performance standards that require that:

''(i) For new Federal buildings and Federal buildings undergoing major renovations, with respect to which the Adminstrator of General Services is required to transmit a prospectus to Congress under section 3307 of title 40, United States Code, in the case of public buildings (as defined in section 3301 of title 40, United States Code), or of at least $2,500,000 in costs adjusted annually for inflation for other buildings:

"(I) The buildings shall be designed so that the fossil fuel-generated energy consumption of the buildings is reduced, as compared with such energy consumption by a similar building in fiscal year 2003 (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency), by the percentage specified in the following table:

"Fiscal Year	Percentage Reduction
2010	55
2015	65
2020	80
2025	90
2030	100.

"(II) Sustainable design principles shall be applied to the siting, design, and construction of such buildings. Not later than 60 days after the date of enactment of the Carbon-Neutral Government Act of 2007, the Secretary, in consultation with the Administrator of General Services, and in consultation with the Secretary of Defense for considerations relating to those facilities under the custody and control of the Department of Defense, shall identify a certification system and level for green buildings that the Secretary determines to be the most likely

to encourage a comprehensive and environmentally-sound approach to certification of green buildings. The identification of the certification system and level shall be based on the criteria specified in clause (ii) and shall achieve results at least comparable to the United States Green Building Council Leadership in Energy and Environmental Design silver level. Within 60 days of the completion of each study required by clause (iii), the Secretary, in consultation with the Administrator of General Services, and in consultation with the Secretary of Defense for considerations relating to those facilities under the custody and control of the Department of Defense, shall review and update the certification system and level, taking into account the conclusions of such study.

''(ii) In identifying the green building certification system and level, the Secretary shall take into consideration—

''(I) the ability and availability of assessors and auditors to independently verify the criteria and measurement of metrics at the scale necessary to implement this subparagraph;

"(II) the ability of the applicable certification organization to collect and reflect public comment;

"(III) the ability of the standard to be developed and revised through a consensus-based process;

"(IV) an evaluation of the robustness of the criteria for a high-performance green building, which shall give credit for promoting—

"(aa) efficient and sustainable use of water, energy, and other natural resources;

"(bb) use of renewable energy sources;

"(cc) improved indoor environmental quality through enhanced indoor air quality, thermal comfort, acoustics, day lighting, pollutant source control, and use of low-emission materials and building system controls; and

"(dd) such other criteria as the Secretary determines to be appropriate; and

"(V) national recognition within the building industry.

"(iii) At least once every five years, the Administrator of General Services shall conduct a study to evaluate and compare available third-party green

building certification systems and levels, taking into account the criteria listed in clause (ii).

''(iv) The Secretary may by rule allow Federal agencies to develop internal certification processes, using certified professionals, in lieu of certification by the certification entity identified under clause (i)(II). The Secretary shall include in any such rule guidelines to ensure that the certification process results in buildings meeting the applicable certification system and level identified under clause (i)(II). An agency employing an internal certification process must continue to obtain external certification by the certification entity identified under clause (i)(II) for at least 5 percent of the total number of buildings certified annually by the agency.

''(v) With respect to privatized military housing, the Secretary of Defense, after consultation with the Secretary may, through rulemaking, develop alternative criteria to those established by subclauses (I) and (II) of clause (i) that achieve an equivalent result in terms of energy savings, sustainable design, and green building performance.

''(vi) In addition to any use of water conservation technologies otherwise required by this section, water conservation technologies shall be applied to

the extent that the technologies are life-cycle cost-effective.''.

(b) DEFINITIONS.—Section 303(6) of the Energy Conservation and Production Act (42 U.S.C. 6832(6)) is amended by striking ''which is not legally subject to State or local building codes or similar requirements.'' and inserting ''. Such term shall include buildings built for the purpose of being leased by a Federal agency, and privatized military housing.''.

SEC. 6205. MANAGEMENT OF FEDERAL BUILDING EFFICIENCY.

(a) LARGE CAPITAL ENERGY INVESTMENTS.—Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is amended by adding at the end the following new subsection:

''(f) LARGE CAPITAL ENERGY INVESTMENTS.—Each Federal agency shall ensure that any large capital energy investment in an existing building that is not a major renovation but involves replacement of installed equipment, such as heating and cooling systems, or involves renovation, rehabilitation, expansion, or remodeling of existing space, employs the most energy efficient designs, systems, equipment, and controls that are life-cycle cost effective. Not later than 6 months after the date of enactment of the Carbon-Neutral Government Act of 2007, each Fed-

eral agency shall develop a process for reviewing each such large capital energy investment decision to ensure that the requirement of this subsection is met, and shall report to the Office of Management and Budget on the process established. Not later than one year after the date of enactment of the Carbon-Neutral Government Act of 2007, the Office of Management and Budget shall evaluate and report to Congress on each agency's compliance with this subsection.''.

(b) METERING.—Section 543(e)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(e)(1)) is amended by inserting ''By October 1, 2016, each agency shall also provide for equivalent metering of natural gas, steam, chilled water, and water, in accordance with guidelines established by the Secretary under paragraph (2).'' after ''buildings of the agency.''.

SEC. 6206. LEASING.

(a) IN GENERAL.—Except as provided in subsection (b), effective 3 years after the date of enactment of this Act, no Federal agency shall enter into a new contract to lease space in a building that has not earned the Energy Star label in the most recent year.

(b) EXCEPTION.—If—

(1) no space is available in such a building that meets an agency's functional requirements, including locational needs;

(2) the agency is proposing to remain in a building that the agency has occupied previously;

(3) the agency is proposing to lease a building of historical, architectural, or cultural significance, as defined in section 3306(a)(4) of title 40, United States Code, or space in such a building; or

(4) the lease is for no more than 10,000 gross square feet of space,

the agency may enter into a contract to lease space in a building that has not earned the Energy Star label in the most recent year if the lease contract includes provisions requiring that, prior to occupancy, or in the case of a contract described in paragraph (2) not later than 6 months after signing the contract, the space will be renovated for all energy efficiency improvements that would be cost effective over the life of the lease, including improvements in lighting, windows, and heating, ventilation, and air conditioning systems.

SEC. 6207. PROCUREMENT AND ACQUISITION OF ALTERNATIVE FUELS.

No Federal agency shall enter into a contract for procurement of an alternative or synthetic fuel, including a

fuel produced from non-conventional petroleum sources, for any mobility-related use, other than for research or testing, unless the contract specifies that the lifecycle greenhouse gas emissions associated with the production and combustion of the fuel supplied under the contract must, on an ongoing basis, be less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources.

SEC. 6208. CONTRACTS FOR RENEWABLE ENERGY FOR EXECUTIVE AGENCIES.

Section 501(b)(1) of title 40, United States Code, is amended—

(1) in subparagraph (B), by striking ''A contract'' and inserting ''Except as provided in subparagraph (C), a contract''; and

(2) by adding at the end the following new subparagraph:

''(C) RENEWABLE ENERGY CONTRACTS.—A contract for renewable energy may be made for a period of not more than 30 years. For the purposes of this subparagraph, the term 'renewable energy' has the meaning given that term in section 203(b) of the Energy Policy Act of 2005 (42 U.S.C. 15852(b)(2)), except that en-

ergy generated from municipal solid waste shall not be considered renewable energy.''.

SEC. 6209. GOVERNMENT EFFICIENCY STATUS REPORTS.

(a) IN GENERAL.—Each Federal agency subject to any of the requirements of this title and the amendments made by this title shall compile and submit to the Director of the Office of Management and Budget an annual Government efficiency status report on—

(1) compliance by the agency with each of the requirements of this title and the amendments made by this title;

(2) the status of the implementation by the agency of initiatives to improve energy efficiency, reduce energy costs, and reduce emissions of greenhouse gases; and

(3) savings to American taxpayers resulting from mandated improvements under this title and the amendments made by this title

(b) SUBMISSION.—Such report shall be submitted—

(1) to the Director at such time as the Director requires;

(2) in electronic, not paper, format; and

(3) consistent with related reporting requirements.

SEC. 6210. OMB GOVERNMENT EFFICIENCY REPORTS AND SCORECARDS.

(a) REPORTS.—Not later than April 1 of each year, the Director of the Office of Management and Budget shall submit an Annual Government Efficiency report to the Committee on Oversight and Government Reform of the House of Representatives and the Committee on Governmental Affairs of the Senate, which shall contain—

(1) a summary of the information reported by agencies under section 6209;

(2) an evaluation of the Government's overall progress toward achieving the goals of this title and the amendments made by this title; and

(3) recommendations for additional actions necessary to meet the goals of this title and the amendments made by this title.

(b) SCORECARDS.—The Office of Management and Budget shall include in any annual energy scorecard it is otherwise required to submit a description of each agency's compliance with the requirements of this title and the amendments made by this title.

SEC. 6211. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as may be necessary to implement this subtitle.

SEC. 6212. JUDICIAL REVIEW.

(a) FINAL AGENCY ACTION.—Any nondiscretionary act or duty under this title or any amendment made by this title is a final agency action for the purposes of judicial review under chapter 7 of title 5, United States Code.

(b) VENUE FOR CERTAIN ACTIONS.—The United States Court of Appeals for the District of Columbia Circuit shall have exclusive jurisdiction over any petition for review of action of the Administrator in promulgating any rule under subtitle A of this title.

(c) LIMITATIONS.—No action under chapter 7 of title 5, United States Code, may be commenced prior to 60 days after the date on which the plaintiff has given notice to the Federal agency concerned of the alleged violation of this title or any amendment made by this title.

(d) COMMON CLAIMS.—When civil actions arising under this title or any amendment made by this title are pending in the same court and involve one or more common questions of fact or common claims regarding the same alleged Federal agency failure or failures to act, the court may consolidate such claims into a single action for judicial review. When civil actions arising under this title or any amendment made by this title are pending in different districts and involve one or more common questions of fact or common claims regarding the same alleged Federal agency failure or failures to act, such actions may

be consolidated pursuant to section 1407 of title 28, United States Code.

(e) AGGRIEVED PERSONS.—A person shall be considered aggrieved within the meaning of this title or any amendment made by this title for purposes of obtaining judicial review under chapter 7 of title 5, United States Code, if the person alleges—

(1) harm attributable to a Federal agency's failure to reduce its greenhouse gas emissions in accordance with the requirements under this title or any amendment made by this title, or take other actions required under this title or any amendment made by this title; or

(2) a Federal agency's failure to collect and provide information to the public as required by this title or any amendment made by this title.

For purposes of this section, the term ''harm'' includes any effect of global warming, currently occurring or at risk of occurring, and the incremental exacerbation of any such effect or risk that is associated with relatively small increments of greenhouse gas emissions, even if the effect or risk is widely shared. An effect or risk associated with global warming is ''attributable'' to a Federal agency's failure to act as described in paragraph (1) if the failure to act results in larger emissions of greenhouse gases than

would have been emitted had the Federal agency followed the requirements of this title or any amendment made by this title, as any such incremental additional emissions will exacerbate the pace, extent, and risks of global warming.

(f) REMEDY.—

(1) IN GENERAL.—In addition to the remedies available under chapter 7 of title 5, United States Code, a court may provide the remedies specified in this subsection.

(2) PAYMENT.—In any civil action alleging a violation of this title, if the court finds that an agency has significantly violated this title in its failure to perform any nondiscretionary act or duty under this title or any amendment made by this title, the court may award a payment, payable by the United States Treasury, to be used for a beneficial mitigation project recommended by the plaintiff or to compensate the plaintiff for any impact from global warming suffered by the plaintiff. The total payment for all claims by all plaintiffs in any such action shall not exceed the amount provided in section 1332(b) of title 28, United States Code. A court may deny a second payment under this section if the court determines that the plaintiff has filed multiple separate actions that could reasonably have been

combined into a single action. No payment may be awarded under this paragraph for violations of an agency's obligation to collect or report information to the public. No court may award any payment under this paragraph in any given year if the cumulative payments awarded by courts under this paragraph in such year are equal to or greater than $1,500,000.

(3) COSTS.—A court may award costs of litigation to any substantially prevailing plaintiff or to any other plaintiff whenever the court determines such an award is appropriate. Such an award is appropriate when such litigation contributes to the Federal agency's compliance with this title or any amendment made by this title. Costs of litigation include reasonable attorney fees and expert fees.

(4) EXCLUSIVE REMEDY.—Notwithstanding any other provision of Federal law—

(A) no plaintiff who is awarded a payment under this subsection for a failure to perform a mandatory duty under this title or any amendment made by this title may be awarded a payment for such failure under any other Federal law; and

(B) no plaintiff may be awarded a payment under this subsection for a failure to perform a mandatory duty under this title or any amendment made by this title if the plaintiff has been awarded a payment for such failure under any other Federal law.

(g) NO STATE COURT ACTION.—No person may bring any action in State court alleging a violation of this title or any amendment made by this title.

(h) INAPPLICABILITY TO PROCUREMENT PROTESTS.—No action may be commenced under this section objecting to a solicitation by a Federal agency for bids or proposals for a proposed contract or to a proposed award or the award of a contract or any alleged violation of statute or regulation in connection with a procurement or a proposed procurement if such action may be brought by an interested party under section 1491(b)(1) of title 28, United States Code, or subchapter V of title 31, United States Code.

(i) DEFINITION.—In this section, the term ''person'' means a United States person. In the case of an individual, such term means a citizen or national of the United States.

Subtitle C—Telework Enhancement

SEC. 6301. SHORT TITLE.

This subtitle may be cited as the ''Telework Enhancement Act of 2007''.

SEC. 6302. FEDERAL GOVERNMENT TELEWORK REQUIREMENT.

(a) IN GENERAL.—

(1) ELIGIBILITY.—Within 1 year after the date of enactment of this Act, the head of each Executive agency shall establish a policy under which each employee of the agency, except as provided in subsection (b), shall be eligible to participate in telework.

(2) PARTICIPATION POLICY.—The policy shall ensure that eligible employees participate in telework to the maximum extent possible without diminishing employee performance or agency operations.

(b) INELIGIBLE EMPLOYEES.—Subsection (a)(1) does not apply to executive agency employees whose duties require the daily handling of national security or intelligence materials or daily on-site physical presence for activity such as necessary contact with special equipment or other activity that cannot be handled remotely or at an alternate worksite.

SEC. 6303. TRAINING AND MONITORING.

The head of each executive agency shall ensure that—

(1) telework training is incorporated in the agency's new employee orientation procedures;

(2) telework training is provided to managers and all new teleworkers; and

(3) periodic employee reviews are conducted for all employees to ascertain whether telework is appropriate for the employee's job description and the extent to which it is being utilized by the employee.

SEC. 6304. TELEWORK MANAGING EMPLOYEE.

(a) IN GENERAL.—The head of each executive agency shall appoint a full time senior level employee of the agency as the Telework Managing Officer. The Telework Managing Office shall be established within the office of the chief administrative officer or a comparable office with similar functions.

(b) DUTIES.—The Telework Managing Officer shall—

(1) serve as liaison between employees engaged in teleworking and their employing entity;

(2) ensure that the organization's telework policy is communicated effectively to employees;

(3) encourage all eligible employees to engage in telework to the maximum practicable extent con-

sistent with meeting performance requirements and maintaining operations;

(4) assist the head of the agency in the development and maintenance of agencywide telework policies;

(5) provide assistance and advice in labor-management interactions regarding telework;

(6) educate administrative units on telework policies, programs, and training courses;

(7) provide written notification to each employee of specific telework programs and the employee's eligibility for those programs;

(8) focus on expanding and monitoring agency telework programs;

(9) recommend and oversee telework-specific pilot programs for employees and managers, including tracking performance and monitoring activities;

(10) develop and administer a telework performance reporting system;

(11) promote and monitor agency and other resources necessary for effective teleworking;

(12) develop telework promotion and incentive programs; and

(13) assist the head of the agency in designating employees to telework to continue agency op-

erations in the event of a major disaster (as defined in section 102 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122)).

(c) REPORT.—The Telework Managing Officer shall submit a report to the head of the employing agency and the Comptroller General at least once every 12 months that includes a statement of the applicable telework policy, a description of measures in place to carry out the policy, and an analysis of the participation by employees of the entity in teleworking during the preceding 12-month period.

SEC. 6305. ANNUAL TELEWORK AGENCY RATING.

(a) IN GENERAL.—The Comptroller General shall establish a system for evaluating—

(1) the telework policy of each executive agency; and

(2) on an annual basis the participation in teleworking by their employees.

(b) REPORT.—The Comptroller General shall publish a report each year rating—

(1) the telework policy of each entity to which this subtitle applies;

(2) the degree of participation by employees of each such entity in teleworking during the 12-month period covered by the report;

(3) for each executive agency—

(A) the number of employees in the agency;

(B) the number of those employees who are eligible to telework;

(C) the number of employees who engage on a regular basis in teleworking; and

(D) the number of employees who engage on an occasional or sporadic basis (at least one day per month) in teleworking; and

(4) for each executive agency, an assessment of agency compliance with this subtitle.

SEC. 6306 DEFINITIONS.

In this subtitle:

(1) EMPLOYEE.—The term ''employee'' has the meaning given that term by section 8101(1) of title 5, United States Code.

(2) EXECUTIVE AGENCY.—The term ''Executive agency'' has the meaning given that term by section 105 of title 5, United States Code.

(3) TELEWORK.—The term ''telework'' means a work arrangement in which an employee regularly

performs officially assigned duties at home or other worksites geographically convenient to the residence of the employee that—

(A) reduces or eliminates the employee's commute between his or her residence and his or her place of employment; and

(B) occurs at least 2 business days per week in at least 48 weeks in a year.

TITLE VII—NATURAL RESOURCES COMMITTEE PROVISIONS

SEC. 7001. SHORT TITLE.

This title may be cited as the ''Energy Policy Reform and Revitalization Act of 2007''.

Subtitle A—Energy Policy Act of 2005 Reforms

SEC. 7101. FISCALLY RESPONSIBLE ENERGY AMENDMENTS.

(a) REQUIREMENT TO ESTABLISH COST RECOVERY FEE.—Section 365(i) of the Energy Policy Act of 2005 (Public Law 109–58; 42 U.S.C. 15924(i)) is amended to read as follows:

''(i) FEE FOR APPLICATIONS FOR PERMITS TO DRILL.—

''(1) REQUIREMENT TO ESTABLISH COST RECOVERY FEE.—The Secretary of the Interior shall

1 promulgate regulations to establish a cost recovery
2 fee for applications for a permit to drill for oil and
3 gas on Federal lands administered by the Secretary.
4 "(2) TEMPORARY FEE.—Until such time as a
5 fee is established by such regulations, the Secretary
6 shall charge a cost recovery fee of $1,700 for each
7 such application received on or after October 1,
8 2007.
9 "(3) DEPOSIT AND USE.—Amounts received by
10 the United States in the form of the fee established
11 under this subsection—
12 "(A) shall be available to the Secretary of
13 the Interior to administer permit processing;
14 and
15 "(B) shall be treated as offsetting re-
16 ceipts.".
17 (b) REPEAL OF BLM PERMIT PROCESSING IM-
18 PROVEMENT FUND.—
19 (1) REPEAL.—Section 35 of the Mineral Leas-
20 ing Act (30 U.S.C. 191) is amended by striking sub-
21 section (c).
22 (2) TREATMENT OF BALANCE.—Any balances
23 remaining in the BLM Permit Processing Improve-
24 ment Fund on the effective date of this subsection

shall be transferred to the general fund of the Treasury of the United States.

(3) EFFECTIVE DATE.—This subsection shall take effect on October 1, 2007.

SEC. 7102. EXTENSION OF DEADLINE FOR CONSIDERATION OF APPLICATIONS FOR PERMITS.

Subsection (p)(2) of section 17 of the Mineral Leasing Act (30 U.S.C. 226) is amended by striking ''30'' and inserting ''45''.

SEC. 7103. OIL SHALE AND TAR SANDS LEASING.

Section 369 of the Energy Policy Act of 2005 (42 U.S.C. 15927) is amended—

(1) in subsection (c), by striking ''not later than 180 days after the date of enactment of this Act,'';

(2) in subsection (c), by striking ''shall make'' and inserting ''may make'';

(3) in subsection (d)(1), by striking ''Not later than 18 months after the date of enactment of this Act, in'' and inserting ''In'';

(4) in subsection (d)(2)—

(A) in the heading by striking ''FINAL'' and inserting ''PROPOSED''; and

(B) in the text by striking ''final'' and inserting ''proposed'';

(5) in subsection (d)(2), by striking ''6'' and inserting ''12'';

(6) in subsection (d)(2) by inserting after the period ''The proposed regulations developed under this paragraph are to be open for public comment for no less than 120 days.'';

(7) by redesignating subsections (e) through (s) as subsections (g) through (u), and by inserting after subsection (d) the following:

''(e) OIL SHALE AND TAR SANDS LEASING AND DEVELOPMENT STRATEGY.—

''(1) GENERAL.—Not later than 6 months after the completion of the programmatic environmental impact statement under subsection (d), the Secretary shall prepare an oil shale and tar sands leasing and development strategy, in cooperation with the Secretary of Energy and the Administrator of the Environmental Protection Agency.

''(2) PURPOSE.—The purpose of the strategy developed under this subsection is to provide a framework for regulations that will allow for the sustainable and publicly acceptable large-scale development of oil shale within the Green River Formation and to provide a basis for decisions regarding Fed-

eral support for research and other activities to achieve that result.

"(3) CONTENTS.—The strategy shall include plans and programs for obtaining information required for determining the optimal methods, locations, amount, and timeframe for potential development on Federal lands within the Green River Formation. The strategy shall also include plans for conducting critical environmental and ecological research, high-payoff process improvement research, an assessment of carbon management options, and a large-scale demonstration of carbon dioxide sequestration in the general vicinity of the Piceance Basin.

"(f) ALTERNATIVE APPROACHES.—In developing the strategy under subsection (e), the Secretary shall, in cooperation with the Secretary of Energy and the Administrator of the Environmental Protection Agency, consult with industry and other interested persons regarding alternative approaches to providing access to Federal lands for early first-of-a-kind commercial facilities for extracting and processing oil shale and tar sands.";

(8) in subsection (g), as so redesignated, by striking "of the final regulation required by subsection (d)" and inserting "of final regulations issued under this section";

(9) in subsection (g), as so redesignated, by adding at the end the following: ''Compliance with the National Environmental Policy Act of 1969 is required on a site-by-site basis for all lands proposed to be leased under the commercial leasing program established in this subsection.''; and

(10) in subsection (i)(1)(B), as so redesignated, by striking ''subsection (e)'' and inserting ''subsection (g)''.

SEC. 7104. LIMITATION OF REBUTTABLE PRESUMPTION REGARDING APPLICATION OF CATEGORICAL EXCLUSION UNDER NEPA FOR OIL AND GAS EXPLORATION AND DEVELOPMENT ACTIVITIES.

Section 390 of the Energy Policy Act of 2005 (Public Law 109–58; 42 U.S.C. 15942) is amended by adding at the end the following:

''(c) ADHERENCE TO CEQ REGULATIONS.—In administering this section, the Secretary of the Interior in managing the public lands, and the Secretary of Agriculture in managing National Forest System lands, shall adhere to the regulations issued by the Council on Environmental Quality relating to categorical exclusions (40 CFR 1507.3 and 1508.4), as in effect on the date of enactment of this Act.''.

SEC. 7105. BEST MANAGEMENT PRACTICES.

Not later than 180 days after the date of enactment of this Act, the Secretary of the Interior, through the Bureau of Land Management, shall amend the best management practices guidelines for oil and gas development on Federal lands, to—

(1) require public review and comment prior to waiving any stipulation of an oil and gas lease for such lands, except in the case of an emergency; and

(2) create an incentive for oil and gas operators to adopt best management practices that minimize adverse impacts to wildlife habitat, by providing expedited permit review for any operator that commits to adhering to those practices without seeking waiver of such stipulations.

SEC. 7106. FEDERAL CONSISTENCY APPEALS.

(a) SHORT TITLE.—This section may be cited as the ''Federal Consistency Appeals Decision Refinement Act''.

(b) CLARIFICATION OF APPEAL DECISION TIME PERIODS AND INFORMATION REQUIREMENTS.—Section 319(b) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1465(b)) is amended—

(1) in paragraph (1), by striking ''160-day'' and inserting ''200-day'';

(2) in paragraph (3)(A)—

(A) by striking ''160-day'' and inserting ''200-day''; and

(B) by amending clause (ii) to read as follows:

''(ii) as the Secretary determines necessary to receive, on an expedited basis, any supplemental or clarifying information relevant to the consolidated record compiled by the lead Federal permitting agency to complete a consistency review under this title.''; and

(3) in paragraph (3)(B) by striking ''160-day'' and inserting ''200-day''.

Subtitle B—Federal Energy Public Accountability, Integrity, and Public Interest

CHAPTER 1—ACCOUNTABILITY AND INTEGRITY IN THE FEDERAL ENERGY PROGRAM

SEC. 7201. AUDITS.

(a) REQUIREMENT TO INCREASE THE NUMBER OF AUDITS.—The Secretary of the Interior shall ensure that by fiscal year 2009 the Minerals Management Service shall perform no less that 550 audits of oil and gas leases each fiscal year.

(b) STANDARDS.—Not later than 120 days after the date of enactment of this Act, the Secretary of the Interior shall issue regulations that require that all employees that conduct audits or compliance reviews must meet professional auditor qualifications that are consistent with the latest revision of the Government Auditing Standards published by the Government Accountability Office. Such regulations shall also ensure that all audits conducted by the Department of the Interior are performed in accordance with such standards.

SEC. 7202. FINES AND PENALTIES.

(a) SANCTIONS FOR VIOLATIONS RELATING TO FEDERAL OIL AND GAS ROYALTIES.—Section 109 of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1719) is amended to read as follows:

"CIVIL PENALTIES

"SEC. 109. (a) ROYALTY VIOLATIONS.—(1) No person shall—

"(A) after due notice of violation or after such violation has been reported under paragraph (3)(A), fail or refuse to comply with any requirement of any mineral leasing law or any regulation, order, lease, or permit under such a law;

"(B) fail or refuse to make any royalty payment in the amount or value required by any min-

eral leasing law or any regulation, order, or lease under such a law, with the intent to defraud;

"(C) fail or refuse to make any royalty payment by the date required by any mineral leasing law or any regulation, order, or lease under such a law, with the intent to defraud; or

"(D) prepare, maintain, or submit any false, inaccurate, or misleading report, notice, affidavit, record, data, or other written information or filing related to royalty payments that is required under any mineral leasing law or regulation issued under any mineral leasing law, with the intent to defraud.

"(2) A person who violates paragraph (1) shall be liable—

"(A) in the case of a violation of subparagraph (B) or (C) of paragraph (1) for an amount equal to 3 times the royalty the person fails or refuses to pay, plus interest on that trebled amount measured from the first date the royalty payment was due; and

"(B) in the case of any violation, for a civil penalty of—

"(i) except as provided in clause (ii), up to $25,000 per violation for each day the violation continues; or

"(ii) if the person failed or refused to make a payment of royalty owed in an amount less than $25,000, an amount equal to 150 percent of the royalty owed that was not paid;

"(3) Paragraph (2) shall not apply to a violation of paragraph (1) if the person who commits the violation, within 30 days of knowing of the violation—

"(A) reports the violation to the Secretary or a representative designated by the Secretary; and

"(B) corrects the violation.

"(b) LEASE ADMINISTRATION VIOLATIONS.—Any person who—

"(1) fails to notify the Secretary of—

"(A) any designation by the person under section 102(a); or

"(B) any other assignment of obligations or responsibilities of the person under a lease;

"(2) fails or refuses to permit—

"(A) lawful entry;

"(B) inspection, including any inspection authorized by section 108; or

"(C) audit, including any failure or refusal to promptly tender requested documents;

"(3) fails or refuses to comply with subsection 102(b)(3) (relating to notification regarding beginning or resumption of production); or

"(4) fails to correctly report and timely provide operations or financial records necessary for the Secretary or any authorized designee of the Secretary to accomplish lease management responsibilities,

shall be liable for a penalty of up to $10,000 per violation for each day such violation continues.

"(c) THEFT.—Any person who—

"(1) knowingly or willfully takes or removes, transports, uses or diverts any oil or gas from any lease site without having valid legal authority to do so; or

"(2) purchases, accepts, sells, transports, or conveys to another, any oil or gas knowing or having reason to know that such oil or gas was stolen or unlawfully removed or diverted,

shall be liable for a penalty of up to $25,000 per violation for each day such violation continues without correction.

"(d) ADMINISTRATIVE APPEAL.—(1) Any determination by the Secretary or a designee of the Secretary of the amount of any royalties or civil penalties owed under subsection (a), (b), or (c) shall be final, unless within 120 days after notification by the Secretary or designee the

person liable for such amount files an administrative appeal in accordance with regulations issued by the Secretary.

"(2) If a person files an administrative appeal pursuant to paragraph (1), the Secretary or designee shall make a final determination in accordance with the regulations referred to in paragraph (1).

"(e) DEDUCTION.—The amount of any penalty under this section, as finally determined may be deducted from any sums owing by the United States to the person charged.

"(f) COMPROMISE AND REDUCTION.—On a case-by-case basis the Secretary may compromise or reduce civil penalties under this section.

"(g) NOTICE.—Notice under this subsection (a) shall be by personal service by an authorized representative of the Secretary or by registered mail. Any person may, in the manner prescribed by the Secretary, designate a representative to receive any notice under this subsection.

"(h) RECORD OF DETERMINATION.—In determining the amount of such penalty, or whether it should be remitted or reduced, and in what amount, the Secretary shall state on the record the reasons for his determinations.

"(i) JUDICIAL REVIEW.—Any person who has requested a hearing in accordance with subsection (e) within

the time the Secretary has prescribed for such a hearing and who is aggrieved by a final order of the Secretary under this section may seek review of such order in the United States district court for the judicial district in which the violation allegedly took place. Review by the district court shall be de novo. Such an action shall be barred unless filed within 90 days after the Secretary's final order.

"(j) FAILURE TO PAY.—If any person fails to pay an assessment of a civil penalty under this Act—

"(1) after the order making the assessment has become a final order and if such person does not file a petition for judicial review of the order in accordance with subsection (j); or

"(2) after a court in an action brought under subsection (j) has entered a final judgment in favor of the Secretary,

the court shall have jurisdiction to award the amount assessed plus interest from the date of the expiration of the 90-day period referred to in subsection (j). Judgment by the court shall include an order to pay.

"(k) RELATIONSHIP TO MINERAL LEASING ACT.—No person shall be liable for a civil penalty under subsection (a) or (b) for failure to pay any rental for any

lease automatically terminated pursuant to section 31 of the Mineral Leasing Act.

"(l) TOLLING OF STATUTES OF LIMITATION.—(1) Any determination by the Secretary or a designee of the Secretary that a person has violated subsection (a), (b)(2), or (b)(4) shall toll any applicable statute of limitations for all oil and gas leases held or operated by such person, until the later of—

"(A) the date on which the person corrects the violation and certifies that all violations of a like nature have been corrected for all of the oil and gas leases held or operated by such person; or

"(B) the date a final, nonappealable order has been issued by the Secretary or a court of competent jurisdiction.

"(2) A person determined by the Secretary or a designee of the Secretary to have violated subsection (a), (b)(2), or (b)(4) shall maintain all records with respect to the person's oil and gas leases until the later of—

"(A) the date the Secretary releases the person from the obligation to maintain such records; and

"(B) the expiration of the period during which the records must be maintained under section 103(b).

"(m) STATE SHARING OF PENALTIES.—Amounts received by the United States in an action brought under section 3730 of title 31, United States Code, that arises from any underpayment of royalties owed to the United States under any lease shall be treated as royalties paid to the United States under that lease for purposes of the mineral leasing laws and the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l–4 et seq.).".

(b) SHARED CIVIL PENALTIES.—Section 206 of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1736) is amended—

(1) by inserting "trebled royalties or" after "50 per centum of any"; and

(2) by striking the second sentence.

CHAPTER 2—AMENDMENTS TO FEDERAL OIL AND GAS ROYALTY MANAGEMENT ACT OF 1982

SEC. 7211. AMENDMENTS TO DEFINITIONS.

Section 3 of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1702) is amended—

(1) in paragraph (20)(A), by striking ": *Provided*, That" and all that follows through "subject of the judicial proceeding";

(2) in paragraph (20)(B), by striking ''(with written notice to the lessee who designated the designee)'';

(3) in paragraph (23)(A), by striking ''(with written notice to the lessee who designated the designee)'' ;

(4) by amending paragraph (24) to read as follows:

''(24) 'designee' means any person who pays, offsets, or credits monies, makes adjustments, requests and receives refunds, or submits reports with respect to payments a lessee must make pursuant to section 102(a);'';

(5) in paragraph (25)(B), by striking ''(subject to the provisions of section 102(a) of this Act)''; and

(6) in paragraph (26), by striking ''(with notice to the lessee who designated the designee)''.

SEC. 7212. INTEREST.

(a) ESTIMATED PAYMENTS; INTEREST ON AMOUNT OF UNDERPAYMENT.—Section 111(j) of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1721(j)) is amended by striking ''If the estimated payment exceeds the actual royalties due, interest is owed on the overpayment.''.

(b) OVERPAYMENTS.—Section 111 of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1721) is amended by striking subsections (h) and (i).

(c) EFFECTIVE DATE.—The amendments made by this section shall be effective one year after the date of enactment of this Act.

SEC. 7213. OBLIGATION PERIOD.

Section 115(c) of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1724(c)) is amended by adding at the end the following:

"(3) ADJUSTMENTS.—In the case of an adjustment under section 111A(a) (30 U.S.C. 1721a(a)) in which a recoupment by the lessee results in an underpayment of an obligation, for purposes of this Act the obligation becomes due on the date the lessee or its designee makes the adjustment.".

SEC. 7214. TOLLING AGREEMENTS AND SUBPOENAS.

(a) TOLLING AGREEMENTS.—Section 115(d)(1) of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1724(d)(1)) is amended by striking "(with notice to the lessee who designated the designee)".

(b) SUBPOENAS.—Section 115(d)(2)(A) of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1724(d)(2)(A)) is amended by striking "(with no-

tice to the lessee who designated the designee, which notice shall not constitute a subpoena to the lessee)''.

SEC. 7215. LIABILITY FOR ROYALTY PAYMENTS.

Section 102(a) of the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1712(a)) is amended to read as follows:

''(a) In order to increase receipts and achieve effective collections of royalty and other payments, a lessee who is required to make any royalty or other payment under a lease or under the mineral leasing laws, shall make such payments in the time and manner as may be specified by the Secretary or the applicable delegated State. Any person who pays, offsets or credits monies, makes adjustments, requests and receives refunds, or submits reports with respect to payments the lessee must make is the lessee's designee under this Act. Notwithstanding any other provision of this Act to the contrary, a designee shall be liable for any payment obligation of any lessee on whose behalf the designee pays royalty under the lease. The person owning operating rights in a lease and a person owning legal record title in a lease shall be liable for that person's pro rata share of payment obligations under the lease.''.

CHAPTER 3—PUBLIC INTEREST IN THE FEDERAL ENERGY PROGRAM

SEC. 7221. SURFACE OWNER PROTECTION.

(a) DEFINITIONS.—As used in this section—

(1) the term ''Secretary'' means the Secretary of the Interior;

(2) the term ''lease'' means a lease issued by the Secretary under the Mineral Leasing Act (30 U.S.C. 181 et seq.);

(3) the term ''lessee'' means the holder of a lease; and

(4) the term ''operator'' means any person that is responsible under the terms and conditions of a lease for the operations conducted on leased lands or any portion thereof.

(b) POST-LEASE SURFACE USE AGREEMENT.—

(1) IN GENERAL.—Except as provided in subsection (c), the Secretary may not authorize any operator to conduct exploration and drilling operations on lands with respect to which title to oil and gas resources is held by the United States but title to the surface estate is not held by the United States, until the operator has filed with the Secretary a document, signed by the operator and the surface owner or owners, showing that the operator has secured a

1 written surface use agreement between the operator
2 and the surface owner or owners that meets the re-
3 quirements of paragraph (2).
4 (2) CONTENTS.—The surface use agreement
5 shall provide for—
6 (A) the use of only such portion of the sur-
7 face estate as is reasonably necessary for explo-
8 ration and drilling operations based on site-spe-
9 cific conditions;
10 (B) the accommodation of the surface es-
11 tate owner to the maximum extent practicable,
12 including the location, use, timing, and type of
13 exploration and drilling operations, consistent
14 with the operator's right to develop the oil and
15 gas estate;
16 (C) the reclamation of the site to a condi-
17 tion capable of supporting the uses which such
18 lands were capable of supporting prior to explo-
19 ration and drilling operations or other uses as
20 agreed to by the operator and the surface
21 owner; and
22 (D) compensation for damages as a result
23 of exploration and drilling operations, including
24 but not limited to—

(i) loss of income and increased costs incurred;

(ii) damage to or destruction of personal property, including crops, forage, and livestock; and

(iii) failure to reclaim the site in accordance with this subparagraph (C).

(3) PROCEDURE.—

(A) IN GENERAL.—An operator shall notify the surface estate owner or owners of the operator's desire to conclude an agreement under this section. If the surface estate owner and the operator do not reach an agreement within 90 days after the operator has provided such notice, the matter shall be referred to third party arbitration for resolution within a period of 90 days. The cost of such arbitration shall be the responsibility of the operator.

(B) IDENTIFICATION OF ARBITERS.—The Secretary shall identify persons with experience in conducting arbitrations and shall make this information available to operators and surface owners.

(C) REFERRAL TO IDENTIFIED ARBITER.—Referral of a matter for arbitration by a

person identified by the Secretary pursuant to subparagraph (B) shall be sufficient to constitute compliance with subparagraph (A).

(4) ATTORNEYS FEES.—If action is taken to enforce or interpret any of the terms and conditions contained in a surface use agreement, the prevailing party shall be reimbursed by the other party for reasonable attorneys fees and actual costs incurred, in addition to any other relief which a court or arbitration panel may grant.

(c) AUTHORIZED EXPLORATION AND DRILLING OPERATIONS.—

(1) AUTHORIZATION WITHOUT SURFACE USE AGREEMENT.—The Secretary may authorize an operator to conduct exploration and drilling operations on lands covered by subsection (b) in the absence of an agreement with the surface estate owner or owners, if—

(A) the Secretary makes a determination in writing that the operator made a good faith attempt to conclude such an agreement, including referral of the matter to arbitration pursuant to subsection (b)(3), but that no agreement was concluded within 90 days after the referral to arbitration;

(B) the operator submits a plan of operations that provides for the matters specified in subsection (b)(2) and for compliance with all other applicable requirements of Federal and State law; and

(C) the operator posts a bond or other financial assurance in an amount the Secretary determines to be adequate to ensure compensation to the surface estate owner for any damages to the site, in the form of a surety bond, trust fund, letter of credit, government security, certificate of deposit, cash, or equivalent.

(2) SURFACE OWNER PARTICIPATION.—The Secretary shall provide surface estate owners with an opportunity to—

(A) comment on plans of operations in advance of a determination of compliance with this section;

(B) participate in bond level determinations and bond release proceedings under this subsection;

(C) attend an on-site inspection during such determinations and proceedings;

(D) file written objections to a proposed bond release; and

(E) request and participate in an on-site inspection when they have reason to believe there is a violation of the terms and conditions of a plan of operations.

(3) PAYMENT OF FINANCIAL GUARANTEE.—A surface estate owner with respect to any land subject to a lease may petition the Secretary for payment of all or any portion of a bond or other financial assurance required under this subsection as compensation for any damages as a result of exploration and drilling operations. Pursuant to such a petition, the Secretary may use such bond or other guarantee to provide compensation to the surface estate owner for such damages.

(4) BOND RELEASE.—Upon request and after inspection and opportunity for surface estate owner review, the Secretary may release the financial assurance required under this subsection if the Secretary determines that exploration and drilling operations have ended and all damages have been fully compensated.

(d) SURFACE OWNER NOTIFICATION.—The Secretary shall—

(1) notify surface estate owners in writing at least 45 days in advance of lease sales;

(2) within ten working days after a lease is issued, notify surface estate owners regarding the identity of the lessee;

(3) notify surface estate owners in writing within 10 working days concerning any subsequent decisions regarding a lease, such as modifying or waiving stipulations and approving rights-of-way; and

(4) notify surface estate owners within five business days after issuance of a drilling permit under a lease.

(e) REGULATIONS.—The Secretary shall issue regulations implementing this section by not later than 1 year after the date of the enactment of this Act.

(f) RELATIONSHIP TO STATE LAW.—Nothing in this section preempts applicable State law or regulation relating to surface owner protection.

SEC. 7222. ONSHORE OIL AND GAS RECLAMATION AND BONDING.

Section 17 of the Mineral Leasing Act (30 U.S.C. 226) is amended by adding at the end the following:

''(q) RECLAMATION REQUIREMENTS.—An operator producing oil or gas (including coalbed methane) under a lease issued pursuant to this Act shall—

"(1) at a minimum restore the land affected to a condition capable of supporting the uses that it was capable of supporting prior to any drilling, or higher or better uses of which there is reasonable likelihood, so long as such use or uses do not present any actual or probable hazard to public health or safety or pose any actual or probable threat of water diminution or pollution, and the permit applicants' declared proposed land use following reclamation is not impractical or unreasonable, inconsistent with applicable land use policies and plans, or involve unreasonable delay in implementation, or is violative of Federal or State law;

"(2) ensure that all reclamation efforts proceed in an environmentally sound manner and as contemporaneously as practicable with the oil and gas drilling operations; and

"(3) submit with the plan of operations a reclamation plan that describes in detail the methods and practices that will be used to ensure complete and timely restoration of all lands affected by oil and gas operations.

"(r) RECLAMATION BOND OR OTHER FINANCIAL ASSURANCES.—An operator producing oil or gas (including coalbed methane) under a lease issued under this Act shall

post a bond or other financial assurances that cover the reclamation of that area of land within the permit area upon which the operator will initiate and conduct oil and gas drilling and reclamation operations within the initial term of the permit. As succeeding increments of oil and gas drilling and reclamation operations are to be initiated and conducted within the permit area, the lessee shall file with the regulatory authority an additional bond or bonds or other financial assurances to cover such increments in accordance with this section. The amount of the bond or other financial assurances required for each bonded area shall depend upon the reclamation requirements of the approved permit; shall reflect the probable difficulty of reclamation giving consideration to such factors as topography, geology of the site, hydrology, and revegetation potential; and shall be determined by the Secretary. The amount of the bond or other financial assurances shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the Secretary in the event of forfeiture.

"(s) REGULATIONS.—No later than one year after the date of the enactment of this subsection, the Secretary shall promulgate regulations to implement the requirements, including for the release of bonds or other financial assurances, of subsections (q) and (r).".

SEC. 7223. PROTECTION OF WATER RESOURCES.

(a) MINERAL LEASING ACT REQUIREMENTS.—Section 17 of the Mineral Leasing Act (30 U.S.C. 226) is further amended by adding at the end the following:

"(t) WATER REQUIREMENTS.—

"(1) IN GENERAL.—An operator producing oil or gas (including coalbed methane) under a lease issued under this Act shall—

"(A) remediate or replace the water supply of a water user who obtains all or part of such user's supply of water for domestic, agricultural, or other purposes from an underground or surface source that has been affected by contamination, diminution, or interruption proximately resulting from drilling operations for such production; and

"(B) comply with all applicable requirements of Federal and State law for discharge of any water produced under the lease.

"(2) WATER MANAGEMENT PLAN.—An application for a permit to drill submitted pursuant to a lease issued under this Act shall be accompanied by a proposed water management plan including provisions to—

"(A) protect the quantity and quality of surface and ground water systems, both on-site

and off-site, from adverse effects of the exploration, development, and reclamation processes or to provide alternative sources of water if such protection cannot be assured;

"(B) protect the rights of present users of water that would be affected by operations under the lease, including the discharge of any water produced in connection with such operations that is not reinjected; and

"(C) identify any agreements with other parties for the beneficial use of produced waters and the steps that will be taken to comply with State and Federal laws related to such use.".

(b) RELATION TO STATE LAW.—Nothing in this chapter or any amendment made by this chapter shall—

(1) be construed as impairing or in any manner affecting any right or jurisdiction of any State with respect to the waters of such State; or

(2) be construed as limiting, altering, modifying, or amending any of the interstate compacts or equitable apportionment decrees that apportion water among and between States.

(c) REGULATIONS.—No later than one year after the date of the enactment of this Act, the Secretary of the

Interior shall promulgate regulations to implement this section.

(d) INTENT OF CONGRESS.—Nothing in this section shall be construed to be intended by Congress as a precedent for oil and gas management on State or privately owned land.

SEC. 7224. DUE DILIGENCE FEE.

(a) ESTABLISHMENT.—The Secretary of the Interior shall, within 180 days after the date of enactment of this Act, issue regulations to establish a fee with respect to Federal onshore lands that are subject to a lease for production of oil, natural gas, or coal under which production is not occurring. Such fee shall apply with respect to lands that are subject to such a lease that is in effect on the date final regulations are promulgated under this subsection or that is issued thereafter.

(b) AMOUNT.—The amount of the fee shall be $1 per year for each acre of land that is not in production for that year.

(c) ASSESSMENT AND COLLECTION.—The Secretary shall assess and collect the fee established under this section.

(d) DEPOSIT AND USE.—Amounts received by the United States in the form of the fee established under this section shall be available to the Secretary of the Interior

for use to repair damage to Federal lands and resources caused by oil and gas development, in accordance with the the documents submitted by the President with the budget submission for fiscal year 2008 relating to the Healthy Lands Initiative. Amounts received by the United States as fees under this section shall be treated as offsetting receipts.

CHAPTER 4—WIND ENERGY

SEC. 7231. WIND TURBINE GUIDELINES ADVISORY COMMITTEE.

(a) IN GENERAL.—The Secretary of the Interior, within 30 days after the date of enactment of this Act, shall convene or utilize an existing Wind Turbine Guidelines Advisory Committee to study and make recommendations to the Secretary on guidance for avoiding or minimizing impacts to wildlife and their habitats related to land-based wind energy facilities. The matters assessed by the Committee shall include the following:

(1) The Service Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines of 2003.

(2) Balancing potential impacts to wildlife with requirements for acquiring the information necessary to assess those impacts prior to selecting sites and designing facilities.

(3) The scientific tools and procedures best able to assess pre-development risk or benefits provided to wildlife, measure post-development mortality, assess behavioral modification, and provide compensatory mitigation for unavoidable impacts.

(4) A process for coordinating State, tribal, local, and national review and evaluation of the impacts to wildlife from wind energy consistent with State and Federal laws and international treaties.

(5) Determination of project size thresholds or impacts below which guidelines may not apply.

(6) Appropriate timetables for phasing-in guidance.

(7) Current State actions to avoid and minimize wildlife impacts from wind turbines in consultation with State wildlife agencies.

(b) COMMITTEE OPERATIONS.—The Wind Turbine Guidelines Advisory Committee shall conduct its activities in accordance with the Federal Advisory Committee Act (5 U.S.C. App.). The Secretary is authorized to provide such technical analyses and support as is requested by such advisory committee.

(c) COMMITTEE MEMBERSHIP.—The membership of the Wind Turbine Guidelines Advisory Committee shall not exceed 20 members, and shall be appointed by the Sec-

retary of the Interior to achieve balanced representation of wind energy development, wildlife conservation, and government. The members shall include representatives from the United States Fish and Wildlife Service and other Federal agencies, and representatives from other interested persons, including States, tribes, wind energy development organizations, nongovernmental conservation organizations, and local regulatory or licensing commissions.

(d) REPORT.—The Wind Turbine Advisory Committee shall, within 18 months after the date of enactment of this Act, submit a report to Congress and the Secretary providing recommended guidance for developing effective measures to protect wildlife resources and enhance potential benefits to wildlife that may be identified.

(e) ISSUANCE OF GUIDANCE.—Not later than 6 months after receiving the report of the Wind Turbine Guidelines Advisory Committee under subsection (d), the Secretary shall following public notice and comment issue final guidance to avoid and minimize impacts to wildlife and their habitats related to land-based wind energy facilities. Such guidance shall be based upon the findings and recommendations made in the report.

SEC. 7232. AUTHORIZATION OF APPROPRIATIONS FOR RESEARCH TO STUDY WIND ENERGY IMPACTS ON WILDLIFE.

There is authorized to be appropriated to the Secretary of the Interior $2,000,000 for each of fiscal years 2008 through 2015 for new and ongoing research efforts to evaluate methods for minimizing wildlife impacts at wind energy projects and to explore effective mitigation methods that may be utilized for that purpose.

SEC. 7233. ENFORCEMENT.

The Secretary shall enforce the Endangered Species Act of 1973, the Migratory Bird Treaty Act, the Bald Eagle Protection Act, the Golden Eagle Protection Act, the Marine Mammal Protection Act of 1973, the National Environmental Policy Act of 1969, and any other relevant Federal law to address adverse wildlife impacts related to wind projects. Nothing in this section preempts State enforcement of applicable State laws.

SEC. 7234. SAVINGS CLAUSE.

Nothing in this chapter preempts any provision of State law or regulation relating to the siting of wind projects or to consideration or review of any environmental impacts of wind projects.

CHAPTER 5—ENHANCING ENERGY TRANSMISSION

SEC. 7241. POWER MARKETING ADMINISTRATIONS REPORT.

(a) ANALYSIS.—The Secretary of Energy, acting through the Administrator of the Bonneville Area Power Marketing Administration in consultation with the Western Area Power Marketing Administration, and in coordination with regional transmission entities, shall conduct, or participate with such regional transmission entities to conduct, an analysis of the existing capacity of transmission systems serving the States of California, Oregon, and Washington to determine whether the existing capacity is adequate to accommodate and integrate development and commercial operation of ocean wave, tidal, and current energy projects in State and Federal marine waters adjacent to those States.

(b) REPORT.—Based on the analysis conducted under subsection (a), the Secretary of Energy shall prepare and provide to the Natural Resources Committee of the House of Representatives and the Energy and Natural Resources Committee of the Senate, not later than one year after the date of enactment of this Act, a report identifying changes required, if any, in the capacity of existing transmission systems serving the States referred to in subsection (a) in order to reliably and efficiently accommodate

and integrate generation from commercial ocean wave, tidal, and current energy projects in aggregate, escalating amounts equal to 2.5, 5, and 10 percent of the current electrical energy consumption in those States.

(c) ACTIVITIES NONREIMBURSABLE.—Activities carried out under subsection (a) or (b) shall be nonreimbursable.

(d) EXISTING PROCEDURES AND QUEUING NOT AFFECTED.—Nothing in this section supercedes existing procedures and queuing pursuant to the appropriate Open Access Transmission Tariffs filed by the Administrators of the Bonneville and Western Area Power Administrations.

Subtitle C—Alternative Energy and Efficiency

SEC. 7301. STATE OCEAN AND COASTAL ALTERNATIVE ENERGY PLANNING.

(a) IN GENERAL.—The Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) is amended by inserting after section 306A the following:

''OCEAN AND COASTAL ALTERNATIVE ENERGY STATE SURVEYS; ALTERNATIVE ENERGY SITE IDENTIFICATION AND PLANNING

''SEC. 306B. (a) GRANTS TO STATES.—The Secretary may make grants to eligible coastal States to support voluntary State efforts to initiate and complete sur-

1 veys of portions of coastal State waters and Federal wa-
2 ters adjacent to a State's coastal zone, in consultation
3 with the Minerals Management Service, to identify poten-
4 tial areas suitable or unsuitable for the exploration, devel-
5 opment, and production of alternative energy that are con-
6 sistent with the enforceable policies of coastal manage-
7 ment plans approved pursuant to section 306(d).

8 ''(b) SURVEY ELEMENTS.—Surveys developed with
9 grants under this section may include, but not be limited
10 to—

11 ''(1) hydrographic and bathymetric surveys;

12 ''(2) oceanographic observations and measure-
13 ments of the physical ocean environment, especially
14 seismically active areas;

15 ''(3) identification and characterization of sig-
16 nificant or sensitive marine ecosystems or other
17 areas possessing important conservation, rec-
18 reational, ecological, historic, or aesthetic values;

19 ''(4) surveys of existing marine uses in the
20 outer Continental Shelf and identification of poten-
21 tial conflicts;

22 ''(5) inventories and surveys of shore locations
23 and infrastructure capable of supporting alternative
24 energy development;

"(6) inventories and surveys of offshore locations and infrastructure capable of supporting alternative energy development; and

"(7) other actions as may be necessary.

"(c) PARTICIPATION AND COOPERATION.—To the extent practicable, coastal States shall provide opportunity for the participation in surveys under this section by relevant Federal agencies, State agencies, local governments, regional organizations, port authorities, and other interested parties and stakeholders, public and private, that is adequate to develop a comprehensive survey.

"(d) GUIDELINES.—The Secretary shall, within 180 days after the date of enactment of this section and after consultation with the coastal States, publish guidelines for the application for and use of grants under this section.

"(e) ANNUAL GRANTS.—For each of fiscal years 2008 through 2011, the Secretary may make a grant to a coastal State under this section if the coastal State demonstrates to the satisfaction of the Secretary that the grant will be used to develop an alternative energy survey consistent with the requirements set forth in this section.

"(f) GRANT AMOUNTS.—The amount of any grant under this section shall not exceed $750,000 for any fiscal year.

"(g) STATE MATCH.—

"(1) BEFORE FISCAL YEAR 2010.—The Secretary shall not require any State matching fund contribution for grants awarded under this section for any fiscal year before fiscal year 2010.

"(2) AFTER FISCAL YEAR 2010.—The Secretary shall require a coastal State to provide a matching fund contribution for a grant under this section for surveys of a State's coastal waters, according to—

"(A) a 2-to-1 ratio of Federal-to-State contributions for fiscal year 2010; and

"(B) a 1-to-1 ratio of Federal-to-State contributions for fiscal year 2011.

"(3) LIMITATION.—The Secretary shall not require any matching funds for surveys of Federal waters adjacent to a State's coastal zone.

"(h) SECRETARIAL REVIEW.—After an initial grant is made to a coastal State under this section, no subsequent grant may be made to that coastal State under this section unless the Secretary finds that the coastal State is satisfactorily developing its survey.

"(i) LIMITATION ON ELIGIBILITY.—No coastal State is eligible to receive grants under this section for more than 4 fiscal years.

"(j) APPLICABILITY.—This section and the surveys conducted with assistance under this section shall not be

1 construed to convey any new authority to any coastal
2 State, or repeal or supersede any existing authority of any
3 Federal agency, to regulate the siting, licensing, leasing,
4 or permitting of alternative energy facilities in areas of
5 the outer Continental Shelf under the administration of
6 the Federal Government. Nothing in this section repeals
7 or supersedes any existing coastal State authority pursu-
8 ant to State or Federal law.

9 ''(k) PRIORITY.—Any area that is identified as suit-
10 able for potential alternative energy development under
11 surveys developed with assistance under this section shall
12 be given priority consideration by Federal agencies for the
13 siting, licensing, leasing, or permitting of alternative en-
14 ergy facilities. Any area that is identified as unsuitable
15 under surveys developed with assistance under this section
16 shall be avoided by Federal agencies to the maximum ex-
17 tent practicable.

18 ''(l) ASSISTANCE BY THE SECRETARY.—The Sec-
19 retary shall—

20 ''(1) under section 307(a) and to the extent
21 practicable, make available to coastal States the re-
22 sources and capabilities of the National Oceanic and
23 Atmospheric Administration to provide technical as-
24 sistance to the coastal States to develop surveys
25 under this section; and

"(2) encourage other Federal agencies with relevant expertise to participate in providing technical assistance under this subsection.".

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 318(a) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1464) is amended—

(1) in paragraph (1)(C) by striking "and" after the semicolon;

(2) in paragraph (2), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

"(3) for grants under section 306B such sums as are necessary; and".

SEC. 7302. CANAL-SIDE POWER PRODUCTION AT BUREAU OF RECLAMATION PROJECTS.

(a) EVALUATION AND REPORT.—Not later than one year after the date of the enactment of this Act, the Secretary of the Interior shall complete an evaluation and report to Congress on the potential for developing rights-of-way along Bureau of Reclamation canals and infrastructure for solar or wind energy production through leasing of lands or other means. The report to Congress shall specify—

(1) location of potential rights-of-way for energy production;

(2) total acreage available for energy production;

(3) existing transmission infrastructure at sites;

(4) estimates of fair market leasing value of potential energy sites; and

(5) estimate energy development potential at sites.

(b) CONSULTATION.—In carrying out this section the Secretary of the Interior shall consult with persons that would be affected by development of rights-of-ways referred to in subsection (a), including the beneficiaries of the canal and infrastructure evaluated under that subsection.

(c) LIMITATIONS.—Nothing in this section—

(1) shall be construed to authorize the Bureau of Reclamation or any contractor hired by the Bureau of Reclamation to inventory or access rights-of-way owned or operated and maintained by non-Federal interests, unless such interests provide written permission for such inventory or an agreement or contract governing Federal access is in effect;

(2) shall be construed to impede accessibility, impair project operations and maintenance, or create additional costs for entities managing the rights-of-way; or

(3) shall be used as the basis of an increase in project-use power or preference power costs that will be borne by the consumer.

SEC. 7303. INCREASING ENERGY EFFICIENCIES FOR WATER DESALINATION.

The Water Desalination Act of 1996 (42 U.S.C. 10301 note; Public Law 104–298) is amended by adding at the end the following new section:

"SEC. 10. RESEARCH ON REVERSE OSMOSIS TECHNOLOGY FOR WATER DESALINATION AND WATER RECYCLING.

"(a) RESEARCH PROGRAM.—The Secretary of the Interior, in consultation with the Secretary of Energy, shall implement a program to research methods for improving the energy efficiency of reverse osmosis technology for water desalination, water contamination, and water recycling.

"(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Secretary of the Interior shall submit to Congress a report which shall include—

"(1) a review of existing and emerging technologies, both domestic and international, that are likely to improve energy efficiency or utilize renew-

able energy sources at existing and future desalination and recycling facilities; and

"(2) an analysis of the economic viability of energy efficiency technologies.".

SEC. 7304. ESTABLISHING A PILOT PROGRAM FOR THE DEVELOPMENT OF STRATEGIC SOLAR RESERVES ON FEDERAL LANDS.

(a) PURPOSE.—The purpose of this section is to establish a pilot program for the development of strategic solar reserves on Federal lands for the advancement, development, assessment, and installation of commercial solar electric energy systems.

(b) STRATEGIC SOLAR RESERVE PILOT PROGRAM.—

(1) SITE SELECTION.—The Secretary of the Interior, in consultation with the Secretary of Energy, the Secretary of Defense, and the Federal Energy Regulatory Commission, States, tribal, or local units of governments, as appropriate, affected utility industries, and other interested persons, shall complete the following:

(A) Identify Federal lands under the jurisdiction of the Bureau of Land Management, subject to valid existing rights, that are suitable and feasible for the installation of solar electric energy systems sufficient to create a solar en-

ergy reserve of no less than 4 GW and no more than 25 GW.

(B) Perform any environmental reviews that may be required to complete the designation of such solar reserves.

(C) Incorporate the designated solar reserves into the relevant agency land use and resource management plans or equivalent plans.

(D) Identify the needed transmission upgrades to the solar reserves.

(2) MINIMUM POWER OF SITES.—Each site identified as suitable and feasible for the installation of solar electric energy systems shall be sufficient for the installation of at least 1 GW.

(3) LANDS NOT INCLUDED.—The following Federal lands shall not be included within a strategic solar reserve site:

(A) Components of the National Landscape Conservation System.

(B) Areas of Critical Environmental Concern.

(4) IMPLEMENTATION OF THE PILOT PROGRAM FOR STRATEGIC SOLAR RESERVES.—

(A) IN GENERAL.—The Secretary of the Interior, in consultation with the Secretary of

Energy and following the completion of the requirements under paragraph (1)(B), shall expeditiously implement a strategic solar reserve pilot program in order to issue rights-of-way on land identified under paragraph (1)(A) to produce no less than 4 GW and no more than 25 GW of solar electric power from that land.

(B) CRITERIA FOR APPLICATIONS.—The Secretary of the Interior, in consultation with the Secretary of Energy, shall establish criteria for approving applications to obtain rights-of-way on land under this paragraph based, in part, on the proposed solar electric energy technologies proposed to be used on such rights-of-way.

(C) VARIETY OF TECHNOLOGIES.—The Secretary of the Interior, in consultation with the Secretary of Energy, shall provide for a variety of solar electric energy technologies to be used on rights-of-way on land under this paragraph.

(D) MILESTONES.—The Secretary of the Interior, in consultation with the Secretary of Energy, shall develop milestones for activities on rights-of-way on land under this paragraph

to ensure due diligence in the development of such land.

(5) ENVIRONMENTAL COMPLIANCE.—The Secretary of the Interior shall complete all necessary environmental surveys, compliance, and permitting for rights-of-way pursuant to title V of the Federal Land Policy and Management Act of 1976 for each strategic solar reserve, as expeditiously as possible. Each applicant shall pay all costs of environmental compliance, including when a determination is made that the land that is the subject of the application is not suitable and feasible for installation or the bid is withdrawn following the initiation of such environmental compliance.

(6) PERMITS.—The Secretary of the Interior shall ensure that all strategic solar reserve installations pursuant to this section are permitted using an expedited permitting process. The Secretary shall, in consultation with the Secretary of Energy, complete the preparation of a Programmatic Environmental Impact Statement by the Departments of Energy and the Interior for purposes of this section.

(7) RENTAL FEE; RIGHT-OF-WAY TERM.—

(A) RENTAL FEE.—The rental fee for each strategic solar reserve right-of-way under this

subsection shall be in the amount of $300 per acre per year for the initial 10-year period, except that the rental fee shall be phased-in for a right-of-way during the initial 3 years after the signing of the right-of-way authorization. For the first year the rental fee shall be 25 percent of that amount. For the second year the rental fee shall be 50 percent of that amount. For the third year and each year thereafter the fee shall be 100 percent of that amount, except that the rental fee after the initial 10-year period shall be adjusted by the Secretary of the Interior according to the Gross Domestic Product Implicit Price Deflator each year for the remainder of the term of the right-of-way authorization. The rental fee shall be paid in annual payments commencing on the day the right-of-way authorization is signed. The rental fee established by this paragraph shall apply to all solar electric projects that have pending applications with the Bureau of Land Management as of June 1, 2007.

(B) TERM.—Each right-of-way authorization shall be effective for an initial term of 30

years. Such term may be extended by the Secretary of the Interior for periods of 10 years.

(8) REPORT TO CONGRESS.—The Secretary of the Interior, in consultation with the Secretary of Energy, shall submit a report to Congress on the findings of the pilot program—

(A) not later than 3 years after the installation of the first facility pursuant to this section; and

(B) 10 years after the installation of the first facility pursuant to this section.

(c) BUY AMERICAN ACT.—Beginning 3 years after the date of enactment of this Act, any equipment used on lands included within a strategic solar reserve site must be American-made, as that term is used in the Buy American Act (41 U.S.C. 10a et seq.).

(d) SUNSET.—Except as provided in subsection (b)(7), the authorities contained in this section shall expire 10 years after the date of the enactment of this Act.

SEC. 7305. OTEC REGULATIONS.

The Administrator of the National Oceanic and Atmospheric Administration shall, within two years after the date of enactment of this Act, issue regulations necessary to implement the Administrator's authority to license offshore thermal energy conversion facilities under the Ocean

Thermal Energy Conversion Research, Development, and Demonstration Act (42 U.S.C. 9001 et seq.).

SEC. 7306. BIOMASS UTILIZATION PILOT PROGRAM.

(a) REPLACEMENT OF CURRENT GRANT PROGRAM.—Section 210 of the Energy Policy Act of 2005 (42 U.S.C. 15855) is amended to read as follows:

"SEC. 210. BIOMASS UTILIZATION PILOT PROGRAM.

"(a) FINDINGS.—Congress finds the following:

"(1) The supply of woody biomass for energy production is directly linked to forest management planning to a degree far greater than in the case of other types of energy development.

"(2) As a consequence of this linkage, the process of developing and evaluating appropriate technologies and facilities for woody biomass energy and utilization must be integrated with long-term forest management planning processes, particularly in situations where Federal lands dominate the forested landscape.

"(b) BIOMASS DEFINITION FOR FEDERAL FOREST LANDS.—In this section, with respect to organic material removed from National Forest System lands or from public lands administered by the Secretary of the Interior, the term 'biomass' covers only organic material from—

"(1) ecological forest restoration;

"(2) small-diameter byproducts of hazardous fuels treatments;

"(3) pre-commercial thinnings;

"(4) brush;

"(5) mill residues; and

"(6) slash.

"(c) PILOT PROGRAM.—The Secretary of Agriculture and the Secretary of the Interior shall establish a pilot program, to be known as the 'Biomass Utilization Pilot Program', involving 10 different forest types on Federal lands, under which the Secretary concerned will provide technical assistance and grants to persons to support the following biomass-related activities:

"(1) The development of biomass utilization infrastructure to support hazardous fuel reduction and ecological forest restoration.

"(2) The research and implementation of integrated facilities that seek to utilize woody biomass for its highest and best uses, with particular emphasis on projects that are linked to implementing community wildfire protection plans, ecological forest restoration, and economic development in rural communities.

"(3) The testing of multiple technologies and approaches to biomass utilization for energy, with

emphasis on improving energy efficiency, developing thermal applications and distributed heat, biofuels, and achieving cleaner emissions including through combustion with other fuels, as well as other value-added uses.

"(d) BIOMASS SUPPLY STUDY.—Prior to the development of any biomass utilization pilot projects, the Secretary concerned shall develop a study to determine the long-term, ecologically sustainable, biomass supply available in the pilot program area. The study shall incorporate results form coordinated resource offering protocol (CROP) studies. The study shall also analyze the long-term availability of biomass materials within a reasonable transportation distance. The biomass supply studies shall be developed through a collaborative approach, as evidenced by the broad involvement, analysis, and agreement of interested persons, including local governments, energy developers, conservationists, and land management agencies. The Secretary concerned may direct a resource advisory committee established under section 205 of the Secure Rural Schools and Community Self-Determination Act of 2000 (16 U.S.C. 500 note; Public Law 106–393), and reauthorized by the amendments made by Public Law 110–28, to carry out the requirements of this subsection. The results of the biomass supply study shall be a basis

for determining the project scale, as outlined in subsection (g).

"(e) EXCLUSION OF CERTAIN FEDERAL LAND.—The following Federal lands may not be included within a pilot project site:

"(1) Federal land containing old-growth forest or late-successional forest, unless the Secretary concerned determines that the pilot project on such land is appropriate for the applicable forest type and maximizes and enhances the retention of late-successional and large- and old-growth trees, late-successional and old-growth forest structure, and late-successional and old-growth forest composition.

"(2) Federal land on which the removal of vegetation is prohibited, including components of the National Wilderness Preservation System.

"(3) Wilderness Study Areas.

"(4) Inventoried roadless areas.

"(5) Components of the National Landscape Conservation System.

"(6) National Monuments.

"(f) MULTIPLE PROJECTS.—In conducting the pilot program, the Secretary concerned shall include a variety of projects involving—

"(1) innovations in facilities of various sizes and processing techniques; and

"(2) the full spectrum of woody biomass producing regions of the United States.

"(g) SELECTION CRITERIA AND PROJECT SCALE.—In selecting the projects to be conducted under the pilot program, and the appropriate scale of projects, the Secretary concerned shall consider criteria that evaluate existing economic, ecological, and social conditions, focusing on opportunities such as workforce training, job creation, ecosystem health, reducing energy costs, and facilitating the production of alternative energy fuels. The agreement on the scale of a project shall be reached through a collaborative approach, as evidenced by the broad involvement, analysis, and agreement of interested persons, including local governments, energy developers, conservationists, and land management agencies. In selecting the appropriate scale of projects to be conducted under the pilot program, the Secretary concerned shall also consider the results of the supply study as outlined in subsection (d).

"(h) MONITORING AND REPORTING REQUIREMENTS.—As part of the pilot program, the Secretary concerned shall impose monitoring and reporting requirements to ensure that the ecological, social, and economic effects of the projects conducted under the pilot program

are being monitored and that the accomplishments, challenges, and lessons of each project are recorded and reported.

"(i) OTHER DEFINITIONS.—In this section:

"(1) HIGHEST AND BEST USE.—The term 'highest and best use', with regard to biomass, means—

"(A) creating from raw materials those products and those biomass uses that will achieve the highest market value; and

"(B) yielding a wide range of existing and innovative products and biomass uses that create new markets, stimulate existing ones, and improve rural economies, maintains or improves ecosystem integrity, while also supporting traditional biomass energy generation.

"(2) PILOT PROGRAM.—The term 'pilot program' means the Biomass Utilization Pilot Program established pursuant to this section.

"(3) SECRETARY CONCERNED.—The term 'Secretary concerned' means the Secretary of Agriculture, with respect to National Forest System lands, and the Secretary of the Interior, with respect to public lands administered by the Secretary of the Interior.

"(4) COMMUNITY WILDFIRE PROTECTION PLAN.—The term 'community wildfire protection plan' has the meaning given that term in section 101(3) of the Healthy Forest Restoration Act of 2003 (16 U.S.C. 6511(3)), which is further described by the Western Governors Association in the document entitled 'Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Interface Communities' and dated March 2004.

"(5) FEDERAL LAND.—The term 'Federal land' means—

"(A) land of the National Forest System (as defined in section 11(a) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1609(a)) administered by the Secretary of Agriculture, acting through the Chief of the Forest Service; and

"(B) public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)), the surface of which is administered by the Secretary of the Interior, acting through the Director of the Bureau of Land Management.

"(6) INVENTORIED ROADLESS AREA.—The term 'Inventoried roadless area' means one of the

areas identified in the set of inventoried roadless areas maps contained in the Forest Service Roadless Areas Conservation, Final Environmental Impact Statement, Volume 2, dated November 2000.

"(j) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated such sums as may be necessary to carry out the pilot program.".

(b) CLERICAL AMENDMENT.—The table of contents in section 1(b) of such Act is amended by striking the item relating to section 210 and inserting the following new item:

"Sec. 210. Biomass utilization pilot program.".

SEC. 7307. PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT.

The Secretary of Commerce and the Secretary of the Interior shall, in cooperation with the Federal Energy Regulatory Commission and the Secretary of Energy, and in consultation with appropriate State agencies, jointly prepare programmatic environmental impact statements which contain all the elements of an environmental impact statement under section 102 of the National Environmental Policy Act of 1969 (42 U.S.C. 4332), regarding the impacts of the deployment of marine and hydrokinetic renewable energy technologies in the navigable waters of the United States. One programmatic environmental impact statement shall be prepared under this section for

each of the Environmental Protection Agency regions of the United States. The agencies shall issue the programmatic environmental impact statements under this section not later than 18 months after the date of enactment of this Act. The programmatic environmental impact statements shall evaluate among other things the potential impacts of site selection on fish and wildlife and related habitat. Nothing in this section shall operate to delay consideration of any application for a license or permit for a marine and hydrokinetic renewable energy technology project.

Subtitle D—Carbon Capture and Climate Change Mitigation

CHAPTER 1—GEOLOGICAL SEQUESTRATION ASSESSMENT

SEC. 7401. SHORT TITLE.

This chapter may be cited as the ''National Carbon Dioxide Storage Capacity Assessment Act of 2007''.

SEC. 7402. NATIONAL ASSESSMENT.

(a) DEFINITIONS.—In this section:

(1) ASSESSMENT.—The term ''assessment'' means the national assessment of capacity for carbon dioxide completed under subsection (f).

(2) CAPACITY.—The term ''capacity'' means the portion of a storage formation that can retain car-

bon dioxide in accordance with the requirements (including physical, geological, and economic requirements) established under the methodology developed under subsection (b).

(3) ENGINEERED HAZARD.—The term ''engineered hazard'' includes the location and completion history of any well that could affect potential storage.

(4) RISK.—The term ''risk'' includes any risk posed by geomechanical, geochemical, hydrogeological, structural, and engineered hazards.

(5) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior, acting through the Director of the United States Geological Survey.

(6) STORAGE FORMATION.—The term ''storage formation'' means a deep saline formation, unmineable coal seam, or oil or gas reservoir that is capable of accommodating a volume of industrial carbon dioxide.

(b) METHODOLOGY.—Not later than 1 year after the date of enactment of this Act, the Secretary shall develop a methodology for conducting an assessment under subsection (f), taking into consideration—

(1) the geographical extent of all potential storage formations in all States;

(2) the capacity of the potential storage formations;

(3) the injectivity of the potential storage formations;

(4) an estimate of potential volumes of oil and gas recoverable by injection and storage of industrial carbon dioxide in potential storage formations;

(5) the risk associated with the potential storage formations; and

(6) the Carbon Sequestration Atlas of the United States and Canada that was completed by the Department of Energy in April 2006.

(c) COORDINATION.—

(1) FEDERAL COORDINATION.—

(A) CONSULTATION.—The Secretary shall consult with the Secretary of Energy and the Administrator of the Environmental Protection Agency on issues of data sharing, format, development of the methodology, and content of the assessment required under this section to ensure the maximum usefulness and success of the assessment.

(B) COOPERATION.—The Secretary of Energy and the Administrator shall cooperate with the Secretary to ensure, to the maximum extent

practicable, the usefulness and success of the assessment.

(2) STATE COORDINATION.—The Secretary shall consult with State geological surveys and other relevant entities to ensure, to the maximum extent practicable, the usefulness and success of the assessment.

(d) EXTERNAL REVIEW AND PUBLICATION.—On completion of the methodology under subsection (b), the Secretary shall—

(1) publish the methodology and solicit comments from the public and the heads of affected Federal and State agencies;

(2) establish a panel of individuals with expertise in the matters described in paragraphs (1) through (5) of subsection (b) composed, as appropriate, of representatives of Federal agencies, institutions of higher education, nongovernmental organizations, State organizations, industry, and international geoscience organizations to review the methodology and comments received under paragraph (1); and

(3) on completion of the review under paragraph (2), publish in the Federal Register the revised final methodology.

(e) PERIODIC UPDATES.—The methodology developed under this section shall be updated periodically (including at least once every 5 years) to incorporate new data as the data becomes available.

(f) NATIONAL ASSESSMENT.—

(1) IN GENERAL.—Not later than 2 years after the date of publication of the methodology under subsection (d)(1), the Secretary, in consultation with the Secretary of Energy and State geological surveys, shall complete a national assessment of capacity for carbon dioxide in accordance with the methodology.

(2) GEOLOGICAL VERIFICATION.—As part of the assessment under this subsection, the Secretary shall carry out a drilling program to supplement the geological data relevant to determining storage capacity of carbon dioxide in geological storage formations, including—

(A) well log data;

(B) core data; and

(C) fluid sample data.

(3) PARTNERSHIP WITH OTHER DRILLING PROGRAMS.—As part of the drilling program under paragraph (2), the Secretary shall enter, as appropriate, into partnerships with other entities to collect

and integrate data from other drilling programs relevant to the storage of carbon dioxide in geologic formations.

(4) INCORPORATION INTO NATCARB.—

(A) IN GENERAL.—On completion of the assessment, the Secretary of Energy shall incorporate the results of the assessment using the NatCarb database, to the maximum extent practicable.

(B) RANKING.—The database shall include the data necessary to rank potential storage sites for capacity and risk, across the United States, within each State, by formation, and within each basin.

(5) REPORT.—Not later than 180 days after the date on which the assessment is completed, the Secretary shall submit to the Committee on Natural Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report describing the findings under the assessment.

(6) PERIODIC UPDATES.—The national assessment developed under this section shall be updated periodically (including at least once every 5 years) to support public and private sector decisionmaking.

(g) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $30,000,000 for the period of fiscal years 2008 through 2012.

CHAPTER 2—TERRESTRIAL SEQUESTRATION ASSESSMENT

SEC. 7421. REQUIREMENT TO CONDUCT AN ASSESSMENT.

(a) IN GENERAL.—The Secretary of the Interior, acting through the United States Geological Survey, shall—

(1) conduct an assessment of the amount of carbon stored in terrestrial, aquatic, and coastal ecosystems (including estuaries);

(2) determine the processes that control the flux of carbon in and out of each ecosystem;

(3) estimate the potential for increasing carbon sequestration in natural systems through management measures or restoration activities in each ecosystem; and

(4) develop near-term and long-term adaptation strategies that can be employed to enhance the sequestration of carbon in each ecosystem.

(b) USE OF NATIVE PLANT SPECIES.—In developing management measures, restoration activities, or adaptation strategies, the Secretary shall emphasize the use of native plant species for each ecosystem.

(c) CONSULTATION.—The Secretary shall develop the methodology and conduct the assessment in consultation with the Secretary of Energy, the Administrator of the National Oceanic and Atmospheric Administration, and the heads of other relevant agencies.

SEC. 7422. METHODOLOGY.

(a) IN GENERAL.—Within one year after the date of enactment of this Act, the Secretary shall develop a methodology for conducting the assessment.

(b) PUBLICATION OF PROPOSED METHODOLOGY; COMMENT.—Upon completion of a proposed methodology, the Secretary shall publish the proposed methodology and solicit comments from the public and heads of affected Federal and State agencies for 60 days before publishing a final methodology.

SEC. 7423. COMPLETION OF ASSESSMENT AND REPORT.

The Secretary shall—

(1) complete the national assessment within 3 years after publication of the final methodology under section 7422; and

(2) submit a report describing the results of the assessment to the House Committee on Natural Resources and the Senate Committee on Energy and Natural Resources within 180 days after the assessment is completed.

SEC. 7424. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out this chapter $15,000,000 for the period of fiscal years 2008 through 2012.

CHAPTER 3—SEQUESTRATION ACTIVITIES

SEC. 7431. CARBON DIOXIDE STORAGE INVENTORY.

Section 354 of the Energy Policy Act of 2005 (42 U.S.C. 15910) is amended by redesignating subsection (d) as subsection (e), and by inserting after subsection (c) the following:

"(d) RECORDS AND INVENTORY.—The Secretary of the Interior, acting through the Bureau of Land Management, shall maintain records on and an inventory of the amount of carbon dioxide stored from Federal energy leases.".

SEC. 7432. FRAMEWORK FOR GEOLOGICAL CARBON SEQUESTRATION ON FEDERAL LANDS.

Not later than 1 year after the date of enactment of this Act, the Secretary of the Interior shall submit to the Committee on Natural Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on a recommended regulatory and certification framework for conducting geological carbon sequestration activities on Federal lands. The Secretary shall identify a lead agency within the Department of the Interior to develop this framework. One of

the goals of the framework shall be to identify what actions need to be taken in order to allow for commercial-scale geological carbon sequestration activities to be undertaken on Federal lands as expeditiously as possible.

CHAPTER 4—NATURAL RESOURCES AND WILDLIFE PROGRAMS

Subchapter A—Natural Resources Management and Climate Change

SEC. 7441. NATURAL RESOURCES MANAGEMENT COUNCIL ON CLIMATE CHANGE.

(a) ESTABLISHMENT.—The Secretary of the Interior shall establish a National Resources Management Council on Climate Change to address the impacts of climate change on Federal lands, the ocean environment, and the Federal water infrastructure. The Council shall include the head of each of the following agencies:

(1) The Bureau of Land Management.

(2) The National Park Service.

(3) United States Geological Survey.

(4) The United States Fish and Wildlife Service.

(5) The Forest Service.

(6) The Bureau of Reclamation.

(7) The Council on Environmental Quality.

(8) The Minerals Management Service.

(9) The Office of Surface Mining Reclamation and Enforcement.

(b) PLAN.—Not later than one year after the date of the enactment of this Act, the Secretary of the Interior shall submit a plan to Congress describing what the agencies listed in subsection (a) shall do both individually and cooperatively to accomplish the following:

(1) Working in cooperation with the United States Geological Survey, develop an interagency inventory and Geographic Information System database of United States ecosystems, water supplies, and water infrastructure vulnerable to climate change.

(2) Manage land, water, and ocean resources in a manner that takes into account projected climate change impacts, including but not limited to, prolonged periods of drought and changing hydrology.

(3) Develop consistent protocols to incorporate climate change impacts in land and water management decisions across land and water resources under the jurisdiction of those agencies listed in subsection (a).

(4) Incorporate the most current, peer-reviewed science on climate change and the economic, social, and ecological impacts of climate change into the de-

cision making process of those agencies listed in subsection (a).

(c) COORDINATION.—The activities of the Natural Resources Management Council on Climate Change shall be coordinated with the activities of the United States Global Change Research Program.

Subchapter B—National Policy and Strategy for Wildlife

SEC. 7451. SHORT TITLE.

This subchapter may be cited as the ''Global Warming Wildlife Survival Act''.

SEC. 7452. NATIONAL POLICY ON WILDLIFE AND GLOBAL WARMING.

It is the policy of the Federal Government, in cooperation with State, tribal, and affected local governments, other concerned public and private organizations, landowners, and citizens to use all practicable means and measures—

(1) to assist wildlife populations and their habitats in adapting to and surviving the effects of global warming; and

(2) to ensure the persistence and resilience of the wildlife of the United States, together with its habitat, as an essential part of our Nation's culture, landscape, and natural resources.

SEC. 7453. DEFINITIONS.

In this chapter:

(1) ECOLOGICAL PROCESSES.—The term ''ecological processes'' means the biological, chemical, and physical interactions between the biotic and abiotic components of ecosystems, including nutrient cycling, pollination, predator-prey relationships, soil formation, gene flow, hydrologic cycling, decomposition, and disturbance regimes such as fire and flooding.

(2) HABITAT LINKAGES.—The term ''habitat linkages'' means areas that connect wildlife habitat or potential wildlife habitat, and that facilitate the ability of wildlife to move within a landscape in response to the effects of global warming.

(3) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

(4) WILDLIFE.—The term ''wildlife'' means—

(A) any species of wild, free-ranging fauna, including fish and other aquatic species; and

(B) any fauna in a captive breeding program the object of which is to reintroduce individuals of a depleted indigenous species into previously occupied range.

(5) HABITAT.—The term ''habitat'' means the physical, chemical, and biological properties that are

used by wildlife for growth, reproduction, and survival, including aquatic and terrestrial plant communities, food, water, cover, and space, on a tract of land, in a body of water, or in an area or region.

SEC. 7454. NATIONAL STRATEGY.

(a) REQUIREMENT.—

(1) IN GENERAL.—The Secretary shall, within two years after the date of the enactment of this Act, on the basis of the best available science as provided by the science advisory board under section 7455, and in cooperation with State fish and wildlife agencies and Indian tribes, promulgate a national strategy for assisting wildlife populations and their habitats in adapting to the impacts of global warming.

(2) CONSULTATION AND COMMENT.—In developing the national strategy, the Secretary shall—

(A) consult with the Secretary of Agriculture, the Secretary of Commerce, the Administrator of the Environmental Protection Agency, local governments, conservation organizations, scientists, and other interested stakeholders; and

(B) provide opportunity for public comment.

(b) CONTENTS.—

(1) IN GENERAL.—The Secretary shall include in the national strategy prioritized goals and measures to—

(A) identify and monitor wildlife populations, including game species, likely to be adversely affected by global warming, with particular emphasis on wildlife populations at greatest need for conservation;

(B) identify and monitor coastal, marine, terrestrial, and freshwater habitat at greatest risk of being damaged by global warming;

(C) assist species in adapting to the impacts of global warming;

(D) protect, acquire, and restore wildlife habitat to build resilience to global warming;

(E) provide habitat linkages and corridors to facilitate wildlife movements in response to global warming;

(F) restore and protect ecological processes that sustain wildlife populations vulnerable to global warming; and

(G) incorporate consideration of climate change in, and integrate climate change adaptation strategies for wildlife and its habitat into,

the planning and management of Federal lands administered by the Department of the Interior and lands administered by the Forest Service.

(2) COORDINATION WITH OTHER PLANS.—In developing the national strategy, the Secretary shall to the maximum extent practicable—

(A) take into consideration research and information in State comprehensive wildlife conservation plans, the North American Waterfowl Management Plan, the National Fish Habitat Action Plan, and other relevant plans; and

(B) coordinate and integrate, to the extent consistent with the policy set forth in section 7452, the goals and measures identified in the national strategy with goals and measures identified in such plans.

(c) REVISION.—The Secretary shall revise the national strategy not later than five years after its initial promulgation, and not later than every ten years thereafter, to reflect new information on the impacts of global warming on wildlife and its habitat and advances in the development of strategies for adapting to or mitigating for such impacts.

(d) IMPLEMENTATION.—

(1) IMPLEMENTATION ON FEDERAL LAND SYSTEMS.—To achieve the goals of the national strategy and to implement measures for the conservation of wildlife and its habitat identified in the national strategy—

(A) the Secretary of the Interior shall exercise the authority of such Secretary under this title and other laws within the Secretary's jurisdiction pertaining to the administration of lands; and

(B) the Secretary of Agriculture shall exercise the authority of such Secretary under this title and other laws within the Secretary's jurisdiction pertaining to the administration of lands.

(2) WILDLIFE CONSERVATION PROGRAMS.—To the maximum extent practicable, the Secretary, the Secretary of Agriculture, and the Secretary of Commerce shall utilize their authorities under other laws to achieve the goals of the national strategy.

(e) LIMITATION ON EFFECT.—Nothing in this section creates new authority or expands existing authority for the Secretary to regulate the uses of private property.

SEC. 7455. ADVISORY BOARD.

(a) SCIENCE ADVISORY BOARD.—

(1) IN GENERAL.—The Secretary shall establish and appoint the members of a science advisory board comprised of not less than 10 and not more than 20 members recommended by the President of the National Academy of Sciences with expertise in wildlife biology, ecology, climate change and other relevant disciplines. The director of the National Global Warming and Wildlife Science Center established under subsection (b) shall be an ex officio member of the science advisory board.

(2) FUNCTIONS.—The science advisory board shall—

(A) provide scientific and technical advice and recommendations to the Secretary on the impacts of global warming on wildlife and its habitat, areas of habitat of particular importance for the conservation of wildlife populations affected by global warming, and strategies and mechanisms to assist wildlife populations and their habitats in adapting to the impacts of global warming in the management of Federal lands and in other Federal programs for wildlife conservation;

(B) advise the National Global Warming and Wildlife Science Center established under

subsection (b) and review the quality of the research programs of the Center; and

(C) advise the Secretary regarding the best science available for purposes of developing and revising the national strategy under section 7454.

(3) PUBLIC AVAILABILITY.—The advice and recommendations of the science advisory board shall be available to the public.

(b) NATIONAL GLOBAL WARMING AND WILDLIFE SCIENCE CENTER.—

(1) IN GENERAL.—The Secretary shall establish the National Global Warming and Wildlife Science Center within the United States Geological Survey.

(2) FUNCTIONS.—The National Global Warming and Wildlife Science Center shall—

(A) conduct scientific research on national issues related to the impacts of global warming on wildlife and its habitat and mechanisms for adaptation to, mitigation of, or prevention of such impacts;

(B) consult with and advise Federal land management agencies and Federal wildlife agencies regarding the impacts of global warming on wildlife and its habitat and mechanisms

for adaptation to or mitigation of such impacts, and the incorporation of information regarding such impacts and the adoption of mechanisms for adaptation or mitigation of such impacts in the management and planning for Federal lands and in the administration of Federal wildlife programs; and

(C) consult, and to the maximum extent practicable, collaborate with State and local agencies, universities, and other public and private entities regarding their research, monitoring, and other efforts to address the impacts of global warming on wildlife and its habitat.

(3) INTEGRATION WITH OTHER FEDERAL ACTIVITIES.—The Secretary, the Secretary of Agriculture, and the Secretary of Commerce shall ensure that research and other activities carried out pursuant to this section are integrated with climate change program research and activities carried out pursuant to other Federal law.

(c) DETECTION OF CHANGES.—The Secretary, the Secretary of Agriculture, and the Secretary of Commerce shall each exercise authorities under other laws to carry out programs to detect changes in wildlife abundance, dis-

tribution, and behavior related to global warming, including—

(1) conducting species inventories on Federal lands and in marine areas within the exclusive economic zone of the United States; and

(2) establishing and implementing robust, coordinated monitoring programs.

SEC. 7456. AUTHORIZATION OF APPROPRIATIONS.

(a) IMPLEMENTATION OF NATIONAL STRATEGY.—Of the amounts appropriated to carry out this subchapter for each fiscal year—

(1) 45 percent are authorized to be made available to Federal agencies to develop and implement the national strategy promulgated under section 7454 in the administration of the Federal land systems, of which—

(A) 35 percent shall be allocated to the Department of the Interior to—

(i) operate the National Global Warming and Wildlife Science Center established under section 7455; and

(ii) carry out the policy set forth in section 7452 and implement the national strategy in the administration of the National Park System the National Wildlife

Refuge System, and on the Bureau of Land Management's public lands; and

(B) 10 percent shall be allocated to the Department of Agriculture to carry out the policy set forth in section 7452 and implement the national strategy in the administration of the National Forest System;

(2) 25 percent are authorized to be made available to Federal agencies to carry out the policy set forth in section 7452 and to implement the national strategy through fish and wildlife programs, other than for the operation and maintenance of Federal lands, of which—

(A) 10 percent shall be allocated to the Department of the Interior to fund endangered species, migratory bird, and other fish and wildlife programs administered by the United States Fish and Wildlife Service, other than operations and maintenance of the national wildlife refuges; and

(B) 15 percent shall be allocated to the Department of the Interior for implementation of cooperative grant programs benefitting wildlife including the Cooperative Endangered Species Fund, Private Stewardship Grants, the

North American Wetlands Conservation Act, the Multinational Species Conservation Fund, the Neotropical Migratory Bird Conservation Fund, and the National Fish Habitat Action Plan, and used for activities that assist wildlife and its habitat in adapting to the impacts of global warming; and

(3) 30 percent are authorized to be made available for grants to States and Indian tribes through the State and tribal wildlife grants program authorized under section 7461, to—

(A) carry out activities that assist wildlife and its habitat in adapting to the impacts of global warming in accordance with State comprehensive wildlife conservation plans developed and approved under that program; and

(B) revise or supplement existing State comprehensive wildlife conservation plans as necessary to include specific strategies for assisting wildlife and its habitat in adapting to the impacts of global warming.

(b) AVAILABILITY.—

(1) IN GENERAL.—Funding is authorized to be made available to States and Indian tribes pursuant to this section subject to paragraphs (2) and (3).

(2) INITIAL 5-YEAR PERIOD.—During the 5-year period beginning on the effective date of this title, a State shall not be eligible to receive such funding unless the head of the State's wildlife agency has—

(A) approved, and provided to the Secretary, an explicit strategy to assist wildlife populations in adapting to the impacts of global warming; and

(B) incorporated such strategy as a supplement to the State's comprehensive wildlife conservation plan.

(3) SUBSEQUENT PERIOD.—After such 5-year period, a State shall not be eligible to receive such funding unless the State has submitted to the Secretary, and the Secretary has approved, a revision to its comprehensive wildlife conservation plan that—

(A) describes the impacts of global warming on the diversity and health of the State's wildlife populations and their habitat;

(B) describes and prioritizes proposed conservation actions to assist wildlife populations in adapting to such impacts;

(C) establishes programs for monitoring the impacts of global warming on wildlife populations and their habitats; and

(D) establishes methods for assessing the effectiveness of conservation actions taken to assist wildlife populations in adapting to such impacts and for adapting such actions to respond appropriately to new information or changing conditions.

(c) INTENT OF CONGRESS.—It is the intent of Congress that funding provided to Federal agencies and States pursuant to this subchapter supplement, and not replace, existing sources of funding for wildlife conservation.

Subchapter C—State and Tribal Wildlife Grants Program

SEC. 7461. STATE AND TRIBAL WILDLIFE GRANTS PROGRAM.

(a) AUTHORIZATION OF PROGRAM.—There is authorized to be established a State and Tribal Wildlife Grants Program to be administered by the Secretary of the Interior and to provide wildlife conservation grants to States and to the District of Columbia, Puerto Rico, Guam, the United States Virgin Islands, the Northern Mariana Islands, American Samoa, and federally recognized Indian

tribes for the planning, development, and implementation of programs for the benefit of wildlife and their habitat, including species that are not hunted or fished.

(b) ALLOCATION OF FUNDS.—

(1) IN GENERAL.—Of the amounts made available to carry out this section for each fiscal year—

(A) 10 percent shall be for a competitive grant program for Indian tribes that are not subject to the remaining provisions of this section;

(B) of the amounts remaining after the application of subparagraph (A), and after the deduction of the Secretary's administrative expenses to carry out this section—

(i) not more than one-half of 1 percent shall be allocated to each of the District of Columbia and to the Commonwealth of Puerto Rico; and

(ii) not more than one-fourth of 1 percent shall be allocated to each of Guam, American Samoa, the United States Virgin Islands, and the Commonwealth of the Northern Mariana Islands; and

(C) of the amount remaining after the application of subparagraphs (B) and (C), the secretary shall apportion among the States—

(i) one-third based on the ratio that the land area of each State bears to the total land area of all States; and

(ii) two-thirds based on the ratio that the population of each State bears to the total population of all States.

(2) ADJUSTMENTS.—The amounts apportioned under subparagraph (C) of paragraph (1) for a fiscal year shall be adjusted equitably so that no State is apportioned under such subparagraph a sum that is—

(A) less than 1 percent of the amount available for apportionment under that subparagraph that fiscal year; or

(B) more than 5 percent of such amount.

(c) COST SHARING.—

(1) PLAN DEVELOPMENT GRANTS.—The Federal share of the costs of developing or revising a comprehensive wildlife conservation plan shall not exceed 75 percent of the total costs of developing or revising such plan.

(2) PLAN IMPLEMENTATION GRANTS.—The Federal share of the costs of implementing an activity in an approved comprehensive wildlife conservation plan carried out with a grant under this section shall not exceed 50 percent of the total costs of such activities.

(3) PROHIBITION ON USE OF FEDERAL FUNDS.—The non-Federal share of costs of an activity carried out under this section shall not be paid with amounts derived from any Federal grant program.

(d) REQUIREMENT FOR PLAN.—

(1) IN GENERAL.—No State, territory, or other jurisdiction shall be eligible for a grant under this section unless it submits to the Secretary a comprehensive wildlife conservation plan that—

(A) complies with paragraph (2); and

(B) considers the broad range of the State, territory, or other jurisdiction's wildlife and associated habitats, with appropriate priority placed on those species with the greatest conservation need and taking into consideration the relative level of funding available for the conservation of those species.

(2) CONTENTS.—The comprehensive wildlife conservation plan must contain—

(A) information on the distribution and abundance of species of wildlife, including low and declining populations as the State, territory, or other jurisdiction's fish and wildlife agency considers appropriate, that are indicative of the diversity and health of the jurisdiction's wildlife;

(B) the location and relative condition of key habitats and community types essential to conservation of species identified in subparagraph (A);

(C) descriptions of problems which may adversely affect species identified in subparagraph (A) or their habitats, and priority research and survey efforts needed to identify factors that may assist in restoration and improved conservation of these species and habitats;

(D) descriptions of conservation actions proposed to conserve the identified species and habitats and priorities for implementing such actions;

(E) proposed plans for monitoring species identified in subparagraph (A) and their habitats, for monitoring the effectiveness of the conservation actions proposed in subparagraph (D), and for adapting these conservation actions to respond appropriately to new information or changing conditions;

(F) descriptions of procedures to review the comprehensive wildlife conservation plan at intervals not to exceed ten years;

(G) plans for coordinating the development, implementation, review, and revision of the comprehensive wildlife conservation plan with Federal, State, and local agencies and Indian tribes that manage significant land and water areas within the jurisdiction or administer programs that significantly affect the conservation of identified species and habitats; and

(H) provisions for broad public participation as an essential element of the development, revision, and implementation of the comprehensive wildlife conservation plan.

(e) SAVINGS CLAUSE.—State comprehensive wildlife strategies approved by the Secretary pursuant to previous congressional authorizations and appropriations Acts shall

remain in effect until such strategies expire or are revised in accordance with their terms. Except as specified in section 7456(b) with respect to funds made available under such section, conservation and education activities conducted or proposed to be conducted pursuant to such previously approved strategies shall remain authorized.

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

CHAPTER 5—OCEAN PROGRAMS

SEC. 7471. OCEAN POLICY, GLOBAL WARMING, AND ACIDIFICATION PROGRAM.

(a) DEVELOPMENT AND IMPLEMENTATION.—

(1) IN GENERAL.—The Secretary of Commerce, shall, within two years after the date of enactment of this Act, and on the basis of the best available science, develop and implement a national strategy using existing authorities and the authority provided in this section to support coastal State and Federal agency efforts to—

(A) predict, plan for, and mitigate the impacts on ocean and coastal ecosystems from global warming, relative sea level rise and ocean acidification; and

(B) ensure the recovery, resiliency, and health of ocean and coastal ecosystems.

(2) CONSULTATION AND COMMENT.—Before and during the development of the national strategy, the Secretary shall—

(A) consult with the Secretary of the Interior, the Administrator of the Environmental Protection Agency, the Regional Fishery Management Councils, coastal States, Indian tribes, local governments, conservation organizations, scientists, and other interested stakeholders; and

(B) provide opportunities for public notice and comment.

(b) CONTENTS.—

(1) IN GENERAL.—The Secretary shall include in the national strategy prioritized goals and measures to—

(A) incorporate climate change adaptation strategies into the planning and management of ocean and coastal programs and resources administered by the Department of Commerce;

(B) support restoration, protection, and enhancement of natural processes that minimize

the impacts of relative sea level rise, global warming, and ocean acidification;

(C) minimize the impacts of global warming and ocean acidification on marine species and their habitats;

(D) identify, protect, and restore ocean and coastal habitats needed to build healthy and resilient ecosystems;

(E) support the development of climate change resiliency plans under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.);

(F) provide technical assistance and training to other Federal agencies, States, local communities, universities, and other stakeholders; and

(G) identify additional research that is needed to better anticipate and plan for the impacts of global warming and ocean acidification on ocean and coastal resources.

(2) COORDINATION WITH OTHER PLANS.—In developing the national strategy, the Secretary shall—

(A) take into consideration research and information available in Federal, regional, and

State management and restoration plans and any other relevant reports and information; and

(B) encourage and take into account State and regional plans for protecting and restoring the health and resilience of ocean and coastal ecosystems.

(c) REVISION.—The Secretary shall revise the national strategy not later than 5 years after its promulgation, and not later than every 10 years thereafter, to reflect new information on the impacts of global warming, relative sea level rise, and acidification on ocean and coastal ecosystems and their resources and advances in the development of strategies for adapting to or mitigating for such impacts.

(d) SCIENCE ADVISORY BOARD.—

(1) CONSULTATION.—The Secretary shall consult with the National Oceanic and Atmospheric Administration's Science Advisory Board in the development and implementation of the strategy.

(2) REVIEW INFORMATION.—The Science Advisory Board shall periodically—

(A) review new information on the impacts of global warming, relative sea level rise, and acidification on ocean and coastal ecosystems and their resources and advances in the devel-

opment of strategies for adapting to or mitigating for such impacts; and

(B) provide that information to the Secretary.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to implement this section. Amounts appropriated shall be used for the exclusive purpose of carrying out the activities specified in this section.

(f) REPORT TO CONGRESS.—Copies of the strategy and implementation plan and any updates shall be provided to Congress.

SEC. 7472. PLANNING FOR CLIMATE CHANGE IN THE COASTAL ZONE.

(a) IN GENERAL.—The Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) is amended by adding at the end the following:

"CLIMATE CHANGE RESILIENCY PLANNING

"SEC. 320. (a) IN GENERAL.—The Secretary shall establish consistent with the national policies set forth in section 303 a coastal climate change resiliency planning and response program to—

"(1) provide assistance to coastal states to voluntarily develop coastal climate change resiliency plans pursuant to approved management programs approved under section 306, to minimize contribu-

tions to climate change and to prepare for and reduce the negative consequences that may result from climate change in the coastal zone; and

"(2) provide financial and technical assistance and training to enable coastal states to implement plans developed pursuant to this section through coastal states' enforceable policies.

"(b) GUIDELINES.—Within 180 days after the date of enactment of this section, the Secretary, in consultation with the coastal states, shall issue guidelines for the implementation of the grant program established under subsection (c).

"(c) CLIMATE CHANGE RESILIENCY PLANNING GRANTS.—

"(1) IN GENERAL.—The Secretary, subject to the availability of appropriations, may make a grant to any coastal state for the purpose of developing climate change resiliency plans pursuant to guidelines issued by the Secretary under subsection (b).

"(2) PLAN CONTENT.—A plan developed with a grant under this section shall include the following:

"(A) Identification of public facilities and public services, coastal resources of national significance, coastal waters, energy facilities, or other water uses located in the coastal zone

that are likely to be impacted by climate change.

"(B) Adaptive management strategies for land use to respond or adapt to changing environmental conditions, including strategies to protect biodiversity and establish habitat buffer zones, migration corridors, and climate refugia.

"(C) Requirements to initiate and maintain long-term monitoring of environmental change to assess coastal zone resiliency and to adjust when necessary adaptive management strategies and new planning guidelines to attain the policies under section 303.

"(3) STATE HAZARD MITIGATION PLANS.—Plans developed with a grant under this section shall be consistent with State hazard mitigation plans developed under State or Federal law.

"(4) ALLOCATION.—Grants under this section shall be available only to coastal states with management programs approved by the Secretary under section 306 and shall be allocated among such coastal states in a manner consistent with regulations promulgated pursuant to section 306(c).

"(5) PRIORITY.—In the awarding of grants under this subsection the Secretary may give priority

to any coastal state that has received grant funding to develop program changes pursuant to paragraphs (1), (2), (3), (5), (6), (7), and (8) of section 309(a).

"(6) TECHNICAL ASSISTANCE.—The Secretary may provide technical assistance to a coastal state consistent with section 310 to ensure the timely development of plans supported by grants awarded under this subsection.

"(7) FEDERAL APPROVAL.—In order to be eligible for a grant under subsection (d), a coastal state must have its plan developed under this section approved by the Secretary.

"(d) COASTAL RESILIENCY PROJECT GRANTS.—

"(1) IN GENERAL.—The Secretary, subject to the availability of appropriations, may make grants to any coastal state that has a climate change resiliency plan approved under subsection (c)(7), in order to support projects that implement strategies contained within such plans.

"(2) PROGRAM REQUIREMENTS.—The Secretary within 90 days after approval of the first plan approved under subsection (c)(7), shall publish in the Federal Register requirements regarding applications, allocations, eligible activities, and all terms and conditions for grants awarded under this sub-

section. No less than 30 percent of the funds appropriated in any fiscal year for grants under this subsection shall be awarded through a merit-based competitive process.

"(3) ELIGIBLE ACTIVITIES.—The Secretary may award grants to coastal states to implement projects in the coastal zone to address stress factors in order to improve coastal climate change resiliency, including the following:

"(A) Activities to address physical disturbances within the coastal zone, especially activities related to public facilities and public services, tourism, sedimentation, and other factors negatively impacting coastal waters, and fisheries-associated habitat destruction or alteration.

"(B) Monitoring, control, or eradication of disease organisms and invasive species.

"(C) Activities to address the loss, degradation or fragmentation of wildlife habitat through projects to establish marine and terrestrial habitat buffers, wildlife refugia or networks thereof, and preservation of migratory wildlife corridors and other transition zones.

"(D) Implementation of projects to reduce, mitigate, or otherwise address likely impacts caused by natural hazards in the coastal zone, including sea level rise, coastal inundation, coastal erosion and subsidence, severe weather events such as cyclonic storms, tsunamis and other seismic threats, and fluctuating Great Lakes water levels.

"(E) Provide technical training and assistance to local coastal policy makers to increase awareness of science, management, and technology information related to climate change and adaptation strategies.".

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 318(a) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1464) is further amended by adding at the end the following:

"(4) for grants under section 320(c) and (d), such sums as are necessary.".

(c) INTENT OF CONGRESS.—Nothing in this section shall be construed to require any coastal state to amend or modify its approved management program pursuant to section 306(e) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455(e)), or to extend the enforceable policies of a coastal state beyond the coastal zone as iden-

tified in the coastal state's approved management program.

SEC. 7473. ENHANCING CLIMATE CHANGE PREDICTIONS.

(a) SHORT TITLE.—This section may be cited as the ''National Integrated Coastal and Ocean Observation Act of 2007''.

(b) PURPOSES.—The purposes of this section are the following:

(1) Establish a National Integrated Coastal and Ocean Observation System comprised of Federal and non-Federal components, coordinated at the national level by the National Ocean Research Leadership Council and at the regional level by a network of Regional Information Coordination Entities, that includes in situ, remote, and other coastal and ocean observations, technologies, and data management and communication systems, to gather specific coastal and ocean data variables and to ensure the timely dissemination and availability of usable observation data—

(A) to support national defense, marine commerce, energy production, scientific research, ecosystem-based marine and coastal resource management, weather and marine fore-

casting, public safety and public outreach training and education; and

(B) to promote greater public awareness and stewardship of the Nation's ocean, coastal, and Great Lakes resources and the general public welfare.

(2) Improve the Nation's capability to measure, track, explain, and predict events related directly and indirectly to weather and climate change, natural climate variability, and interactions between the oceanic and atmospheric environments, including the Great Lakes.

(3) Authorize activities to promote basic and applied research to develop, test, and deploy innovations and improvements in coastal and ocean observation technologies, modeling systems, and other scientific and technological capabilities to improve our conceptual understanding of weather and climate, ocean atmosphere dynamics, global climate change, and physical, chemical, and biological dynamics of the ocean and coastal and Great Lakes environments.

(c) DEFINITIONS.—In this section:

(1) COUNCIL.—The term ''Council'' means the National Ocean Research Leadership Council re-

ferred to in section 7902 of title 10, United States Code.

(2) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the National Oceanic and Atmospheric Administration.

(3) FEDERAL ASSETS.—The term ''Federal assets'' means all relevant nonclassified civilian coastal and ocean observations, technologies, and related modeling, research, data management, basic and applied technology research and development, and public education and outreach programs, that are managed by member agencies of the Council.

(4) INTERAGENCY WORKING GROUP.—The term ''Interagency Working Group'' means the Interagency Working Group on Ocean Observations as established by the U.S. Ocean Policy Committee Subcommittee on Ocean Science and Technology pursuant to Executive Order 13366 signed December 17, 2004.

(5) NON-FEDERAL ASSETS.—The term ''non-Federal assets'' means all relevant coastal and ocean observations, technologies, related basic and applied technology research and development, and public education and outreach programs that are integrated into the System and are managed through States,

regional organizations, universities, nongovernmental organizations, or the private sector.

(6) REGIONAL INFORMATION COORDINATION ENTITIES.—

(A) IN GENERAL.—The term ''Regional Information Coordination Entity'', subject to subparagraphs (B) and (C), means an organizational body that is certified or established by the lead Federal agency designated in subsection (d)(3)(C)(iii) and coordinating State, Federal, local, and private interests at a regional level with the responsibility of engaging the private and public sectors in designing, operating, and improving regional coastal and ocean observing systems in order to ensure the provision of data and information that meet the needs of user groups from the respective regions.

(B) INCLUDED ASSOCIATIONS.—Such term includes Regional Associations as described by the System Plan.

(C) LIMITATION.—Nothing in this section shall be construed to invalidate existing certifications, contracts, or agreements between Re-

gional Associations and other elements of the System.

(7) SYSTEM.—The term ''System'' means the National Integrated Coastal and Ocean Observation System established under subsection (d).

(8) SYSTEM PLAN.—The term ''System Plan'' means the plan contained in the document entitled ''Ocean.US Publication No. 9, The First Integrated Ocean Observing System (IOOS) Development Plan''.

(d) NATIONAL INTEGRATED COASTAL AND OCEAN OBSERVING SYSTEM.—

(1) ESTABLISHMENT.—The President, acting through the Council, shall establish a National Integrated Coastal and Ocean Observation System to fulfill the purposes set forth in subsection (b) and the System plan and to fulfill the Nation's international obligations to contribute to the global earth observation system of systems and the global ocean observing system.

(2) SUPPORT OF PURPOSES.—The head of each agency that is a member of the Interagency Working Group shall support the purposes of this section.

(3) AVAILABILITY OF DATA.—The head of each Federal agency that has administrative jurisdiction

over a Federal asset shall make available data that are produced by that asset and that are not otherwise restricted for integration, management, and dissemination by the System.

(4) ENHANCING ADMINISTRATION AND MANAGEMENT.—The head of each Federal agency that has administrative jurisdiction over a Federal asset may take appropriate actions to enhance internal agency administration and management to better support, integrate, finance, and utilize observation data, products, and services developed under this section to further its own agency mission and responsibilities.

(5) PARTICIPATION IN REGIONAL INFORMATION COORDINATION ENTITY.—The head of each Federal agency that has administrative jurisdiction over a Federal asset may participate in regional information coordination entity activities.

(6) NON-FEDERAL ASSETS.—Non-Federal assets shall be coordinated by the Interagency Working Group or by Regional Information Coordination Entities.

(e) POLICY OVERSIGHT, ADMINISTRATION, AND REGIONAL COORDINATION.—

(1) NATIONAL OCEAN RESEARCH LEADERSHIP COUNCIL.—The National Ocean Research Leadership Council shall be responsible for establishing broad coordination and long-term operations plans, policies, protocols, and standards for the System consistent with the policies, goals, and objectives contained in the System Plan, and coordination of the System with other earth observing activities.

(2) INTERAGENCY WORKING GROUP.—The Interagency Working Group shall, with respect to the System, be responsible for—

(A) implementation of operations plans and policies developed by the Council;

(B) development of and transmittal to Congress at the time of submission of the President's annual budget request an annual coordinated, comprehensive System budget;

(C) identification of gaps in observation coverage or needs for capital improvements of both Federal assets and non-Federal assets;

(D) establishment of data management and communication protocols and standards;

(E) establishment of required observation data variables;

(F) development of certification standards for all non-Federal assets or Regional Information Coordination Entities to be eligible for integration into the System;

(G) subject to the availability of appropriations, establish through one or more participating Federal agencies, in consultation with the System Advisory Committee established under paragraph (5), a competitive matching grant or other program to promote research and development of innovative observation technologies including testing and field trials; and

(H) periodically review and recommend to the Council revisions to the System Plan.

(3) LEAD FEDERAL AGENCY.—The Administrator shall function as the lead Federal agency for the System. The Administrator may establish an Interagency Program Coordinating Office to facilitate the Administrator's responsibilities as the lead Federal agency for System oversight and management. The Administrator shall—

(A) implement policies, protocols, and standards established by the Council and delegated by the Interagency Working Group;

(B) promulgate regulations to integrate the participation of non-Federal assets into the System and enter into and oversee contracts and agreements with Regional Information Coordination Entities to effect this purpose;

(C) implement a competitive funding process for the purpose of assigning contracts and agreements to Regional Information Coordination Entities;

(D) certify or establish Regional Information Coordination Entities to coordinate State, Federal, local, and private interests at a regional level with the responsibility of engaging private and public sectors in designing, operating, and improving regional coastal and ocean observing systems in order to ensure the provision of data and information that meet the needs of user groups from the respective regions;

(E) formulate a process by which gaps in observation coverage or needs for capital improvements of Federal assets and non-Federal assets of the System can be identified by the Regional Information Coordination Entities, the Administrator, or other members of the System

and transmitted to the Interagency Working Group;

(F) be responsible for the coordination, storage, management, and dissemination of observation data gathered through the System to all end-user communities;

(G) implement a program of public education and outreach to improve public awareness of global climate change and effects on the ocean, coastal, and Great Lakes environment; and

(H) report annually to the Council through the Interagency Working Group on the accomplishments, operational needs, and performance of the System to achieve the purposes of this title and the System Plan.

(4) REGIONAL INFORMATION COORDINATION ENTITY.—To be certified or established under paragraph (3)(D), a Regional Information Coordination Entity must be certified or established by contract or agreement by the Administrator, and must agree to—

(A) gather required System observation data and other requirements specified under this section and the System plan;

(B) identify gaps in observation coverage or needs for capital improvements of Federal assets and non-Federal assets of the System, and transmit such information to the Interagency Working Group via the Administrator;

(C) demonstrate an organizational structure and strategic operational plan to ensure the efficient and effective administration of programs and assets to support daily data observations for integration into the System;

(D) comply with all financial oversight requirements established by the Administrator, including requirements relating to audits; and

(E) demonstrate a capability to work with other governmental and nongovernmental entities at all levels to identify and provide information products of the System for multiple users within the service area of the Regional Information Coordination Entities and otherwise.

(5) SYSTEM ADVISORY COMMITTEE.—

(A) IN GENERAL.—The Administrator shall establish a System Advisory Committee, which shall provide advice as may be requested by the Administrator or the Interagency Working Group.

(B) PURPOSE.—The purpose of the System Advisory Committee is to advise the Administrator and the Interagency Working Group on—

(i) administration, operation, management, and maintenance of the System, including integration of Federal and non-Federal assets and data management and communication aspects of the System, and fulfillment of the purposes specified under subsection (b);

(ii) expansion and periodic modernization and upgrade of technology components of the System;

(iii) identification of end-user communities, their needs for information provided by the System, and the System's effectiveness in disseminating information to end-user communities and the general public; and

(iv) any other purpose identified by the Administrator or the Interagency Working Group.

(C) MEMBERS.—

(i) IN GENERAL.—The System Advisory Committee shall be composed of members appointed by the Administrator. Members shall be qualified by education, training, and experience to evaluate scientific and technical information related to the design, operation, maintenance, or use of the System, or use of data products provided through the System.

(ii) TERMS OF SERVICE.—Members shall be appointed for 3-year terms, renewable once. A vacancy appointment shall be for the remainder of the unexpired term of the vacancy, and an individual so appointed may subsequently be appointed for 2 full 3-year terms if the remainder of the unexpired term is less than one year.

(iii) CHAIRPERSON.—The Administrator shall designate a chairperson from among the members of the System Advisory Committee.

(iv) APPOINTMENT.—Members of the System Advisory Committee shall be appointed as special Government employees

for purposes of section 202(a) of title 18, United States Code.

(D) ADMINISTRATIVE PROVISIONS.—

(i) REPORTING.—The System Advisory Committee shall report to the Administrator and the Interagency Working Group, as appropriate.

(ii) ADMINISTRATIVE SUPPORT.—The Administrator shall provide administrative support to the System Advisory Committee.

(iii) MEETINGS.—The System Advisory Committee shall meet at least once each year, and at other times at the call of the Administrator, the Interagency Working Group, or the chairperson.

(iv) COMPENSATION AND EXPENSES.—Members of the System Advisory Committee shall not be compensated for service on that Committee, but may be allowed travel expenses, including per diem in lieu of subsistence, in accordance with subchapter I of chapter 57 of title 5, United States Code.

(v) EXPIRATION.—Section 14 of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the System Advisory Committee.

(6) CIVIL LIABILITY.—For purposes of determining liability arising from the dissemination and use of observation data gathered pursuant to this section, any non-Federal asset or Regional Information Coordination Entity that is certified under paragraph (3)(D) and that is participating in the System shall be considered to be part of the National Oceanic and Atmospheric Administration. Any employee of such a non-Federal asset or Regional Information Coordination Entity, while operating within the scope of his or her employment in carrying out the purposes of this section, with respect to tort liability, is deemed to be an employee of the Federal Government.

(f) INTERAGENCY FINANCING, GRANTS, CONTRACTS, AND AGREEMENTS.—

(1) IN GENERAL.—The member departments and agencies of the Council, subject to the availability of appropriations, may participate in interagency financing and share, transfer, receive, obligate, and expend funds appropriated to any member

agency for the purposes of carrying out any administrative or programmatic project or activity to further the purposes of this section, including support for the Interagency Working Group, the Interagency Coordinating Program Office, a common infrastructure, and integration to expand or otherwise enhance the System.

(2) JOINT CENTERS AND AGREEMENTS.—Member Departments and agencies of the Council shall have the authority to create, support, and maintain joint centers, and to enter into and perform such contracts, leases, grants, and cooperative agreements as may be necessary to carry out the purposes of this section and fulfillment of the System Plan.

(g) APPLICATION WITH OTHER LAWS.—Nothing in this section supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

(h) REPORT TO CONGRESS.—

(1) IN GENERAL.—Not later than two years after the date of enactment of this section, the Administrator through the Council shall submit to Congress a report that describes the status of the System and progress made to achieve the purposes of

this section and the goals identified under the System Plan.

(2) CONTENTS.—The report shall include discussion of the following:

(A) Identification of Federal and non-Federal assets as determined by the Council that have been integrated into the System, including assets essential to the gathering of required observation data variables necessary to meet the respective missions of Council agencies.

(B) A review of procurements, planned or initiated, by each Council agency to enhance, expand, or modernize the observation capabilities and data products provided by the System, including data management and communication subsystems.

(C) An assessment regarding activities to integrate Federal and non-Federal assets, nationally and on the regional level, and discussion of the performance and effectiveness of Regional Information Coordination Entities to coordinate regional observation operations.

(D) An evaluation of progress made by the Council to achieve the purposes of this section and the goals identified under the System Plan.

(E) Recommendations for operational improvements to enhance the efficiency, accuracy, and overall capability of the System.

(3) BIENNIAL UPDATE.—Two years after the transmittal of the initial report prepared pursuant to this subsection and biennially thereafter, the Administrator, through the Council, shall submit to Congress an update of the initial report.

(i) PUBLIC-PRIVATE USE POLICY.—The Council shall develop a policy within 6 months after the date of the enactment of this section that defines processes for making decisions about the roles of the Federal Government, the States, Regional Information Coordination Entities, the academic community, and the private sector in providing to end-user communities environmental information, products, technologies, and services related to the System. The Council shall publish the policy in the Federal Register for public comment for a period not less than 60 days. Nothing in this subsection shall be construed to require changes in policy in effect on the date of the enactment of this Act.

(j) INDEPENDENT COST ESTIMATE.—The Interagency Working Group, through the Administrator and the Director of the National Science Foundation, shall obtain within one year after the date of the enactment of

this section an independent cost estimate for operations and maintenance of existing Federal assets of the System, and planned or anticipated acquisition, operation, and maintenance of new Federal assets for the System, including operation facilities, observation equipment, modeling and software, data management and communication, and other essential components. The independent cost estimate shall be transmitted unabridged and without revision by the Administrator to Congress.

(k) INTENT OF CONGRESS.—It is the intent of Congress that funding provided to agencies of the Council to implement this section shall supplement, and not replace, existing sources of funding for other programs. It is the further intent of Congress that agencies of the Council shall not enter into contracts or agreements for the development or procurement of new Federal assets for the System that are estimated to be in excess of $250,000,000 in life-cycle costs without first providing adequate notice to Congress and opportunity for review and comment.

Subtitle E—Royalties Under Offshore Oil and Gas Leases

SEC. 7501. SHORT TITLE.

This subtitle may be cited as the ''Royalty Relief for American Consumers Act of 2007''.

SEC. 7502. PRICE THRESHOLDS FOR ROYALTY SUSPENSION PROVISIONS.

The Secretary of the Interior shall agree to a request by any lessee to amend any lease issued for any Central and Western Gulf of Mexico tract during the period of January 1, 1998, through December 31, 1999, to incorporate price thresholds applicable to royalty suspension provisions, that are equal to or less than the price thresholds described in clauses (v) through (vii) of section 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)). Any amended lease shall impose the new or revised price thresholds effective October 1, 2006. Existing lease provisions shall prevail through September 30, 2006.

SEC. 7503. CLARIFICATION OF AUTHORITY TO IMPOSE PRICE THRESHOLDS FOR CERTAIN LEASE SALES.

Congress reaffirms the authority of the Secretary of the Interior under section 8(a)(1)(H) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(1)(H)) to vary, based on the price of production from a lease, the suspension of royalties under any lease subject to section 304 of the Outer Continental Shelf Deep Water Royalty Relief Act (Public Law 104–58; 43 U.S.C. 1337 note).

SEC. 7504. ELIGIBILITY FOR NEW LEASES AND THE TRANSFER OF LEASES; CONSERVATION OF RESOURCES FEES.

(a) ISSUANCE OF NEW LEASES.—

(1) IN GENERAL.—The Secretary shall not issue any new lease that authorizes the production of oil or natural gas in the Gulf of Mexico under the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.) to a person described in paragraph (2) unless—

(A) the person has renegotiated each covered lease with respect to which the person is a lessee, to modify the payment responsibilities of the person to include price thresholds that are equal to or less than the price thresholds described in clauses (v) through (vii) of section 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)); or

(B) the person has—

(i) paid all fees established by the Secretary under subsection (b) that are due with respect to each covered lease for which the person is a lessee; or

(ii) entered into an agreement with the Secretary under which the person is obligated to pay such fees.

(2) PERSONS DESCRIBED.—A person referred to in paragraph (1) is a person that—

(A) is a lessee that—

(i) holds a covered lease on the date on which the Secretary considers the issuance of the new lease; or

(ii) was issued a covered lease before the date of enactment of this Act, but transferred the covered lease to another person or entity (including a subsidiary or affiliate of the lessee) after the date of enactment of this Act; or

(B) any other person or entity who has any direct or indirect interest in, or who derives any benefit from, a covered lease;

(3) MULTIPLE LESSEES.—

(A) IN GENERAL.—For purposes of paragraph (1), if there are multiple lessees that own a share of a covered lease, the Secretary may implement separate agreements with any lessee with a share of the covered lease that modifies the payment responsibilities with respect to the share of the lessee to include price thresholds that are equal to or less than the price thresholds described in clauses (v) through (vii) of

section 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)).

(B) TREATMENT OF SHARE AS COVERED LEASE.—Beginning on the effective date of an agreement under subparagraph (A), any share subject to the agreement shall not constitute a covered lease with respect to any lessees that entered into the agreement.

(b) CONSERVATION OF RESOURCES FEES.—

(1) IN GENERAL.—Not later than 60 days after the date of enactment of this Act, the Secretary of the Interior by regulation shall establish—

(A) a conservation of resources fee for producing Federal oil and gas leases in the Gulf of Mexico; and

(B) a conservation of resources fee for nonproducing Federal oil and gas leases in the Gulf of Mexico.

(2) PRODUCING LEASE FEE TERMS.—The fee under paragraph (1)(A)—

(A) subject to subparagraph (C), shall apply to covered leases that are producing leases;

(B) shall be set at $9 per barrel for oil and $1.25 per million Btu for gas, respectively, in 2005 dollars; and

(C) shall apply only to production of oil or gas occurring—

(i) in any calendar year in which the arithmetic average of the daily closing prices for light sweet crude oil on the New York Mercantile Exchange (NYMEX) exceeds $34.73 per barrel for oil and $4.34 per million Btu for gas in 2005 dollars; and

(ii) on or after October 1, 2006.

(3) NONPRODUCING LEASE FEE TERMS.—The fee under paragraph (1)(B)—

(A) subject to subparagraph (C), shall apply to leases that are nonproducing leases;

(B) shall be set at $3.75 per acre per year in 2005 dollars; and

(C) shall apply on and after October 1, 2006.

(4) TREATMENT OF RECEIPTS.—Amounts received by the United States as fees under this subsection shall be treated as offsetting receipts.

(c) TRANSFERS.—A lessee or any other person who has any direct or indirect interest in, or who derives a benefit from, a lease shall not be eligible to obtain by sale or other transfer (including through a swap, spinoff, servicing, or other agreement) any covered lease, the economic benefit of any covered lease, or any other lease for the production of oil or natural gas in the Gulf of Mexico under the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.), unless—

(1) the lessee or other person has—

(A) renegotiated all covered leases of the lessee or other person; and

(B) entered into an agreement with the Secretary to modify the terms of all covered leases of the lessee or other person to include limitations on royalty relief based on market prices that are equal to or less than the price thresholds described in clauses (v) through (vii) of section 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)); or

(2) the lessee or other person has—

(A) paid all fees established by the Secretary under subsection (b) that are due with respect to each covered lease for which the person is a lessee; or

(B) entered into an agreement with the Secretary under which the person is obligated to pay such fees.

(d) DEFINITIONS.—In this section—

(1) COVERED LEASE.—The term ''covered lease'' means a lease for oil or gas production in the Gulf of Mexico that is—

(A) in existence on the date of enactment of this Act;

(B) issued by the Department of the Interior under section 304 of the Outer Continental Shelf Deep Water Royalty Relief Act (43 U.S.C. 1337 note; Public Law 104–58); and

(C) not subject to limitations on royalty relief based on market price that are equal to or less than the price thresholds described in clauses (v) through (vii) of section 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)).

(2) LESSEE.—The term ''lessee'' includes any person or other entity that controls, is controlled by, or is in or under common control with, a lessee.

(3) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

SEC. 7505. REPEAL OF CERTAIN TAXPAYER SUBSIDIZED ROYALTY RELIEF FOR THE OIL AND GAS INDUSTRY.

(a) REPEAL OF PROVISIONS OF ENERGY POLICY ACT OF 2005.—The following provisions of the Energy Policy Act of 2005 (Public Law 109–58) are repealed:

(1) Section 344 (42 U.S.C. 15904; relating to incentives for natural gas production from deep wells in shallow waters of the Gulf of Mexico).

(2) Section 345 (42 U.S.C. 15905; relating to royalty relief for deep water production in the Gulf of Mexico).

(b) PROVISIONS RELATING TO PLANNING AREAS OFFSHORE ALASKA.—Section 8(a)(3)(B) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(B)) is amended by striking ''and in the Planning Areas offshore Alaska'' after ''West longitude''.

(c) PROVISIONS RELATING TO NAVAL PETROLEUM RESERVE IN ALASKA.—Section 107 of the Naval Petroleum Reserves Production Act of 1976 (as transferred, redesignated, moved, and amended by section 347 of the Energy Policy Act of 2005 (119 Stat. 704)) is amended—

(1) in subsection (i) by striking paragraphs (2) through (6); and

(2) by striking subsection (k).

Subtitle F—Additional Provisions

SEC. 7601. OIL SHALE COMMUNITY IMPACT ASSISTANCE.

(a) ESTABLISHMENT OF FUND.—There is established on the books of the Treasury of the United States a separate account to be known as the Oil Shale Community Impact Assistance Fund (hereinafter in this section referred to as the ''Fund''). The Fund shall be administered by the Secretary of the Interior acting through the Director of the Bureau of Land Management.

(b) CONTENTS.—

(1) IN GENERAL.—There shall be credited to the Fund—

(A) all amounts paid to the United States as bonus bids in connection with the award of commercial oil shale leases pursuant to section 369(e) of the Energy Policy Act of 2005 (42 U.S.C. 15927(e)); and

(B) an amount equal to 25 percent of the portion of the other amounts deposited into the Treasury pursuant to section 35(a) of the Mineral Leasing Act (30 U.S.C. 191) with respect to such leases, that remains after deduction of all payments made pursuant to of such section.

(2) TERMINATION OF CREDITING OF ROYALTIES.—Paragraph (1)(B) shall not apply to royalties

received by the United States under a commercial oil shale lease after the end of the 10-year period beginning on the date on which the first amount of royalty under such lease is paid to the United States.

(c) DISTRIBUTION.—

(1) IN GENERAL.—The Secretary, subject to the availability of appropriations, shall use amounts in the Fund to annually pay to each county in which is located land subject to a commercial oil shale lease referred to in subsection (b)(1) an amount equal to the amount credited to the Fund during the preceding year pursuant to section (b) with respect to such lease. If such land is located in more than one county, the Secretary shall allocate such payment among such counties on the basis of the relative amount of lands subject to the lease within each such county.

(2) USE OF PAYMENT.—Amounts paid to a county under this subsection shall be used by the county for the planning, construction, and maintenance of public facilities and the provision of public services.

SEC. 7602. ADDITIONAL NOTICE REQUIREMENTS.

(a) PERMITTEES.—At least 45 days before offering lands for lease pursuant to section 17(f) of the Mineral

Leasing Act (30 U.S.C. 226(f)), the Secretary of the Interior shall provide notice of the proposed leasing activity in writing to the holders of special recreation permits for commercial use, competitive events, and other organized activities on the lands being offered for lease.

(b) CONSERVATION EASEMENT HOLDERS.—

(1) If the holder of a conservation easement or similar property interest in the surface estate of lands eligible for leasing under the Mineral Leasing Act has informed the Secretary of the Interior of the existence of such property interest, the Secretary shall treat such holder as a surface estate owner for purposes of section 7221(d) of this title.

(2) As soon as possible after the date of enactment of this Act, the Secretary of the Interior shall establish a means for holders of property interests described in paragraph (1) to provide notice of such interests, and shall inform the public regarding such means.

SEC. 7603. DAVIS-BACON ACT.

All laborers and mechanics employed by contractors and subcontractors on construction, repair, or alteration projects that are funded in whole or in part or otherwise authorized under sections 7304 or 7306 shall be paid wages at rates not less than those prevailing on similar

construction in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. The Secretary of Labor shall, with respect to the labor standards in this title, have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

SEC. 7604. ROAN PLATEAU, COLORADO.

(a) LEASES FOR TOP OF PLATEAU.—

(1) PROHIBITION.—The Secretary of the Interior shall include in each lease under the Mineral Leasing Act (30 U.S.C. 181 et seq.) for lands to which this subsection applies a prohibition of surface occupancy for purposes of exploration for or development of oil or gas.

(2) APPLICATION.—This subsection applies to all Federal lands in Colorado that were formerly designated as Naval Oil Shale Reserves 1 and 3 that are located within the rim boundary, as such boundary is depicted on Map 1 accompanying the Bureau of Land Management's final Resource Management Plan Amendment and Environmental Impact Statement for the Roan Plateau Planning Area dated August, 2006.

(b) REPORT ON CLEANUP STATUS.—No later than 30 days after the date of enactment of this Act—

(1) the Secretary of the Treasury shall provide to the appropriate Committees of Congress a report detailing the total amounts received by the United States under leases of Federal lands in Colorado formerly designated as Naval Oil Shale Reserves 1 and 3 pursuant to section 7439 of title 10, United States Code, and covered into the Treasury pursuant to subsection (f) of such section; and

(2) the Secretary of the Interior shall provide to the appropriate committees of Congress a report—

(A) detailing the amounts expended by the United States for environmental restoration, waste management, and environmental compliance activities with respect to the lands described in paragraph (1), to repay the cost to the United States to originally install wells, gathering lines, and related equipment on such lands, and any other cost incurred by the United States with respect to such lands; and

(B) stating what further actions are required to complete the needed environmental restoration, waste management, and environmental compliance activities with regard to such

lands, the estimated cost of such activities, and when the Secretary expects such activities will be completed.

SEC. 7605. REPORT ON STATUS OF REGULATIONS WITH RESPECT TO WIND ENERGY PROJECTS.

Not later than 30 days after the date of the enactment of this Act, the Secretary of the Interior, acting through the Minerals Management Service, shall submit a report to Congress on the status of regulations required to be issued under section 8(p)(8)) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(p)(8)) with respect to the production of wind energy on the Outer Continental Shelf.

TITLE VIII—TRANSPORTATION AND INFRASTRUCTURE

SEC. 8001. SHORT TITLE.

This title may be cited as the ''Transportation Energy Security and Climate Change Mitigation Act of 2007''.

SEC. 8002. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress makes the following findings:

(1) Evidence that atmospheric warming and climate change are occurring is unequivocal.

(2) Observed and anticipated impacts of climate change can result in economic harm and environmental damage to the United States and the world.

(3) The Nation's water resources, ecosystems, and infrastructure will be under increasing stress and pressure in coming decades, particularly due to climate change.

(4) Greenhouse gases, such as carbon dioxide, methane, and nitrous oxides, can lead to atmospheric warming and climate change.

(5) Transportation and buildings are among the leading sources of greenhouse gas emissions.

(6) Increased reliance on energy efficient and renewable energy transportation and public buildings can strengthen our Nation's energy security and mitigate the effects of climate change by cutting greenhouse gas emissions.

(7) The Federal Government can strengthen our Nation's energy security and mitigate the effects of climate change by promoting energy efficient transportation and public buildings, creating incentives for the use of alternative fuel vehicles and renewable energy, and ensuring sound water resource and natural disaster preparedness planning.

(b) PURPOSES.—The purposes of this title are to strengthen our Nation's energy security and mitigate the effects of climate change by promoting energy efficient transportation and public buildings, creating incentives for the use of alternative fuel vehicles and renewable energy, and ensuring sound water resource and natural disaster preparedness planning.

Subtitle A—Department of Transportation

SEC. 8101. CENTER FOR CLIMATE CHANGE AND ENVIRONMENT.

(a) IN GENERAL.—Section 102 of title 49, United States Code, is amended—

(1) by redesignating subsection (g) as subsection (h); and

(2) by adding after subsection (f) the following:

''(g) CENTER FOR CLIMATE CHANGE AND ENVIRONMENT.—

''(1) ESTABLISHMENT.—There is established in the Department a Center for Climate Change and Environment to plan, coordinate, and implement—

''(A) department-wide research, strategies, and actions under the Department's statutory authority to reduce transportation-related en-

ergy use and mitigate the effects of climate change; and

"(B) department-wide research strategies and action to address the impacts of climate change on transportation systems and infrastructure.

"(2) CLEARINGHOUSE.—The Center shall establish a clearinghouse of low-cost solutions, including projects that are being or could be implemented under the congestion mitigation and air quality improvement program of section 149 of title 23, to reduce congestion and transportation-related energy use and air pollution and mitigate the effects of climate change.".

(b) COORDINATION.—The Center for Climate Change and Environment of the Department of Transportation shall coordinate its activities with the United States Global Change Research Program.

(c) LOW-COST CONGESTION SOLUTIONS.—

(1) STUDY.—The Center for Climate Change and Environment, in coordination with the Environmental Protection Agency, shall conduct a study to examine fuel efficiency savings and clean air impacts of major transportation projects, to identify low-cost solutions to reduce congestion and transportation-re-

lated energy use and mitigate the effects of climate change, to alleviate such problems as railroad pricing that may force freight off the more fuel efficient railroads and onto less fuel efficient trucks, and to examine the potential fuel savings from intelligent transportation systems that help businesses and consumers to plan their travel and avoid delays, including web-based real-time transit information systems, congestion information systems, carpool information systems, parking information systems, freight route management, and traffic management systems.

(2) REPORT.—Not later than one year after the date of enactment of this title, the Secretary of Transportation, in coordination with the Administrator of the Environmental Protection Agency, shall transmit to the Committee on Transportation and Infrastructure and the Committee on Energy and Commerce of the House of Representatives a report on low-cost solutions to reducing congestion and transportation-related energy use and mitigating the effects of climate change.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for the Center to carry out its duties under section 102(g) of title

49, United States Code, such sums as may be necessary for fiscal years 2008 through 2011.

Subtitle B—Highways and Transit

PART 1—PUBLIC TRANSPORTATION

SEC. 8201. GRANTS TO IMPROVE PUBLIC TRANSPORTATION SERVICES.

(a) AUTHORIZATIONS OF APPROPRIATIONS.—

(1) URBANIZED AREA FORMULA GRANTS.—In addition to amounts allocated under section 5338(b)(2)(B) of title 49, United States Code, to carry out section 5307 of such title, there is authorized to be appropriated $750,000,000 for each of fiscal years 2008 and 2009 to carry out such section 5307. Such funds shall be apportioned in accordance with section 5336 (other than subsections (i)(1) and (j)) of such title but may not be combined or commingled with any other funds apportioned under such section 5336.

(2) FORMULA GRANTS FOR OTHER THAN URBANIZED AREAS.—In addition to amounts allocated under section 5338(b)(2)(G) of title 49, United States Code, to carry out section 5311 of such title, there is authorized to be appropriated $100,000,000 for each of fiscal years 2008 and 2009 to carry out such section 5311. Such funds shall be apportioned

in accordance with such section 5311 but may not be combined or commingled with any other funds apportioned under such section 5311.

(b) USE OF FUNDS.—Notwithstanding sections 5307 and 5311 of title 49, United States Code, the Secretary of Transportation may make grants under such sections from amounts appropriated under subsection (a) only for one or more of the following:

(1) If the recipient of the grant is reducing, or certifies to the Secretary that, during the term of the grant, the recipient will reduce one or more fares the recipient charges for public transportation, or in the case of subsection (f) of such section 5311, intercity bus service, those operating costs of equipment and facilities being used to provide the public transportation, or in the case of subsection (f) of such section 5311, intercity bus service, that the recipient is no longer able to pay from the revenues derived from such fare or fares as a result of such reduction.

(2) If the recipient of the grant is expanding, or certifies to the Secretary that, during the term of the grant, the recipient will expand public transportation service, or in the case of subsection (f) of such section 5311, intercity bus service, those oper-

ating and capital costs of equipment and facilities being used to provide the public transportation service, or in the case of subsection (f) of such section 5311, intercity bus service, that the recipient incurs as a result of the expansion of such service.

(c) FEDERAL SHARE.—Notwithstanding any other provision of law, the Federal share of the costs for which a grant is made under this section shall be 100 percent.

(d) PERIOD OF AVAILABILITY.—Funds appropriated under this section shall remain available for a period of 2 fiscal years.

SEC. 8202. INCREASED FEDERAL SHARE FOR CLEAN AIR ACT COMPLIANCE.

Notwithstanding section 5323(i)(1) of title 49, United States Code, a grant for a project to be assisted under chapter 53 of such title during fiscal years 2008 and 2009 that involves acquiring clean fuel or alternative fuel vehicle-related equipment or facilities for the purposes of complying with or maintaining compliance with the Clean Air Act (42 U.S.C. 7401 et seq.) shall be for 100 percent of the net project cost of the equipment or facility attributable to compliance with that Act.

SEC. 8203. COMMUTER RAIL TRANSIT ENHANCEMENT.

(a) AMENDMENT.—Part E of subtitle V of title 49, United States Code, is amended by adding at the end the following:

"CHAPTER 285—COMMUTER RAIL TRANSIT ENHANCEMENT

"Sec.
"28501.Definitions
"28502. Surface Transportation Board mediation of trackage use requests.
"28503. Surface Transportation Board mediation of rights-of-way use requests.
"28504. Applicability of other laws.
"28505. Rules and regulations.

"§ 28501. Definitions

"In this chapter—

"(1) the term 'Board' means the Surface Transportation Board;

"(2) the term 'capital work' means maintenance, restoration, reconstruction, capacity enhancement, or rehabilitation work on trackage that would be treated, in accordance with generally accepted accounting principles, as a capital item rather than an expense;

"(3) the term 'fixed guideway transportation' means public transportation (as defined in section 5302(a)(10)) provided on, by, or using a fixed guideway (as defined in section 5302(a)(4));

"(4) the term 'public transportation authority' means a local governmental authority (as defined in

section 5302(a)(6)) established to provide, or make a contract providing for, fixed guideway transportation;

''(5) the term 'rail carrier' means a person, other than a governmental authority, providing common carrier railroad transportation for compensation subject to the jurisdiction of the Board under chapter 105;

''(6) the term 'segregated fixed guideway facility' means a fixed guideway facility constructed within the railroad right-of-way of a rail carrier but physically separate from trackage, including relocated trackage, within the right-of-way used by a rail carrier for freight transportation purposes; and

''(7) the term 'trackage' means a railroad line of a rail carrier, including a spur, industrial, team, switching, side, yard, or station track, and a facility of a rail carrier.

"§ 28502. Surface Transportation Board mediation of trackage use requests

''If, after a reasonable period of negotiation, a public transportation authority cannot reach agreement with a rail carrier to use trackage of, and have related services provided by, the rail carrier for purposes of fixed guideway transportation, the public transportation authority or the

rail carrier may apply to the Board for nonbinding mediation. The Board shall conduct the nonbinding mediation in accordance with the mediation process of section 1109.4 of title 49, Code of Federal Regulations, as in effect on the date of enactment of this section.

"§ 28503. Surface Transportation Board mediation of rights-of-way use requests

''If, after a reasonable period of negotiation, a public transportation authority cannot reach agreement with a rail carrier to acquire an interest in a railroad right-of-way for the construction and operation of a segregated fixed guideway facility, the public transportation authority or the rail carrier may apply to the Board for nonbinding mediation. The Board shall conduct the nonbinding mediation in accordance with the mediation process of section 1109.4 of title 49, Code of Federal Regulations, as in effect on the date of enactment of this section.

"§ 28504. Applicability of other laws

''Nothing in this chapter shall be construed to limit a rail transportation provider's right under section 28103(b) to enter into contracts that allocate financial responsibility for claims.

"§ 28505. Rules and regulations

''Not later than 180 days after the date of enactment of this section, the Board shall issue such rules and regulations as may be necessary to carry out this chapter.''.

(b) CLERICAL AMENDMENT.—The table of chapters of such subtitle is amended by adding after the item relating to chapter 283 the following:

"285. COMMUTER RAIL TRANSIT ENHANCEMENT ..... 28501''.

SEC. 8204. CAPITAL COST OF CONTRACTING VANPOOL PILOT PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Transportation shall establish and implement a pilot program to carry out vanpool demonstration projects in not more than 3 urbanized areas and not more than 2 other than urbanized areas.

(b) PILOT PROGRAM.—

(1) IN GENERAL.—Notwithstanding section 5323(i) of title 49, United States Code, for each project selected for participation in the pilot program, the Secretary shall allow the non-Federal share provided by a recipient of assistance for a capital project under chapter 53 of such title to include the amounts described in paragraph (2).

(2) CONDITIONS ON ACQUISITION OF VANS.—The amount expended by a private provider of public transportation by vanpool for the acquisition of vans

to be used by such private provider in the recipient's service area, excluding any amounts the provider may have received in Federal, State, or local government assistance for such acquisition, if the private provider enters into a legally binding agreement with the recipient that requires the private provider to use all revenues it receives in providing public transportation in such service area, in excess of its operating costs, for the purpose of acquiring vans to be used by the private provider in such service area.

(c) PROGRAM TERM.—The Secretary may approve an application for a vanpool demonstration project for fiscal years 2008 through 2009.

(d) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Banking, Housing, and Urban Affairs of the Senate, a report containing an assessment of the costs, benefits, and efficiencies of the vanpool demonstration projects.

PART 2—FEDERAL-AID HIGHWAYS

SEC. 8251. INCREASED FEDERAL SHARE FOR CMAQ PROJECTS.

Section 120(c) of title 23, United States Code, is amended—

(1) in the subsection heading by striking ''FOR CERTAIN SAFETY PROJECTS'';

(2) by striking ''The Federal share'' and inserting the following:

''(1) CERTAIN SAFETY PROJECTS.—The Federal share''; and

(3) by adding at the end the following:

''(2) CMAQ PROJECTS.—The Federal share payable on account of a project or program carried out under section 149 with funds obligated in fiscal year 2008 or 2009, or both, shall be 100 percent of the cost thereof.''.

SEC. 8252. DISTRIBUTION OF RESCISSIONS.

(a) IN GENERAL.—Any unobligated balances of amounts that are appropriated from the Highway Trust Fund for a fiscal year, and apportioned under chapter 1 of title 23, United States Code, before, on, or after the date of enactment of this Act and that are rescinded after such date of enactment shall be distributed within each State (as defined in section 101 of such title) among all programs for which funds are apportioned under such

chapter for such fiscal year, to the extent sufficient funds remain available for obligation, in the ratio that the amount of funds apportioned for each program under such chapter for such fiscal year, bears to the amount of funds apportioned for all such programs under such chapter for such fiscal year.

(b) TREATMENT OF TRANSPORTATION ENHANCEMENT SET-ASIDE AND FUNDS SUBALLOCATED TO SUBSTATE AREAS.—Funds set aside under sections 133(d)(2) and 133(d)(3) of title 23, United States Code, shall be treated as being apportioned under chapter 1 of such title for purposes of subsection (a).

SEC. 8253. SENSE OF CONGRESS REGARDING USE OF COMPLETE STREETS DESIGN TECHNIQUES.

It is the sense of Congress that in constructing new roadways or rehabilitating existing facilities, State and local governments should employ policies designed to accommodate all users, including motorists, pedestrians, cyclists, transit riders, and people of all ages and abilities, in order to—

(1) serve all surface transportation users by creating a more interconnected and intermodal system;

(2) create more viable transportation options; and

(3) facilitate the use of environmentally friendly options, such as public transportation, walking, and bicycling.

Subtitle C—Railroad and Pipeline Transportation

PART 1—RAILROADS

SEC. 8301. ADVANCED TECHNOLOGY LOCOMOTIVE GRANT PILOT PROGRAM.

(a) IN GENERAL.—The Secretary of Transportation, in coordination with the Administrator of the Environmental Protection Agency, shall establish and carry out a pilot program for making grants to railroad carriers (as defined in section 20102 of title 49, United States Code) and State and local governments—

(1) for assistance in purchasing hybrid locomotives, including hybrid switch locomotives; and

(2) to demonstrate the extent to which such locomotives increase fuel economy, reduce emissions, and lower costs of operation.

(b) LIMITATION.—Notwithstanding subsection (a), no grant under this section may be used to fund the costs of emissions reductions that are mandated under Federal, State, or local law.

(c) GRANT CRITERIA.—In selecting applicants for grants under this section, the Secretary shall consider—

(1) the level of energy efficiency that would be achieved by the proposed project;

(2) the extent to which the proposed project would assist in commercial deployment of hybrid locomotive technologies;

(3) the extent to which the proposed project complements other private or governmental partnership efforts to improve air quality or fuel efficiency in a particular area; and

(4) the extent to which the applicant demonstrates innovative strategies and a financial commitment to increasing energy efficiency and reducing greenhouse gas emissions of its railroad operations.

(d) COMPETITIVE GRANT SELECTION PROCESS.—

(1) APPLICATIONS.—A railroad carrier or State or local government seeking a grant under this section shall submit for approval by the Secretary an application for the grant under this section containing such information as the Secretary may require to receive a grant under this section.

(2) COMPETITIVE SELECTION.—The Secretary shall conduct a national solicitation for applications for grants under this section and shall select grantees on a competitive basis.

(e) FEDERAL SHARE.—The Federal share of the cost of a project under this section shall not exceed 90 percent of the project cost.

(f) REPORT.—Not later than 3 years after the date of enactment of this Act, the Secretary shall submit to Congress a report on the results of the pilot program carried out under this section.

(g) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary $10,000,000 for each of the fiscal years 2008 through 2011 to carry out this section. Such funds shall remain available until expended.

SEC. 8302. CAPITAL GRANTS FOR RAILROAD TRACK.

(a) AMENDMENT.—Chapter 223 of title 49, United States Code, is amended to read as follows:

"CHAPTER 223—CAPITAL GRANTS FOR RAILROAD TRACK

"Sec.
"22301. Capital grants for railroad track.

"§ 22301. Capital grants for railroad track

"(a) ESTABLISHMENT OF PROGRAM.—

"(1) ESTABLISHMENT.—The Secretary of Transportation shall establish a program of capital grants for the rehabilitation, preservation, or improvement of railroad track (including roadbed, bridges, and related track structures) of class II and

class III railroads. Such grants shall be for rehabilitating, preserving, or improving track used primarily for freight transportation to a standard ensuring that the track can be operated safely and efficiently, including grants for rehabilitating, preserving, or improving track to handle 286,000 pound railcars. Grants may be provided under this chapter—

"(A) directly to the class II or class III railroad; or

"(B) with the concurrence of the class II or class III railroad, to a State or local government.

"(2) STATE COOPERATION.—Class II and class III railroad applicants for a grant under this chapter are encouraged to utilize the expertise and assistance of State transportation agencies in applying for and administering such grants. State transportation agencies are encouraged to provide such expertise and assistance to such railroads.

"(3) INTERIM REGULATIONS.—Not later than December 31, 2007, the Secretary shall issue temporary regulations to implement the program under this section. Subchapter II of chapter 5 of title 5 does not apply to a temporary regulation issued

under this paragraph or to an amendment to such a temporary regulation.

"(4) FINAL REGULATIONS.—Not later than October 1, 2008, the Secretary shall issue final regulations to implement the program under this section.

"(b) MAXIMUM FEDERAL SHARE.—The maximum Federal share for carrying out a project under this section shall be 80 percent of the project cost. The non-Federal share may be provided by any non-Federal source in cash, equipment, or supplies. Other in-kind contributions may be approved by the Secretary on a case-by-case basis consistent with this chapter.

"(c) PROJECT ELIGIBILITY.—For a project to be eligible for assistance under this section the track must have been operated or owned by a class II or class III railroad as of the date of the enactment of this chapter.

"(d) USE OF FUNDS.—Grants provided under this section shall be used to implement track capital projects as soon as possible. In no event shall grant funds be contractually obligated for a project later than the end of the third Federal fiscal year following the year in which the grant was awarded. Any funds not so obligated by the end of such fiscal year shall be returned to the Secretary for reallocation.

"(e) EMPLOYEE PROTECTION.—The Secretary shall require as a condition of any grant made under this section that the recipient railroad provide a fair arrangement at least as protective of the interests of employees who are affected by the project to be funded with the grant as the terms imposed under section 11326(a), as in effect on the date of the enactment of this chapter.

"(f) LABOR STANDARDS.—

"(1) PREVAILING WAGES.—The Secretary shall ensure that laborers and mechanics employed by contractors and subcontractors in construction work financed by a grant made under this section will be paid wages not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor under subchapter IV of chapter 31 of title 40 (commonly known as the 'Davis-Bacon Act'). The Secretary shall make a grant under this section only after being assured that required labor standards will be maintained on the construction work.

"(2) WAGE RATES.—Wage rates in a collective bargaining agreement negotiated under the Railway Labor Act (45 U.S.C. 151 et seq.) are deemed for purposes of this subsection to comply with the subchapter IV of chapter 31 of title 40.

"(g) STUDY.—The Secretary shall conduct a study of the projects carried out with grant assistance under this section to determine the public interest benefits associated with the light density railroad networks in the States and their contribution to a multimodal transportation system. Not later than March 31, 2009, the Secretary shall report to Congress any recommendations the Secretary considers appropriate regarding the eligibility of light density rail networks for Federal infrastructure financing.

"(h) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary of Transportation $250,000,000 for each of fiscal years 2008 through 2011 for carrying out this section.".

(b) CLERICAL AMENDMENT.—The item relating to chapter 223 in the table of chapters of subtitle V of title 49, United States Code, is amended to read as follows:

"223. CAPITAL GRANTS FOR RAILROAD TRACK ..... 22301".

PART 2—PIPELINES

SEC. 8311. FEASIBILITY STUDIES.

(a) IN GENERAL.—The Secretary of Energy, in coordination with the Secretary of Transportation, shall conduct feasibility studies for the construction of pipeline dedicated to the transportation of ethanol.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall submit to the Committee on Transportation and Infra-

structure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on such feasibility studies.

(c) STUDY FACTORS.—Feasibility studies funded under this part shall include consideration of—

(1) existing or potential barriers to the construction of pipelines dedicated to the transportation of ethanol, including technical, siting, financing, and regulatory barriers;

(2) market risk, including throughput risk;

(3) regulatory, financing, and siting options that would mitigate such risk and help ensure the construction of pipelines dedicated to the transportation of ethanol;

(4) ensuring the safe transportation of ethanol and preventive measures to ensure pipeline integrity; and

(5) such other factors as the Secretary of Energy considers appropriate.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy to carry out this section $1,000,000 for each of the fiscal years 2008 and 2009, to remain available until expended.

Subtitle D—Maritime Transportation

PART 1—GENERAL PROVISIONS

SEC. 8401. SHORT SEA TRANSPORTATION INITIATIVE.

(a) IN GENERAL.—Title 46, United States Code, is amended by adding after chapter 555 the following:

"CHAPTER 556—SHORT SEA TRANSPORTATION

"Sec. 55601. Short sea transportation program.
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"§ 55601. Short sea transportation program

"(a) ESTABLISHMENT.—The Secretary of Transportation shall establish a short sea transportation program and designate short sea transportation projects to be conducted under the program to mitigate landside congestion.

"(b) PROGRAM ELEMENTS.—The program shall encourage the use of short sea transportation through the development and expansion of—

"(1) documented vessels;

"(2) shipper utilization;

"(3) port and landside infrastructure; and

"(4) marine transportation strategies by State and local governments.

1 "(c) SHORT SEA TRANSPORTATION ROUTES.—The
2 Secretary shall designate short sea transportation routes
3 as extensions of the surface transportation system to focus
4 public and private efforts to use the waterways to relieve
5 landside congestion along coastal corridors. The Secretary
6 may collect and disseminate data for the designation and
7 delineation of short sea transportation routes.

8 "(d) PROJECT DESIGNATION.—The Secretary may
9 designate a project to be a short sea transportation project
10 if the Secretary determines that the project may—

11 "(1) offer a waterborne alternative to available
12 landside transportation services using documented
13 vessels; and

14 "(2) provide transportation services for pas-
15 sengers or freight (or both) that may reduce conges-
16 tion on landside infrastructure using documented
17 vessels.

18 "(e) ELEMENTS OF PROGRAM.—For a short sea
19 transportation project designated under this section, the
20 Secretary of Transportation may—

21 "(1) promote the development of short sea
22 transportation services;

23 "(2) coordinate, with ports, State departments
24 of transportation, localities, other public agencies,
25 and the private sector and on the development of

landside facilities and infrastructure to support short sea transportation services; and

"(3) develop performance measures for the short sea transportation program.

"(f) MULTISTATE, STATE AND REGIONAL TRANSPORTATION PLANNING.—The Secretary, in consultation with Federal entities and State and local governments, shall develop strategies to encourage the use of short sea transportation for transportation of passengers and cargo. The Secretary shall—

"(1) assess the extent to which States and local governments include short sea transportation and other marine transportation solutions in their transportation planning;

"(2) encourage State departments of transportation to develop strategies, where appropriate, to incorporate short sea transportation, ferries, and other marine transportation solutions for regional and interstate transport of freight and passengers in their transportation planning; and

"(3) encourage groups of States and multi-State transportation entities to determine how short sea transportation can address congestion, bottlenecks, and other interstate transportation challenges.

"§ 55602. Cargo and shippers

''(a) MEMORANDUMS OF AGREEMENT.—The Secretary of Transportation shall enter into memorandums of understanding with the heads of other Federal entities to transport federally owned or generated cargo using a short sea transportation project designated under section 55601 when practical or available.

''(b) SHORT-TERM INCENTIVES.—The Secretary shall consult shippers and other participants in transportation logistics and develop proposals for short-term incentives to encourage the use of short sea transportation.

"§ 55603. Financing of short sea transportation projects

''(a) AUTHORITY TO MAKE LOAN GUARANTEE.—The Secretary of Transportation, subject to the availability of appropriations, may make a loan guarantee for the financing of the construction, reconstruction, or reconditioning of a vessel that will be used for a short sea transportation project designated under section 55601.

''(b) TERMS AND CONDITIONS.—In making a loan guarantee under this section, the Secretary shall use the authority, terms, and conditions that apply to a loan guarantee made under chapter 537.

''(c) GENERAL LIMITATIONS.—The total unpaid principal amount of obligations guaranteed under this

chapter and outstanding at one time may not exceed $2,000,000,000.

"(d) FULL FAITH AND CREDIT.—The full faith and credit of the United States Government is pledged to the payment of a guarantee made under this chapter, for both principal and interest, including interest (as may be provided for in the guarantee) accruing between the date of default under a guaranteed obligation and the date of payment in full of the guarantee.

"(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $25,000,000 to carry out this section for each of fiscal years 2008 through 2011.

"§ 55604. Interagency coordination

"The Secretary of Transportation shall establish a board to identify and seek solutions to impediments hindering effective use of short sea transportation. The board shall include representatives of the Environmental Protection Agency and other Federal, State, and local governmental entities and private sector entities.

"§ 55605. Research on short sea transportation

"The Secretary of Transportation, in consultation with the Administrator of the Environmental Protection Agency, may conduct research on short sea transportation, regarding—

"(1) the environmental and transportation benefits to be derived from short sea transportation alternatives for other forms of transportation;

"(2) technology, vessel design, and other improvements that would reduce emissions, increase fuel economy, and lower costs of short sea transportation and increase the efficiency of intermodal transfers; and

"(3) identify and seek solutions to impediments to short sea transportation projects designated under section 55601.

"§ 55606. Short sea transportation defined

"In this chapter, the term 'short sea transportation' means the carriage by vessel of cargo—

"(1) that is—

"(A) contained in intermodal cargo containers and loaded by crane on the vessel; or

"(B) loaded on the vessel by means of wheeled technology; and

"(2) that is—

"(A) loaded at a port in the United States and unloaded at another port in the United States or a port in Canada located in the Great Lakes Saint Lawrence Seaway System; or

"(B) loaded at a port in Canada located in the Great Lakes Saint Lawrence Seaway System and unloaded at a port in the United States.".

(b) CLERICAL AMENDMENT.—The table of chapters at the beginning of subtitle V of such title is amended by inserting after the item relating to chapter 555 the following:

"556. Short Sea Transportation .....55601".

(c) REGULATIONS.—

(1) INTERIM REGULATIONS.—Not later than December 31, 2007, the Secretary of Transportation shall issue temporary regulations to implement the program under this section. Subchapter II of chapter 5 of title 5, United States Code, does not apply to a temporary regulation issued under this paragraph or to an amendment to such a temporary regulation.

(2) FINAL REGULATIONS.—Not later than October 1, 2008, the Secretary shall issue final regulations to implement the program under this section.

SEC. 8402. SHORT SEA SHIPPING ELIGIBILITY FOR CAPITAL CONSTRUCTION FUND.

(a) DEFINITION OF QUALIFIED VESSEL.—Section 53501 of title 46, United States Code, is amended—

(1) in paragraph (5)(A)(iii) by striking ''or noncontiguous domestic'' and inserting ''noncontiguous domestic, or short sea transportation trade''; and

(2) by inserting after paragraph (6) the following:

''(7) SHORT SEA TRANSPORTATION TRADE.—The term 'short sea transportation trade' means the carriage by vessel of cargo—

''(A) that is—

''(i) contained in intermodal cargo containers and loaded by crane on the vessel; or

''(ii) loaded on the vessel by means of wheeled technology; and

''(B) that is—

''(i) loaded at a port in the United States and unloaded at another port in the United States or a port in Canada located in the Great Lakes Saint Lawrence Seaway System; or

''(ii) loaded at a port in Canada located in the Great Lakes Saint Lawrence Seaway System and unloaded at a port in the United States.''.

(b) ALLOWABLE PURPOSE.—Section 53503(b) of such title is amended by striking ''or noncontiguous domestic trade'' and inserting ''noncontiguous domestic, or short sea transportation trade''.

SEC. 8403. REPORT.

Not later than one year after the date of enactment of this Act, the Secretary of Transportation, in consultation with the Administrator of the Environmental Protection Agency, shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the short sea transportation program established under the amendments made by section 8401. The report shall include a description of the activities conducted under the program, and any recommendations for further legislative or administrative action that the Secretary considers appropriate.

PART 2—MARITIME POLLUTION

SEC. 8451. REFERENCES.

Wherever in this part an amendment or repeal is expressed in terms of an amendment to or a repeal of a section or other provision, the reference shall be considered to be made to a section or other provision of the Act to Prevent Pollution from Ships (33 U.S.C. 1901 et seq.).

SEC. 8452. DEFINITIONS.

Section 2(a) (33 U.S.C. 1901(a)) is amended—

(1) by redesignating paragraphs (1) through (12) as paragraphs (2) through (13), respectively;

(2) by inserting before paragraph (2) (as so redesignated) the following:

''(1) 'Administrator' means the Administrator of the Environmental Protection Agency.'';

(3) in paragraph (5) (as so redesignated) by striking ''and V'' and inserting ''V, and VI'';

(4) in paragraph (6) (as so redesignated) by striking '''discharge' and 'garbage' and 'harmful substance' and 'incident'" and inserting '''discharge', 'emission', 'garbage', 'harmful substance', and 'incident'"; and

(5) by redesignating paragraphs (7) through (13) (as redesignated) as paragraphs (8) through (14), respectively, and inserting after paragraph (6) (as redesignated) the following:

''(7) 'navigable waters' includes the territorial sea of the United States (as defined in Presidential Proclamation 5928 of December 27, 1988) and the internal waters of the United States;''.

SEC. 8453. APPLICABILITY.

Section 3 (33 U.S.C. 1902) is amended—

(1) in subsection (a)—

(A) by striking ''and'' at the end of paragraph (3);

(B) by striking the period at the end of paragraph (4) and inserting ''; and''; and

(C) by adding at the end the following:

''(5) with respect to Annex VI to the Convention, and other than with respect to a ship referred to in paragraph (1)—

''(A) to a ship that is in a port, shipyard, offshore terminal, or the internal waters of the United States;

''(B) to a ship that is bound for, or departing from, a port, shipyard, offshore terminal, or the internal waters of the United States, and is in—

''(i) the navigable waters of the United States;

''(ii) an emission control area designated pursuant to section 4; or

''(iii) any other area that the Administrator, in consultation with the Secretary and each State that is adjacent to any part of the proposed area, has designated by order as being an area from which emissions from ships are of concern with re-

spect to protection of public health, welfare, or the environment;

"(C) to a ship that is entitled to fly the flag of, or operating under the authority of, a party to Annex VI, and is in—

"(i) the navigable waters of the United States;

"(ii) an emission control area designated under section 4; or

"(iii) any other area that the Administrator, in consultation with the Secretary and each State that is adjacent to any part of the proposed area, has designated by order as being an area from which emissions from ships are of concern with respect to protection of public health, welfare, or the environment; and

"(D) to the extent consistent with international law, to any other ship that is in—

"(i) the exclusive economic zone of the United States;

"(ii) the navigable waters of the United States;

"(iii) an emission control area designated under section 4; or

"(iv) any other area that the Administrator, in consultation with the Secretary and each State in which any part of the area is located, has designated by order as being an area from which emissions from ships are of concern with respect to protection of public health, welfare, or the environment.";

(2) in subsection (b)—

(A) in paragraph (1) by striking "paragraph (2)" and inserting "paragraphs (2) and (3)"; and

(B) by adding at the end the following:

"(3) With respect to Annex VI the Administrator, or the Secretary, as relevant to their authorities pursuant to this Act, may determine that some or all of the requirements under this Act shall apply to one or more classes of public vessels, except that such a determination by the Administrator shall have no effect unless the head of the Department or agency under which the vessels operate concurs in the determination. This paragraph does not apply during time of war or during a declared national emergency.";

(3) by redesignating subsections (c) through (g) as subsections (d) through (h), respectively;

(4) by inserting after subsection (b) the following:

"(c) APPLICATION TO OTHER PERSONS.—This Act shall apply to all persons to the extent necessary to ensure compliance with Annex VI to the Convention."; and

(5) in subsection (e), as redesignated—

(A) by inserting "or the Administrator, consistent with section 4 of this Act," after "Secretary";

(B) by striking "of section (3)" and inserting "of this section"; and

(C) by striking "Protocol, including regulations conforming to and giving effect to the requirements of Annex V" and inserting "Protocol (or the applicable Annex), including regulations conforming to and giving effect to the requirements of Annex V and Annex VI".

SEC. 8454. ADMINISTRATION AND ENFORCEMENT.

Section 4 (33 U.S.C. 1903) is amended—

(1) by redesignating subsections (b) and (c) as subsections (c) and (d), respectively;

(2) by inserting after subsection (a) the following:

"(b) DUTY OF THE ADMINISTRATOR.—In addition to other duties specified in this Act, the Administrator and

the Secretary, respectively, shall have the following duties and authorities:

"(1) The Administrator shall, and no other person may, issue Engine International Air Pollution Prevention certificates in accordance with Annex VI and the International Maritime Organization's Technical Code on Control of Emissions of Nitrogen Oxides from Marine Diesel Engines, on behalf of the United States for a vessel of the United States as that term is defined in section 116 of title 46, United States Code. The issuance of Engine International Air Pollution Prevention certificates shall be consistent with any applicable requirements of the Clean Air Act (42 U.S.C. 7401 et seq.) or regulations prescribed under that Act.

"(2) The Administrator shall have authority to administer regulations 12, 13, 14, 15, 16, 17, 18, and 19 of Annex VI to the Convention.

"(3) The Administrator shall, only as specified in section 8(f), have authority to enforce Annex VI of the Convention."; and

(3) in subsection (c), as redesignated—

(A) by redesignating paragraph (2) as paragraph (4);

(B) by inserting after paragraph (1) the following:

''(2) In addition to the authority the Secretary has to prescribe regulations under this Act, the Administrator shall also prescribe any necessary or desired regulations to carry out the provisions of regulations 12, 13, 14, 15, 16, 17, 18, and 19 of Annex VI to the Convention.

''(3) In prescribing any regulations under this section, the Secretary and the Administrator shall consult with each other, and with respect to regulation 19, with the Secretary of the Interior.''; and

(C) by adding at the end the following:

''(5) No standard issued by any person or Federal authority, with respect to emissions from tank vessels subject to regulation 15 of Annex VI to the Convention, shall be effective until 6 months after the required notification to the International Maritime Organization by the Secretary.''.

SEC. 8455. CERTIFICATES.

Section 5 (33 U.S.C. 1904) is amended—

(1) in subsection (a) by striking ''The Secretary'' and inserting ''Except as provided in section 4(b)(1), the Secretary'';

(2) in subsection (b) by striking ''Secretary under the authority of the MARPOL protocol.'' and

inserting ''Secretary or the Administrator under the authority of this Act.''; and

(3) in subsection (e) by striking ''environment.'' and inserting ''environment or the public health and welfare.''.

SEC. 8456. RECEPTION FACILITIES.

Section 6 (33 U.S.C. 1905) is amended—

(1) in subsection (a) by adding at the end the following:

''(3) The Secretary and the Administrator, after consulting with appropriate Federal agencies, shall jointly prescribe regulations setting criteria for determining the adequacy of reception facilities for receiving ozone depleting substances, equipment containing such substances, and exhaust gas cleaning residues at a port or terminal, and stating any additional measures and requirements as are appropriate to ensure such adequacy. Persons in charge of ports and terminals shall provide reception facilities, or ensure that reception facilities are available, in accordance with those regulations. The Secretary and the Administrator may jointly prescribe regulations to certify, and may issue certificates to the effect, that a port's or terminal's facilities for receiving ozone depleting substances, equipment containing such substances, and exhaust gas cleaning residues from ships are adequate.'';

(2) in subsection (b) by inserting ''or the Administrator'' after ''Secretary'';

(3) in subsection (e) by striking paragraph (2) and inserting the following:

''(2) The Secretary may deny the entry of a ship to a port or terminal required by the MARPOL Protocol, this Act, or regulations prescribed under this section relating to the provision of adequate reception facilities for garbage, ozone depleting substances, equipment containing those substances, or exhaust gas cleaning residues, if the port or terminal is not in compliance with the MARPOL Protocol, this Act, or those regulations.'';

(4) in subsection (f)(1) by striking ''Secretary is'' and inserting ''Secretary and the Administrator are''; and

(5) in subsection (f)(2) by striking ''(A)''.

SEC. 8457. INSPECTIONS.

Section 8(f) (33 U.S.C. 1907(f)) is amended to read as follows:

''(f)(1) The Secretary may inspect a ship to which this Act applies as provided under section 3(a)(5), to verify whether the ship is in compliance with Annex VI to the Convention and this Act.

''(2) If an inspection under this subsection or any other information indicates that a violation has occurred,

the Secretary, or the Administrator in a matter referred by the Secretary, may undertake enforcement action under this section.

''(3) Notwithstanding subsection (b) and paragraph (2) of this subsection, the Administrator shall have all of the authorities of the Secretary, as specified in subsection (b) of this section, for the purposes of enforcing regulations 17 and 18 of Annex VI to the Convention to the extent that shoreside violations are the subject of the action and in any other matter referred to the Administrator by the Secretary.''.

SEC. 8458. AMENDMENTS TO THE PROTOCOL.

Section 10(b) (33 U.S.C. 1909(b)) is amended by inserting ''or the Administrator as provided for in this Act,'' after ''Secretary,''.

SEC. 8459. PENALTIES.

Section 9 (33 U.S.C. 1908) is amended—

(1) by striking ''Protocol,,'' each place it appears and inserting ''Protocol,'';

(2) in subsection (b) by inserting '', or the Administrator as provided for in this Act'' after ''Secretary'' the first place it appears;

(3) in subsection (b)(2), by inserting '', or the Administrator as provided for in this Act,'' after ''Secretary'';

(4) in the matter after paragraph (2) of subsection (b)—

(A) by inserting ", or the Administrator as provided for in this Act" after "Secretary" the first place it appears; and

(B) by inserting ", or the Administrator as provided for in this Act," after "Secretary" the second and third places it appears;

(5) in subsection (c) by inserting ", or the Administrator as provided for in this Act," after "Secretary" each place it appears; and

(6) in subsection (f) by inserting ", or the Administrator as provided for in this Act" after "Secretary" the first place appears.

SEC. 8460. EFFECT ON OTHER LAWS.

Section 15 (33 U.S.C. 1911) is amended to read as follows:

"SEC. 15. EFFECT ON OTHER LAWS.

"Authorities, requirements, and remedies of this Act supplement and neither amend nor repeal any other authorities, requirements, or remedies conferred by any other provision of law. Nothing in this Act shall limit, deny, amend, modify, or repeal any other authority, requirement, or remedy available to the United States or

any other person, except as expressly provided in this Act.''.

Subtitle E—Aviation

SEC. 8501. ENVIRONMENTAL MITIGATION PILOT PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Transportation, in coordination with the Administrator of the Environmental Protection Agency, shall establish a pilot program to carry out not more than 6 environmental mitigation demonstration projects at public-use airports.

(b) GRANTS.—In implementing the program, the Secretary may make a grant to the sponsor of a public-use airport from funds apportioned under section 47117(e)(1)(A) of title 49, United States Code, to carry out an environmental mitigation demonstration project to measurably reduce or mitigate aviation impacts on noise, air quality, or water quality in the vicinity of the airport.

(c) ELIGIBILITY FOR PASSENGER FACILITY FEES.—An environmental mitigation demonstration project that receives funds made available under this section may be considered an eligible airport-related project for purposes of section 40117 of such title.

(d) SELECTION CRITERIA.—In selecting among applicants for participation in the program, the Secretary shall give priority consideration to applicants proposing to

carry out environmental mitigation demonstration projects that will—

(1) achieve the greatest reductions in aircraft noise, airport emissions, or airport water quality impacts either on an absolute basis or on a per dollar of funds expended basis; and

(2) be implemented by an eligible consortium.

(e) FEDERAL SHARE.—Notwithstanding any provision of subchapter I of chapter 471 of such title, the United States Government share of allowable project costs of an environmental mitigation demonstration project carried out under this section shall be 50 percent.

(f) MAXIMUM AMOUNT.—The Secretary may not make grants for a single environmental mitigation demonstration project under this section in a total amount that exceeds $2,500,000.

(g) PUBLICATION OF INFORMATION.—The Secretary may develop and publish information on the results of environmental mitigation demonstration projects carried out under this section, including information identifying best practices for reducing or mitigating aviation impacts on noise, air quality, or water quality in the vicinity of airports.

(h) DEFINITIONS.—In this section, the following definitions apply:

(1) ELIGIBLE CONSORTIUM.—The term ''eligible consortium'' means a consortium of 2 or more of the following entities:

(A) A business incorporated in the United States.

(B) A public or private educational or research organization located in the United States.

(C) An entity of a State or local government.

(D) A Federal laboratory.

(2) ENVIRONMENTAL MITIGATION DEMONSTRATION PROJECT.—The term ''environmental mitigation demonstration project'' means a project that—

(A) demonstrates at a public-use airport environmental mitigation techniques or technologies with associated benefits, which have already been proven in laboratory demonstrations;

(B) utilizes methods for efficient adaptation or integration of innovative concepts to airport operations; and

(C) demonstrates whether a technique or technology for environmental mitigation identified in research is—

(i) practical to implement at or near multiple public-use airports; and

(ii) capable of reducing noise, airport emissions, greenhouse gas emissions, or water quality impacts in measurably significant amounts.

Subtitle F—Public Buildings

PART 1—GENERAL SERVICES ADMINISTRATION

SEC. 8601. PUBLIC BUILDING ENERGY EFFICIENT AND RENEWABLE ENERGY SYSTEMS.

(a) ESTIMATE OF ENERGY PERFORMANCE IN PROSPECTUS.—Section 3307(b) of title 40, United States Code, is amended—

(1) by striking ''and'' at the end of paragraph (5);

(2) by striking the period at the end of paragraph (6) and inserting ''; and''; and

(3) by inserting after paragraph (6) the following:

''(7) with respect to any prospectus for the construction, alteration, or acquisition of any building or space to be leased, an estimate of the future energy performance of the building or space and a specific description of the use of energy efficient and re-

newable energy systems, including photovoltaic systems, in carrying out the project.''.

(b) MINIMUM PERFORMANCE REQUIREMENTS FOR LEASED SPACE.—Section 3307 of such of title is amended—

(1) by redesignating subsections (f) and (g) as subsections (g) and (h), respectively; and

(2) by inserting after subsection (e) the following:

''(f) MINIMUM PERFORMANCE REQUIREMENTS FOR LEASED SPACE.—With respect to space to be leased, the Administrator shall include, to the maximum extent practicable, minimum performance requirements requiring energy efficiency and the use of renewable energy.''.

(c) USE OF ENERGY EFFICIENT LIGHTING FIXTURES AND BULBS.—

(1) IN GENERAL.—Chapter 33 of such title is amended—

(A) by redesignating sections 3313, 3314, and 3315 as sections 3315, 3316, and 3317, respectively; and

(B) by inserting after section 3312 the following:

"§ 3313. Use of energy efficient lighting fixtures and bulbs

"(a) CONSTRUCTION, ALTERATION, AND ACQUISITION OF PUBLIC BUILDINGS.—Each public building constructed, altered, or acquired by the Administrator of General Services shall be equipped, to the maximum extent feasible as determined by the Administrator, with lighting fixtures and bulbs that are energy efficient.

"(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each lighting fixture or bulb that is replaced by the Administrator in the normal course of maintenance of public buildings shall be replaced, to the maximum extent feasible, with a lighting fixture or bulb that is energy efficient.

"(c) CONSIDERATIONS.—In making a determination under this section concerning the feasibility of installing a lighting fixture or bulb that is energy efficient, the Administrator shall consider—

"(1) the life-cycle cost effectiveness of the fixture or bulb;

"(2) the compatibility of the fixture or bulb with existing equipment;

"(3) whether use of the fixture or bulb could result in interference with productivity;

"(4) the aesthetics relating to use of the fixture or bulb; and

"(5) such other factors as the Administrator determines appropriate.

"(d) ENERGY STAR.—A lighting fixture or bulb shall be treated as being energy efficient for purposes of this section if—

"(1) the fixture or bulb is certified under the Energy Star program established by section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a); or

"(2) the Administrator has otherwise determined that the fixture or bulb is energy efficient.

"(e) APPLICABILITY OF BUY AMERICAN ACT.—Acquisitions carried out pursuant to this section shall be subject to the requirements of the Buy American Act (41 U.S.C. 10c et seq.).

"(f) EFFECTIVE DATE.—The requirements of subsections (a) and (b) shall take effect one year after the date of enactment of this subsection.".

(2) CLERICAL AMENDMENT.—The analysis for such chapter is amended by striking the items relating to sections 3313, 3314, and 3315 and inserting the following:

"3313. Use of energy efficient lighting fixtures and bulbs.
"3314. Maximum period for utility services contracts.
"3315. Delegation.
"3316. Report to Congress.
"3317. Certain authority not affected.".

(d) MAXIMUM PERIOD FOR UTILITY SERVICE CONTRACTS.—Such chapter is further amended by inserting after section 3313 (as inserted by subsection (c)(1) of this section) the following:

"§ 3314. Maximum period for utility service contracts

''Notwithstanding section 501(b)(1)(B), the Administrator of General Services may contract for public utility services for a period of not more than 30 years if cost effective and necessary to promote the use of energy efficient and renewable energy systems, including photovoltaic systems.''.

(e) EVALUATION FACTOR.—Section 3310 of such title is amended—

(1) by redesignating paragraphs (3), (4), and (5) as paragraphs (4), (5), and (6), respectively; and

(2) by inserting after paragraph (2) the following:

''(3) shall include in the solicitation for any lease requiring a prospectus under section 3307 an evaluation factor considering the extent to which the offeror will promote energy efficiency and the use of renewable energy;''.

SEC. 8602. PUBLIC BUILDING LIFE-CYCLE COSTS.

Section 544(a)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8254(a)(1)) is amended by striking ''25'' and inserting ''40''.

SEC. 8603. INSTALLATION OF PHOTOVOLTAIC SYSTEM AT DEPARTMENT OF ENERGY HEADQUARTERS BUILDING.

(a) IN GENERAL.—The Administrator of General Services shall install a photovoltaic system, as set forth in the Sun Wall Design Project, for the headquarters building of the Department of Energy located at 1000 Independence Avenue, SW., Washington, DC, commonly known as the Forrestal Building.

(b) FUNDING.—There shall be available from the Federal Buildings Fund established by section 592 of title 40, United States Code, $30,000,000 to carry out this section. Such sums shall be derived from the unobligated balance of amounts made available from the Fund for fiscal year 2007, and prior fiscal years, for repairs and alternations and other activities (excluding amounts made available for the energy program). Such sums shall remain available until expended.

(c) OBLIGATION OF FUNDS.—None of the funds made available pursuant to subsection (b) may be obligated prior to September 30, 2007.

PART 2—COAST GUARD

SEC. 8631. PROHIBITION ON INCANDESCENT LAMPS BY COAST GUARD.

(a) PROHIBITION.—Except as provided by subsection (b), on and after January 1, 2009, a general service incandescent lamp shall not be purchased or installed in a Coast Guard facility by or on behalf of the Coast Guard.

(b) EXCEPTION.—A general service incandescent lamp may be purchased, installed, and used in a Coast Guard facility whenever the application of a general service incandescent lamp is—

(1) necessary due to purpose or design, including medical, security, and industrial applications;

(2) reasonable due to the architectural or historical value of a light fixture installed before January 1, 2009; or

(3) the Commandant of the Coast Guard determines that operational requirements necessitate the use of a general service incandescent lamp.

(c) LIMITATION.—In this section, the term ''facility'' does not include a vessel or aircraft of the Coast Guard.

PART 3—ARCHITECT OF THE CAPITOL

SEC. 8651. CAPITOL COMPLEX PHOTOVOLTAIC ROOF FEASIBILITY STUDY.

(a) STUDY.—The Architect of the Capitol may perform a feasibility study regarding construction of a photovoltaic roof for the Rayburn House Office Building.

(b) REPORT.—Not later than 6 months after the date of enactment of this Act, the Architect of the Capitol shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives a report on the results of the feasibility study and recommendations regarding construction of a photovoltaic roof for the building referred to in subsection (a).

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary for fiscal year 2008.

SEC. 8652. CAPITOL COMPLEX E–85 REFUELING STATION.

(a) CONSTRUCTION.—The Architect of the Capitol may construct a fuel tank and pumping system for E–85 fuel at or within close proximity to the Capitol Grounds Fuel Station.

(b) USE.—The E–85 fuel tank and pumping system shall be available for use by all legislative branch vehicles capable of operating with E–85 fuel, subject to such other legislative branch agencies reimbursing the Architect of

the Capitol for the costs of E–85 fuel used by such other legislative branch vehicles.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary for fiscal year 2008.

SEC. 8653. ENERGY AND ENVIRONMENTAL MEASURES IN CAPITOL COMPLEX MASTER PLAN.

(a) IN GENERAL.—To the maximum extent practicable, the Architect of the Capitol shall include energy efficiency measures, climate change mitigation measures, and other appropriate environmental measures in the Capitol Complex Master Plan.

(b) REPORT.—Not later than 6 months after the date of enactment of this Act, the Architect of the Capitol shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Rules of the Senate a report on the energy efficiency measures, climate change mitigation measures, and other appropriate environmental measures included in the Capitol Complex Master Plan pursuant to subsection (a).

SEC. 8654. CAPITOL POWER PLANT.

(a) IN GENERAL.—For the purpose of reducing carbon dioxide emissions, the Architect of the Capitol shall install technologies for the capture and storage or use of

carbon dioxide emitted from the Capitol Power plant as a result of burning coal.

(b) CAPITOL POWER PLANT DEFINED.—In this section, the term ''Capitol power plant'' means the power plant constructed in the vicinity of the Capitol Complex in the District of Columbia pursuant to the Act of April 28, 1904 (33 Stat. 479, chapter 1762), and designated under the Act of March 4, 1911 (2 U.S.C. 2162).

SEC. 8655. PROMOTING MAXIMUM EFFICIENCY IN OPERATION OF CAPITOL POWER PLANT.

(a) STEAM BOILERS.—

(1) IN GENERAL.—The Architect of the Capitol shall take such steps as may be necessary to operate the steam boilers at the Capitol Power Plant in the most energy efficient manner possible to minimize carbon emissions and operating costs, including adjusting steam pressures and adjusting the operation of the boilers to take into account variations in demand, including seasonality, for the use of the system.

(2) EFFECTIVE DATE.—The Architect shall implement the steps required under paragraph (1) not later than 30 days after the date of the enactment of this Act.

(b) CHILLER PLANT.—

(1) IN GENERAL.—The Architect of the Capitol shall take such steps as may be necessary to operate the chiller plant at the Capitol Power Plant in the most energy efficient manner possible to minimize carbon emissions and operating costs, including adjusting water temperatures and adjusting the operation of the chillers to take into account variations in demand, including seasonality, for the use of the system.

(2) EFFECTIVE DATE.—The Architect shall implement the steps required under paragraph (1) not later than 30 days after the date of the enactment of this Act.

(c) METERS.—Not later than 90 days after the date of the enactment of this Act, the Architect of the Capitol shall evaluate the accuracy of the meters in use at the Capitol Power Plant and correct them as necessary.

(d) REPORT ON IMPLEMENTATION.—Not later than 180 days after the date of the enactment of this Act, the Architect of the Capitol, in conjunction with the Chief Administrative Officer of the House of Representatives, shall complete the implementation of the requirements of this section and submit a report describing the actions taken and the energy efficiencies achieved to the Committee on Transportation and Infrastructure of the House of Rep-

resentatives, the Committee on Commerce, Science, and Transportation of the Senate, the Committee on House Administration of the House of Representatives, and the Committee on Rules and Administration of the Senate.

SEC. 8656. PROMOTING MAXIMUM EFFICIENCY IN OPERATION OF CAPITOL POWER PLANT.

(a) STEAM BOILERS AND CHILLER PLANT.—

(1) IN GENERAL.—The Architect of the Capitol shall take such steps as may be necessary to operate the steam boilers and the chiller plant at the Capitol Power Plant in the most energy efficient manner possible to minimize carbon emissions and operating costs, including adjusting steam pressures, adjusting the operation of the boilers, adjusting water temperatures, and adjusting the operation of the chillers to take into account variations in demand, including seasonality, for the use of the systems.

(2) EFFECTIVE DATE.—The Architect shall implement the steps required under paragraph (1) not later than 30 days after the date of the enactment of this Act.

(b) METERS.—Not later than 90 days after the date of the enactment of this Act, the Architect of the Capitol shall evaluate the accuracy of the meters in use at the Capitol Power Plant and correct them as necessary.

(c) REPORT ON IMPLEMENTATION.—Not later than 180 days after the date of the enactment of this Act, the Architect of the Capitol, in conjunction with the Chief Administrative Officer of the House of Representatives, shall complete the implementation of the requirements of this section and submit a report describing the actions taken and the energy efficiencies achieved to the Committee on Transportation and Infrastructure of the House of Representatives, the Committee on Commerce, Science, and Transportation of the Senate, the Committee on House Administration of the House of Representatives, and the Committee on Rules and Administration of the Senate.

Subtitle G—Water Resources and Emergency Management Preparedness

PART 1—WATER RESOURCES

SEC. 8701. POLICY OF THE UNITED STATES.

It is the policy of the United States that all Federal water resources projects—

(1) reflect national priorities for flood damage reduction, navigation, ecosystem restoration, and hazard mitigation and consider the future impacts of increased hurricanes, droughts, and other climate change-related weather events;

(2) avoid the unwise use of floodplains, minimize vulnerabilities in any case in which a floodplain must be used, protect and restore the extent and functions of natural systems, and mitigate any unavoidable damage to aquatic natural system; and

(3) to the maximum extent possible, avoid impacts to wetlands, which create natural buffers, help filter water, serve as recharge areas for aquifers, reduce floods and erosion, and provide valuable plant and animal habitat.

SEC. 8702. 21ST CENTURY WATER COMMISSION.

(a) ESTABLISHMENT.—There is established a commission to be known as the 21st Century Water Commission (in this section referred to as the ''Commission'').

(b) DUTIES.—The duties of the Commission shall be to—

(1) use existing water assessments and conduct such additional studies and assessments as may be necessary to project—

(A) future water supply and demand;

(B) impacts of climate change to our Nation's flood risk and water availability; and

(C) associated impacts of climate change on water quality;

(2)(A) study current water management programs of Federal, interstate, State, and local agencies and private sector entities directed at increasing water supplies and improving the availability, reliability, and quality of freshwater resources; and

(B) evaluate such programs' hazard mitigation strategies and contingency planning in light of climate change impacts, including sea level rise, flooding, and droughts; and

(3) consult with representatives of such agencies and entities to develop recommendations, consistent with laws, treaties, decrees, and interstate compacts, for a comprehensive water strategy to—

(A) recognize the primary role of States in adjudicating, administering, and regulating water rights and water uses;

(B) identify incentives intended to ensure an adequate and dependable supply of water to meet the needs of the United States for the next 50 years, including the future impacts of climate change on water supply and quality;

(C) eliminate duplication and conflict among Federal governmental programs;

(D) consider all available technologies (including climate change predictions, advanced

modeling and mapping of wetlands, floodplains, and other critical areas) and other methods to optimize water supply reliability, availability, and quality, while safeguarding and enhancing the environment and planning for the potential impacts of climate change on water quality, water supply, flood and storm damage reduction, and ecosystem health;

(E) recommend means of capturing excess water and flood water for conservation and use in the event of a drought;

(F) identify adaptation techniques, or further research needs of adaptation techniques, for effectively conserving freshwater and coastal systems as they respond to climate change;

(G) suggest financing options, incentives, and strategies for development of comprehensive water management plans, holistically designed water resources projects, conservation of existing water resources infrastructure (except drinking water infrastructure) and to increase the use of nonstructural elements (including green infrastructure and low impact development techniques);

(H) suggest strategies for avoiding increased mandates on State and local governments;

(I) suggest strategies for using best available climate science in projections of future flood and drought risk, and for developing hazard mitigation strategies to protect water quality, in extreme weather conditions caused by climate change;

(J) identify policies that encourage low impact development, especially in areas near high priority aquatic systems;

(K) suggest strategies for encouraging the use of, and reducing biases against, nonstructural elements (including green infrastructure and low impact development techniques) when managing stormwater, including features that—

(i) preserve and restore natural processes, landforms (such as floodplains), natural vegetated stream side buffers, wetlands, or other topographical features that can slow, filter, and naturally store stormwater runoff and flood waters for fu-

ture water supply and recharge of natural aquifers;

(ii) utilize natural design techniques that infiltrate, filter, store, evaporate, and detain water close to its source; or

(iii) minimize the use of impervious surfaces in order to slow or infiltrate precipitation;

(L) suggest strategies for addressing increased sewage overflow problems due to changing storm dynamics and the impact of aging stormwater and wastewater infrastructure, population growth, and urban sprawl;

(M) promote environmental restoration projects that reestablish natural processes; and

(N) identify opportunities to promote existing or create regional planning, including opportunities to integrate climate change into water infrastructure and environmental conservation planning.

(c) MEMBERSHIP.—

(1) NUMBER AND APPOINTMENT.—The Commission shall be composed of eight members who shall be appointed, not later than 90 days after the date of enactment of this Act, as follows:

(A) Two members appointed by the President.

(B) Two members appointed by the Speaker of the House of Representatives from a list of four individuals—

(i) two nominated for that appointment by the chairman of the Committee on Transportation and Infrastructure of the House of Representatives; and

(ii) two nominated for that appointment by the chairman of the Committee Natural Resources of the House of Representatives.

(C) Two members appointed by the majority leader of the Senate from a list of four individuals—

(i) two nominated for that appointment by the chairman of the Committee on Environment and Public Works of the Senate; and

(ii) two nominated for that appointment by the chairman of the Committee on Energy and Natural Resources of the Senate.

(D) One member appointed by the minority leader of the House of Representatives from a list of two individuals—

(i) one nominated for that appointment by the ranking member of the Committee on Transportation and Infrastructure of the House of Representatives; and

(ii) one nominated for that appointment by the ranking member of the Committee on Natural Resources of the Senate.

(E) One member appointed by the minority leader of the Senate from a list of two individuals—

(i) one nominated for that appointment by the ranking member of the Committee on Environment and Public Works of the Senate; and

(ii) one nominated for that appointment by the ranking member of the Committee on Energy and Natural Resources of the Senate.

(2) QUALIFICATIONS.—

(A) RECOGNIZED STANDING AND DISTINCTION.—Members shall be appointed to the Commission from among individuals who are of

recognized standing and distinction in water policy issues.

(B) LIMITATION.—A person while serving as a member of the Commission may not hold any other position as an officer or employee of the United States, except as a retired officer or retired civilian employee of the United States.

(C) OTHER CONSIDERATIONS.—In appointing members of the Commission, every effort shall be made to ensure that the members represent a broad cross section of regional and geographical perspectives in the United States.

(3) CHAIRPERSON.—The Chairperson of the Commission shall be elected by a majority vote of the members of the Commission.

(4) TERMS.—Members of the Commission shall serve for the life of the Commission.

(5) VACANCIES.—A vacancy on the Commission shall not affect its operation and shall be filled in the manner in which the original appointment was made.

(6) COMPENSATION AND TRAVEL EXPENSES.—Members of the Commission shall serve without compensation; except that members shall receive travel expenses, including per diem in lieu of subsist-

ence, in accordance with applicable provisions under subchapter I of chapter 57, United States Code.

(d) MEETINGS AND QUORUM.—

(1) MEETINGS.—The Commission shall hold its first meeting not later than 60 days after the date on which all original members are appointed under subsection (c) and shall hold additional meetings at the call of the Chairperson or a majority of its members.

(2) QUORUM.—A majority of the members of the Commission shall constitute a quorum for the transaction of business.

(e) DIRECTOR AND STAFF.—

(1) DIRECTOR.—The Commission shall have a Director who shall be appointed by the Speaker of the House of Representatives and the majority leader of the Senate, in consultation with the minority leader of the House of Representatives, the chairmen of the Committees on Resources and Transportation and Infrastructure of the House of Representatives, the minority leader of the Senate, and the chairmen of the Committee on Energy and Natural Resources and Environment and Public Works of the Senate.

(2) APPLICABILITY OF CERTAIN CIVIL SERVICE LAWS.—The Director and staff of the Commission

may be appointed without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and may be paid without regard to the provisions of chapter 51 and subchapter III of chapter 53 of that title relating to classification and General Schedule pay rates; except that an individual so appointed may not receive pay in excess of the annual rate of basic pay for GS–15 of the General Schedule.

(f) HEARINGS.—

(1) MINIMUM NUMBER.—The Commission shall hold no fewer than 10 hearings during the life of the Commission.

(2) IN CONJUNCTION WITH MEETINGS.—Hearings may be held in conjunction with meetings of the Commission.

(3) TESTIMONY AND EVIDENCE.—The Commission may take such testimony and receive such evidence as the Commission considers appropriate to carry out this section.

(4) SPECIFIED.—At least one hearing shall be held in Washington, District of Columbia, for the purpose of taking testimony of representatives of Federal agencies, national organizations, and Members of Congress. At least one hearing shall focus on

potential water resource issues relating to climate change and how to mitigate the harms of climate change-related weather events.

(5) NONSPECIFIED.—Hearings, other than those referred to in paragraph (4), shall be scheduled in distinct geographical regions of the United States. In conducting such hearings, the Commission should seek to ensure testimony from individuals with a diversity of experiences, including those who work on water issues at all levels of government and in the private sector.

(g) INFORMATION AND SUPPORT FROM FEDERAL AGENCIES.—Upon request of the Commission, the head of a Federal department or agency shall—

(1) provide to the Commission, within 30 days of the request, such information as the Commission considers necessary to carry out this section; and

(2) detail to temporary duty with the Commission on a reimbursable basis such personnel as the Commission considers necessary to carry out this section.

(h) INTERIM REPORTS.—Not later than one year after the date of the first meeting of the Commission, and every year thereafter, the Commission shall submit an interim report containing a detailed summary of its

progress, including meetings held and hearings conducted before the date of the report, to—

(1) the President; and

(2) Congress.

(i) FINAL REPORT.—As soon as practicable, but not later than 5 years after the date of the first meeting of the Commission, the Commission shall submit a final report containing a detailed statement of the findings and conclusions of the Commission and recommendations for legislation and other policies to implement such findings and conclusions to—

(1) the President;

(2) the Committee on Natural Resources and the Committee on Transportation and Infrastructure of the House of Representatives; and

(3) the Committee on Energy and Natural Resources and the Committee on the Environment and Public Works of the Senate.

(j) TERMINATION.—The Commission shall terminate not later than 30 days after the date on which the Commission transmits a final report under subsection (h)(1).

(k) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.—The Federal Advisory Committee Act (5 U.S.C. App. 1 et seq.) shall not apply to the Commission.

(l) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $12,000,000 to carry out this section.

SEC. 8703. STUDY OF POTENTIAL IMPACTS OF CLIMATE CHANGE ON WATER RESOURCES AND WATER QUALITY.

(a) NATIONAL ACADEMY STUDY.—The Administrator of the Environmental Protection Agency shall enter into an arrangement with the National Academy of Sciences under which the Academy shall—

(1) produce a 2-part study that will consist of—

(A) a study that will identify the potential impacts of climate change on the Nation's watersheds and water resources, including hydrological and ecological impacts;

(B) a study that will identify the potential impacts of climate change on water quality, including the extent to which Federal and State efforts under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) and other ocean and coastal laws may be affected by climate change;

(C) information, analyses, and data that will identify, to the maximum extent prac-

ticable, hydrological and temperature changes by watershed in the United States and that support the findings made under subparagraphs (A) and (B); and

(D) identification of the scientific consensus, assumptions, and uncertainties related to predictions of climate change in the United States;

(2) identify the potential impacts of climate change on the Nation's water resources, watersheds, and water quality, including the potential for impacts to wetlands, shoreline erosion, and saltwater intrusion as a result of sea level rise, and the potential for significant regional variation in precipitation events to impact Federal, State, and local efforts to attain or maintain water quality;

(3) assess the extent to which Federal and State efforts under the Federal Water Pollution Control Act and other ocean and coastal laws may be affected by climate change;

(4) identify prudent steps to assess emerging information and identify appropriate response actions to meet the requirements of such Act, including provisions to attain or maintain water quality

standards and for adequate stream flows for wetlands and aquatic resources; and

(5) recommend, if necessary, potential legislative or regulatory changes to address impacts of global climate change on efforts to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

(b) RECOMMENDATIONS.—Not later than 2 years after the date of the enactment of this Act, the Administrator shall transmit to Congress a report on the results of the study under this section.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated $1,500,000 to carry out this section.

SEC. 8704. IMPACTS OF CLIMATE CHANGE ON CORPS OF ENGINEERS PROJECTS.

(a) IN GENERAL.—The Secretary of the Army shall ensure that water resources projects and studies carried out by the Corps of Engineers after the date of enactment of this Act take into account the potential short and long term effects of climate change on such projects.

(b) CONSIDERATION.—In carrying out this section, the Secretary shall utilize a representative range of climate change scenarios, including the current projections

of the United States Global Change Research Program and the Intergovernmental Panel on Climate Change.

(c) REPORT TO CONGRESS.—Not later than one year after the date of enactment of this Act, the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the implementation of this section.

PART 2—EMERGENCY MANAGEMENT

SEC. 8731. EFFECTS OF CLIMATE CHANGE ON FEMA PREPAREDNESS, RESPONSE, RECOVERY, AND MITIGATION PROGRAMS.

(a) STUDY.—The Administrator of the Federal Emergency Management Agency shall conduct a comprehensive study of the increase in demand for the Agency's emergency preparedness, response, recovery, and mitigation programs and services that may be reasonably anticipated as a result of an increased number and intensity of natural disasters affected by climate change, including hurricanes, floods, tornadoes, fires, droughts, and severe storms.

(b) CONTENTS.—The study shall include an analysis of the budgetary and personnel needs of meeting the increased demand for Agency services referred to in subsection (a).

(c) REPORT.—Not later than one year after the date of enactment of this Act, the Administrator shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Homeland Security and Governmental Affairs of the Senate a report and any legislative recommendations on the study conducted under this section.

TITLE IX—ENERGY AND COMMERCE

Subtitle A—Promoting Energy Efficiency

SEC. 9000. SHORT TITLE.

This subtitle may be cited as the ''Energy Efficiency Improvement Act of 2007''.

PART 1—APPLIANCE EFFICIENCY

SEC. 9001. ENERGY STANDARDS FOR HOME APPLIANCES.

(a) APPLIANCES.—The Energy Policy and Conservation Act is amended as follows:

(1) DEHUMIDIFIERS.—Section 325(cc)(2) (42 U.S.C. 6295(cc)(2)) is amended to read as follows:

''(2) Dehumidifiers manufactured on or after October 1, 2012, shall have an Energy Factor that meets or exceeds the following values:

''Product Capacity (pints/day):	**Minimum Energy Factor (liters/KWh)**
Up to 35.00	1.35

35.01-45.00	1.50
45.01-54.00	1.60
54.01-75.00	1.70
Greater than 75.00	2.5.”.

(2) RESIDENTIAL CLOTHESWASHERS AND RESIDENTIAL DISHWASHERS.—Section 325(g) (42 U.S.C. 6295(g)) is amended by adding at the end the following new paragraphs:

“(9) A top-loading or front-loading standard-size residential clotheswasher manufactured on or after January 1, 2011, shall have—

“(A) a Modified Energy Factor of at least 1.26; and

“(B) a water factor of not more than 9.5.

“(10) No later than December 31, 2011, the Secretary shall publish a final rule determining whether to amend the standards in effect for clotheswashers manufactured on or after January 1, 2015. Such rule shall contain such amendment, if any.

“(11) Dishwashers manufactured on or after January 1, 2010, shall—

“(A) for standard size dishwashers not exceed 355 kwh/year and 6.5 gallon per cycle; and

“(B) for compact size dishwashers not exceed 260 kwh/year and 4.5 gallons per cycle.

“(12) No later than January 1, 2015, the Secretary shall publish a final rule determining whether to amend

the standards for dishwashers manufactured on or after January 1, 2018. Such rule shall contain such amendment, if any.''.

(3) REFRIGERATORS AND FREEZERS.—Section 325(b) (42 U.S.C. 6295(b)) is amended by adding at the end the following new paragraph:

''(4) Not later than December 31, 2010, the Secretary shall publish a final rule determining whether to amend the standards in effect for refrigerators, refrigerator-freezers, and freezers manufactured on or after January 1, 2014. Such rule shall contain such amendment, if any.''.

(b) ENERGY STAR.—Section 324A(d)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294a(d)(2)) is amended by striking ''January 1, 2010'' and inserting ''July 1, 2009''.

SEC. 9002. ELECTRIC MOTOR EFFICIENCY STANDARDS.

(a) DEFINITIONS.—Section 340(13) of the Energy Policy and Conservation Act (42 U.S.C. 6311(13)) is amended—

(1) by redesignating subparagraphs (B) through (H) as subparagraphs (C) through (I), respectively; and

(2) by striking the text of subparagraph (A) and inserting the following: ''The term 'general pur-

pose electric motor (subtype I)' means any motor that meets the definition of 'General Purpose' as established in the final rule issued by the Department of Energy for 'Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures, Labeling, and Certification Requirements for Electric Motors' (10 CFR 431), as in effect on the date of enactment of the Energy Efficiency Improvement Act of 2007.

''(B) The term 'general purpose electric motor (subtype II)' means motors incorporating the design elements of a general purpose electric motor (subtype I) that are configured as one of the following:

''(i) U-Frame Motors.

''(ii) Design C Motors.

''(iii) Close-coupled pump motors.

''(iv) Footless motors.

''(v) Vertical solid shaft normal thrust motor (as tested in a horizontal configuration).

''(vi) 8-pole motors (~900 rpm).

''(vii) All poly-phase motors with voltages up to 600 volts other than 230/460 volts.''.

(b) STANDARDS.—

(1) AMENDMENT.—Section 342(b) of the Energy Policy and Conservation Act (42 U.S.C. 6313(b)) is amended by striking the text of paragraph (1) and inserting the following: ''(A) Each general purpose electric motor (subtype I), except as provided in subparagraph (B), with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have a nominal full load efficiency not less than as defined in NEMA MG–1 (2006) Table 12–12.

''(B) Each fire pump motor manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have nominal full load efficiency not less than as defined in NEMA MG–1 (2006) Table 12–11.

''(C) Each general purpose electric motor (subtype II) with a power rating of 1 horsepower or greater, but not greater than 200 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall

have a nominal full load efficiency not less than as defined in NEMA MG–1 (2006) Table 12–11.

"(D) Each NEMA Design B, general purpose electric motor with a power rating of more than 200 horsepower, but not greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) after the 36-month period beginning on the date of enactment of the Energy Efficiency Improvement Act of 2007, shall have a nominal full load efficiency not less than as defined in NEMA MG–1 (2006) Table 12–11.".

(2) EFFECTIVE DATE.—The amendment made by paragraph (1) shall take effect 36 months after the date of enactment of this Act.

SEC. 9003. RESIDENTIAL BOILERS.

Section 325(f) of the Energy Policy and Conservation Act (42 U.S.C. 6925(f)) is amended—

(1) in the subsection heading, by inserting "AND BOILERS" after "FURNACES";

(2) in paragraph (1), by striking "except that" and all that follows through "(B)" and inserting "except that";

(3) by redesignating paragraph (3) as paragraph (4); and

(4) by inserting after paragraph (2) the following:

"(3) BOILERS.—

"(A) IN GENERAL.—Subject to subparagraph (B), boilers manufactured on or after September 1, 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature
Gas Steam	80%	No Constant Burning Pilot
Oil Hot Water	84%	Automatic Means for Adjusting Temperature
Oil Steam	82%	None
Electric Hot Water	None	Automatic Means for Adjusting Temperature
Electric Steam	None	None

"(B) AUTOMATIC MEANS FOR ADJUSTING WATER TEMPERATURE.—

"(i) IN GENERAL.—The manufacturer shall equip each gas, oil and electric hot water boiler, except boilers equipped with tankless domestic water heating coils, with automatic means for adjusting the temperature of the water supplied by the boiler to ensure that an incremental change in inferred heat load pro-

duces a corresponding incremental change in the temperature of water supplied.

"(ii) SINGLE INPUT RATE.—For a boiler that fires at one input rate this requirement may be satisfied by providing an automatic means that allows the burner or heating element to fire only when such means has determined that the inferred heat load cannot be met by the residual heat of the water in the system.

"(iii) NO INFERRED HEAT LOAD.—When there is no inferred heat load with respect to a hot water boiler, the automatic means described in clause (i) and (ii) shall limit the temperature of the water in the boiler to not more than 140 degrees Fahrenheit.

"(iv) OPERATION.—A boiler described in clause (i) or (ii) shall be operable only when the automatic means described in clauses (i), (ii), and (iii) is installed.

"(C) EXCEPTION.—Boilers that are manufactured to operate without any need for electricity, any electric connection, any electric gauges, electric pumps, electric wires, or electric devices of any sort, shall not be required to meet the requirements of this section.".

SEC. 9004. REGIONAL VARIATIONS IN HEATING OR COOLING STANDARDS.

(a) CONSUMER APPLIANCES.—Section 325(o) of the Energy Policy and Conservation Act (42 U.S.C. 6925(o)) is amended by adding at the end the following new paragraph:

''(6)(A) The Secretary may establish regional standards for space heating and air conditioning products, other than window-unit air-conditioners and portable space heaters. For each space heating and air conditioning product, the Secretary may establish a national minimum standard and two more stringent regional standards for regions determined to have significantly differing climatic conditions. Any standards set for any such region shall achieve the maximum level of energy savings that are technically feasible and economically justified within that region. As a preliminary step to determining the economic justifiability of establishing any such regional standard, the Secretary shall conduct a study involving stakeholders, including but not limited to a representative from the National Institute of Standards and Technology; representatives of nongovernmental advocacy organizations; representatives of product manufacturers, distributors, and installers; representatives of the gas and electric utility industries; and such other individuals as the Secretary may designate. Such study shall determine the potential bene-

1 fits and consequences of prescribing regional standards for
2 heating and cooling products, and may, if favorable to
3 such standards, constitute the evidence of economic justifi-
4 ability required under this Act. Regional boundaries shall
5 follow State borders and only include contiguous States
6 (except Alaska and Hawaii), except that on the request
7 of a State, the Secretary may divide that State to include
8 a part of that State in each of two regions.

9 ''(B) If the Secretary establishes regional standards,
10 it shall be unlawful under section 332 to offer for sale
11 at retail, sell at retail, or install noncomplying products
12 except within the specified regions.

13 ''(C)(i) Except as provided in clause (ii), no product
14 manufactured to a regional standard established pursuant
15 to subparagraph (A) shall be distributed in commerce
16 without a prominent label affixed to the product which in-
17 cludes at the top of the label, in print of not less than
18 14-point type, the following: 'It is a violation of Federal
19 law for this product to be installed in any State outside
20 the region shaded on the map printed on this label.'.
21 Below this notice shall appear a map of the United States
22 with clearly defined State boundaries and names, and with
23 all States in which the product meets or exceeds the stand-
24 ard established pursuant to subparagraph (A) shaded in
25 a color or a manner as to be easily visible without obscur-

ing the State boundaries and names. Below the map shall be printed on each label the following: 'It is a violation of Federal law for this label to be removed, except by the owner and legal resident of any single-family home in which this product is installed.'.

''(ii) A product manufactured that meets or exceeds all regional standards established under this paragraph shall bear a prominent label affixed to the product which includes at the top of the label, in print of not less than 14-point type the following: 'This product has achieved an energy efficiency rating under Federal law allowing its installation in any State.'.

''(D) Manufacturers of space heating and air conditioning equipment subject to regional standards established under this paragraph shall obtain and retain records on the intended installation locations of the equipment sold, and shall make such records available to the Secretary on request.''.

(b) INDUSTRIAL EQUIPMENT.—Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)) is amended by adding at the end the following new paragraph:

''(10)(A) The Secretary may establish regional standards for space heating and air conditioning products subject to this subsection. For each space heating and air con-

ditioning product, the Secretary may establish a national minimum standard and two more stringent regional standards for regions determined to have significantly differing climatic conditions. Any standards set for any such region shall achieve the maximum level of energy savings that are technically feasible and economically justified within that region. Regional boundaries shall follow State borders and only include contiguous States (except Alaska and Hawaii), except that on the request of a State, the Secretary may divide that State to include a part of that State in each of two regions.

''(B) If the Secretary establishes regional standards, it shall be unlawful under section 345 to offer for sale at retail, sell at retail, or install noncomplying products except within the specified regions.

''(C) Manufacturers of space heating and air conditioning equipment subject to regional standards established under this paragraph shall obtain and retain records on the intended installation locations of the equipment sold, and shall make such records available to the Secretary on request.''.

SEC. 9005. PROCEDURE FOR PRESCRIBING NEW OR AMENDED STANDARDS.

Section 325(p) of the Energy Policy and Conservation Act (42 U.S.C. 6925(p)) is amended—

(1) by striking paragraph (1); and

(2) by redesignating paragraphs (2) through (4) as paragraphs (1) through (3), respectively.

SEC. 9006. EXPEDITING APPLIANCE STANDARDS RULEMAKINGS.

(a) DIRECT FINAL RULE.—Section 325(p) of the Energy Policy and Conservation Act (42 U.S.C. 6295(p)) is amended by adding a new paragraph (4) as follows:

"(4) If manufacturers of any type (or class) of covered products or covered equipment, States, and efficiency advocates, or persons determined by the Secretary to fully represent such parties, submit to the Secretary a joint recommendation of an energy or water conservation standard and the Secretary determines that the recommended standard complies with subsection (o) or section 342(a)(6)(B), as applicable, to that type (or class) of covered products or covered equipment to which the standard would apply, the Secretary may then issue a direct final rule including the standard recommended. If the Secretary determines that a direct final rule cannot be issued based on such a submitted joint recommendation, the Secretary shall publish a determination with an explanation as to why the joint recommendation does not comply with this para-

graph. For purposes of this paragraph, the term 'direct final rule' means a final rule published the same day with a parallel notice of proposed rulemaking that proposes a new or amended energy or water conservation standard that is identical to the standard set forth in the final rule. There shall be a 110-day period for public comment with respect to the direct final rule. Not later than 10 days after the expiration of such 110-day period, the Secretary shall publish a notice responding to comments received with respect to the direct final rule. The Secretary shall withdraw a direct final rule promulgated pursuant to this paragraph within 120 days after publication in the Federal Register if the Secretary receives, with respect to the direct final rule, one or more adverse public comments or any alternate joint recommendation and, based on the rulemaking record, the Secretary determines that such adverse comments or alternate joint recommendation may provide a reasonable basis for withdrawing the direct final rule under subsection (o), section 342(a)(6)(B), or any applicable law. In such a case, the Secretary shall then proceed with the parallel notice of proposed rulemaking, and shall identify in a notice published in the Federal Register the reasons for the

withdrawal of the direct final rule. A direct final rule that is withdrawn in accordance with this paragraph shall not be considered final for purposes of subsection (o)(1) of this section. No person shall be found in violation of this part for noncompliance with a direct final rule that is withdrawn under this paragraph, if that person has complied with the applicable standard in effect under this part immediately prior to issuance of that direct final rule.''.

(b) CONFORMING AMENDMENT.—Section 345(b)(1) of the Energy Policy and Conservation Act (42 U.S.C. 6316(b)(1)) is amended by inserting after ''section'' the first time it appears ''325(p)(5), section''.

SEC. 9007. CORRECTION OF LARGE AIR CONDITIONER RULE ISSUANCE CONSTRAINT.

(a) DEFINITIONS.—Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended by adding the following new paragraphs at the end:

''(22) The term 'single package vertical air conditioner' means air-cooled commercial package air conditioning and heating equipment; factory assembled as a single package having its major components arranged vertically, which is an encased combination of cooling and optional heating components, is intended for exterior mounting on, adjacent inte-

rior to, or through an outside wall; and is powered by a single- or three-phase current. It may contain separate indoor grille(s), outdoor louvers, various ventilation options, indoor free air discharge, ductwork, well plenum, or sleeve. Heating components may include electrical resistance, steam, hot water, or gas, but may not include reverse cycle refrigeration as a heating means.

''(23) The term 'single package vertical heat pump' means a single package vertical air conditioner that utilizes reverse cycle refrigeration as its primary heat source, that may include secondary supplemental heating by means of electrical resistance, steam, hot water, or gas.''.

(b) STANDARDS.—Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)) is amended—

(1) in each of paragraphs (1) and (2), by inserting after ''heating equipment'' in the first sentence '', including single package vertical air conditioners and single package vertical heat pumps,'';

(2) in paragraph (1), by striking ''but before January 1, 2010,'';

(3) in each of paragraphs (7), (8), and (9), by inserting after ''heating equipment'' in the first sen-

tence ", excluding single package vertical air conditioners and single package vertical heat pumps,";

(4) in paragraph (7)—

(A) by striking "manufactured on or after January 1, 2010,";

(B) in each of subparagraphs (A), (B), and (C), by striking "The" and inserting "For equipment manufactured on or after January 1, 2010, the"; and

(C) by adding at the end the following new subparagraphs:

"(D) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, the minimum seasonal energy efficiency ratio of air-cooled three-phase electric central air conditioners and central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), split systems, shall be 13.0.

"(E) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, minimum seasonal energy efficiency ratio of air-cooled three-phase electric central air conditioners and central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), single package, shall be 13.0.

"(F) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, minimum heating seasonal performance factor of air-cooled three-phase electric central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), split systems, shall be 7.7.

"(G) For equipment manufactured on or after the later of January 1, 2008, or the date six months after enactment of this section, the minimum heating seasonal performance factor of air-cooled three-phase electric central air conditioning heat pumps less than 65,000 Btu per hour (cooling capacity), single package, shall be 7.7."; and

(5) by adding the following new paragraphs at the end:

"(11) Single package vertical air conditioners and single package vertical heat pumps manufactured on or after January 1, 2010, shall meet the following standards:

"(A) The minimum energy efficiency ratio of single package vertical air conditioners less than 65,000 Btu per hour (cooling capacity), single-phase, shall be 9.0.

"(B) The minimum energy efficiency ratio of single package vertical air conditioners less than

65,000 Btu per hour (cooling capacity), three-phase, shall be 9.0.

"(C) The minimum energy efficiency ratio of single package vertical air conditioners at or above 65,000 Btu per hour (cooling capacity) but less than 135,000 Btu per hour (cooling capacity), shall be 8.9.

"(D) The minimum energy efficiency ratio of single package vertical air conditioners at or above 135,000 Btu per hour (cooling capacity) but less than 240,000 Btu per hour (cooling capacity), shall be 8.6.

"(E) The minimum energy efficiency ratio of single package vertical heat pumps less than 65,000 Btu per hour (cooling capacity), single-phase, shall be 9.0; and the minimum coefficient of performance in the heating mode shall be 3.0.

"(F) The minimum energy efficiency ratio of single package vertical heat pumps less than 65,000 Btu per hour (cooling capacity), three-phase, shall be 9.0; and the minimum coefficient of performance in the heating mode shall be 3.0.

"(G) The minimum energy efficiency ratio of single package vertical heat pumps at or above 65,000 Btu per hour (cooling capacity) but less than

135,000 Btu per hour (cooling capacity), shall be 8.9; and the minimum coefficient of performance in the heating mode shall be 3.0.

"(H) The minimum energy efficiency ratio of single package vertical heat pumps at or above 135,000 Btu per hour (cooling capacity) but less than 240,000 Btu per hour (cooling capacity), shall be 8.6; and the minimum coefficient of performance in the heating mode shall be 2.9.

"(12) Not later than 36 months after the date of enactment of this paragraph, the Secretary shall review the most recently published ASHRAE/IES Standard 90.1 with respect to single package vertical air conditioners and single package vertical heat pumps according to the procedures established in paragraph (6).".

SEC. 9008. DEFINITION OF ENERGY CONSERVATION STANDARD.

Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by striking paragraph (6) and inserting the following:

"(6) ENERGY CONSERVATION STANDARD.—

"(A) IN GENERAL.—The term 'energy conservation standard' means 1 or more performance standards that—

"(i) for covered products (excluding clothes washers, dishwashers, showerheads, faucets, water closets, and urinals), prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323;

"(ii) for showerheads, faucets, water closets, and urinals, prescribe a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with test procedures prescribed under section 323; and

"(iii) for clothes washers and dishwashers—

"(I) prescribe a minimum level of energy efficiency or a maximum quantity of energy use, determined in accordance with test procedures prescribed under section 323; and

"(II) may include a minimum level of water efficiency or a maximum quantity of water use, determined in accordance with those test procedures.

"(B) INCLUSIONS.—The term 'energy conservation standard' includes—

"(i) 1 or more design requirements, if the requirements were established—

"(I) on or before the date of enactment of this subclause; or

"(II) as part of a consensus agreement under section 325(p)(5); and

"(ii) any other requirements that the Secretary may prescribe under section 325(r).

"(C) EXCLUSION.—The term 'energy conservation standard' does not include a performance standard for a component of a finished covered product, unless regulation of the component is authorized or established pursuant to this title.".

SEC. 9009. IMPROVING SCHEDULE FOR STANDARDS UPDATING AND CLARIFYING STATE AUTHORITY.

(a) CONSUMER APPLIANCES.—Section 325(m) of the Energy Policy and Conservation Act (42 U.S.C. 6295(m)) is amended to read as follows:

"(m) FURTHER RULEMAKING.—(1) Not later than 6 years after issuance of any final rule establishing or

amending a standard, as required for a product under this part, the Secretary shall publish either—

"(A) a notice of the Secretary's determination that standards for that product do not need to be amended, based on the criteria in subsection (n)(2); or

"(B) a notice of proposed rulemaking including new proposed standards based on the criteria in subsection (o) and the procedures in subsection (p).

In either case, the Secretary shall also publish a notice stating that the Department's analysis is publicly available, and provide opportunity for written comment.

"(2) Not later than 2 years after a notice is issued under paragraph (1)(B), the Secretary shall publish a final rule amending the standard for the product. Not later than 3 years after a determination under paragraph (1)(A), the Secretary shall make a new determination and publication under paragraph (1)(A) or (B).

"(3) An amendment prescribed under this subsection shall apply to products manufactured after a date which is 3 years after publication of the final rule establishing a standard, except that a manufacturer shall not be required to apply new standards to a product with respect to which other new standards have been required within the prior 6 years.

"(4) The Secretary shall promptly submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate—

"(A) a progress report every 180 days on compliance with this section, including a specific plan to remedy any failures to comply with deadlines for action set forth in this section; and

"(B) all required reports to the Court or to any party to the Consent Decree in State of New York v Bodman, Consolidated Civil Actions No.05 Civ. 7807 and No.05 Civ. 7808.".

(b) INDUSTRIAL EQUIPMENT.—Section 342(a)(6) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)(6)) is amended—

(1) by redesignating subparagraph (C) as subparagraph (D); and

(2) by amending the remainder of the paragraph to read as follows:

"(6)(A) If ASHRAE/IES Standard 90.1 is amended with respect to any small, large, or very large commercial package air conditioning and heating equipment, packaged terminal air conditioners, packaged terminal heat pumps, warm-air furnaces, packaged boilers, storage water heaters, instanta-

neous water heaters, or unfired hot water storage tanks, the Secretary shall within 6 months publish in the Federal Register for public comment an analysis of the energy savings potential of the amended energy efficiency standards. The Secretary shall establish an amended uniform national standard for that product at the minimum level for each effective date specified in the amended ASHRAE/IES Standard 90.1 within 18 months of the ASHRAE amendment's publication, unless the Secretary determines, by rule published in the Federal Register, and supported by clear and convincing evidence, that adoption of a uniform national standard more stringent than such amended ASHRAE/IES Standard 90.1 for such product would result in significant additional conservation of energy and is technologically feasible and economically justified.

''(B) If the Secretary issues a rule containing such a determination, the rule shall establish such amended standard, and shall be issued within 30 months of the ASHRAE amendment's publication.

''(C)(i) Not later than 6 years after issuance of any final rule establishing or amending a standard, as required for a product under this part, the Secretary shall publish either—

"(I) a notice of the Secretary's determination that standards for that product do not need to be amended, based on the criteria in subparagraph (A); or

"(II) a notice of proposed rulemaking including new proposed standards based on the criteria and procedures in subparagraph (B).

In either case, the Secretary shall also publish a notice stating that the Department's analysis is publicly available, and provide opportunity for written comment.

"(ii) Not later than 2 years after a notice is issued under clause (i)(II), the Secretary shall publish a final rule amending the standard for the product. Not later than 3 years after a determination under clause (i)(I), the Secretary shall make a new determination and publication under clause (i)(I) or (II).

"(iii) An amendment prescribed under this subparagraph shall apply to products manufactured after a date which is 3 years after publication of the final rule establishing a standard, except that a manufacturer shall not be required to apply new standards to a product with respect to which other

new standards have been required within the prior 6 years.

"(iv) The Secretary shall promptly submit to the House Committee on Energy and Commerce and to the Senate Committee on Energy and Natural Resources a progress report every 180 days on compliance with this paragraph, including a specific plan to remedy any failures to comply with deadlines for action set forth in this paragraph.".

SEC. 9010. UPDATING APPLIANCE TEST PROCEDURES.

(a) CONSUMER APPLIANCES.—Section 323(b)(1)(A) of the Energy Policy and Conservation Act (42 U.S.C. 6923(b)(1)(A)) is amended by striking "The Secretary may" and all that follows through "paragraph (3)" and inserting "At least every 7 years the Secretary shall review test procedures for all covered products and shall—

"(i) amend test procedures with respect to any covered product if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraph (3); or

"(ii) publish notice in the Federal Register of any determination not to amend a test procedure".

(b) INDUSTRIAL EQUIPMENT.—Section 343(a)(1) of the Energy Policy and Conservation Act (42 U.S.C.

6314(a)(1)) is amended by striking ''The Secretary may'' and all that follows through ''this section'' and inserting ''At least every 7 years the Secretary shall conduct an evaluation of each class of covered equipment and—

''(A) if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraphs (2) and (3), shall prescribe test procedures for such class in accordance with the provisions of this section; or

''(B) shall publish notice in the Federal Register of any determination not to amend a test procedure''.

SEC. 9011. FURNACE FAN STANDARD PROCESS.

Section 325(f)(4)(D) of the Energy Policy and Conservation Act (42 U.S.C. 6295(f)(3)(D)), as redesignated by section 9003(3) of this Act, is amended—

(1) by striking ''may'' and inserting ''shall''; and

(2) by inserting ''not later than July 1, 2013'' after ''duct work''.

SEC. 9012. TECHNICAL CORRECTIONS.

(a) Section 135(a)(1)(A)(ii) of the Energy Policy Act of 2005 (Public Law 109–58) is amended by striking ''C78.1–1978(R1984)'' and inserting ''C78.3–1978(R1984)''.

(b) Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) (as amended by section 135(c)(4) of the Energy Policy Act of 2005) is amended—

(1) in subsection (v)—

(A) in the subsection heading, by striking ''CEILING FANS AND'';

(B) by striking paragraph (1); and

(C) by redesignating paragraphs (2) through (4) as paragraphs (1) through (3), respectively; and

(2) in subsection (ff)—

(A) in paragraph (1)(A)—

(i) by striking clause (iii);

(ii) by redesignating clause (iv) as clause (iii); and

(iii) in clause (iii)(II) (as so redesignated), by inserting ''fans sold for'' before ''outdoor''; and

(B) in paragraph (4)(C)—

(i) in the matter preceding clause (i), by striking ''subparagraph (B)'' and inserting ''subparagraph (A)'';

(ii) by striking clause (ii) and inserting the following:

"(ii) shall be packaged with lamps to fill all sockets.";

(C) in paragraph (6), by redesignating subparagraphs (C) and (D) as clauses (i) and (ii), respectively, of subparagraph (B); and

(D) in paragraph (7), by striking "327" the second place it appears and inserting "324".

SEC. 9013. ENERGY EFFICIENT STANDBY POWER DEVICES.

(a) DEFINITIONS.—In this section:

(1) AGENCY.—

(A) IN GENERAL.—The term "agency" has the meaning given the term "Executive agency" in section 105 of title 5, United States Code.

(B) INCLUSIONS.—The term "agency" includes military departments, as the term is defined in section 102 of title 5, United States Code.

(2) ELIGIBLE PRODUCT.—The term "eligible product" means a commercially available, off-the-shelf product that—

(A)(i) uses external standby power devices; or

(ii) contains an internal standby power function; and

(B) is included on the list compiled under subsection (d).

(b) FEDERAL PURCHASING REQUIREMENT.—Subject to subsection (c), if an agency purchases an eligible product, the agency shall purchase—

(1) an eligible product that uses not more than 1 watt in the standby power consuming mode of the eligible product; or

(2) if an eligible product described in paragraph (1) is not available, the eligible product with the lowest available standby power wattage in the standby power consuming mode of the eligible product.

(c) LIMITATION.—The requirements of subsection (b) shall apply to a purchase by an agency only if—

(1) the lower-wattage eligible product is—

(A) lifecycle cost-effective; and

(B) practicable; and

(2) the utility and performance of the eligible product is not compromised by the lower wattage requirement.

(d) ELIGIBLE PRODUCTS.—The Secretary of Energy, in consultation with the Secretary of Defense and the Administrator of General Services, shall compile a list of cost-effective eligible products that shall be subject to the purchasing requirements of subsection (b).

SEC. 9014. EXTERNAL POWER SUPPLY EFFICIENCY STANDARDS.

(a) Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended—

(1) in paragraph (36) by inserting ''(A)'' before the text and adding at the end the following:

''(B) The term 'class A external power supply' means a device that—

''(i) is designed to convert line voltage AC input into lower voltage AC or DC output;

''(ii) is able to convert to only one AC or DC output voltage at a time;

''(iii) is sold with, or intended to be used with, a separate end-use product that constitutes the primary load;

''(iv) is contained in a separate physical enclosure from the end-use product;

''(v) is connected to the end-use product via a removable or hard-wired male/female electrical connection, cable, cord or other wiring; and

''(vi) has nameplate output power less than or equal to 250 watts.

''(C) The term 'class A external power supply' does not include any device that—

"(i) requires Federal Food and Drug Administration listing and approval as a medical device, as described under section 513 of the Food, Drug, and Cosmetic Act of 1938; or

"(ii) powers the charger of a detachable battery pack or charges the battery of a product that is fully or primarily motor operated.

"(D) The term 'active mode' means the mode of operation when an external power supply is connected to the main electricity supply and the output is connected to a load.

"(E) The term 'no-load mode' means the mode of operation when an external power supply is connected to the main electricity supply and the output is not connected to a load."

(2) by adding at the end the following:

"(52) The term 'detachable battery' means a battery that is contained in a separate enclosure from the product and is intended to be removed or disconnected from the product for recharging.".

(b) Section 323 of the Energy Policy and Conservation Act (42 U.S.C. 6293) is amended in subsection (b) by adding at the end the following:

"(17) Test procedures for class A external power supplies shall be based upon the U.S. Environmental Protection Agency's 'Test Method for Calculating the Energy Efficiency of Single-Voltage External AC–DC and AC–AC Power Supplies', August 11, 2004, provided that the test voltage specified in section 4(d) of such test method shall be only 115 volts, 60 Hz.".

(c) Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended in subsection (u) by adding at the end the following:

"(6) EFFICIENCY STANDARDS FOR CLASS A EXTERNAL POWER SUPPLIES.—

"(A) Class A external power supplies manufactured on or after July 1, 2008 (or the date of enactment of this paragraph, if later) shall meet the following standards:

"Active Mode	
"Nameplate Output	**Required Efficiency (decimal equivalent of a percentage)**
Less than 1 watt	0.5 times the Nameplate Output
From 1 watt to not more than 51 watts	The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5
Greater than 51 watts	0.85
"No-Load Mode	
"Nameplate Output	**Maximum Consumption**
Not more than 250 watts	0.5 watts

"(B) Notwithstanding paragraph (A), any class A external power supply manufactured on or after July 1, 2008, and before July 1, 2015, and made available by the manufacturer as a service part or a spare part for an end-use product—

"(i) that constitutes the primary load; and

"(ii) was manufactured before July 1, 2008,

shall not be subject to the requirements of paragraph (A).

"(C) Any class A external power supply manufactured on or after July 1, 2008 (or the date of enactment of this paragraph, if later) shall be clearly and permanently marked in accordance with the External Power Supply International Efficiency Marking Protocol, as referenced in the 'Energy Star Program Requirements for Single Voltage External AC-DC and AC-AC Power Supplies, version 1.1' published by the Environmental Protection Agency.

"(D)(i) Not later than July 1, 2011 the Secretary shall publish a final rule to determine whether the standards established under para-

graph (A) should be amended. Such rule shall provide that any amended standard shall apply to products manufactured on or after July 1, 2013.

"(ii) Not later than July 1, 2015 the Secretary shall publish a final rule to determine whether the standards established under paragraph (A) should be amended. Such rule shall provide that any amended standard shall apply to products manufactured on or after July 1, 2017.

"(7) An energy conservation standard for external power supplies shall not constitute an energy conservation standard for the separate end-use product to which it is connected.".

SEC. 9015. STANDBY MODE.

Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(1) in subsection (u)—

(A) by striking paragraphs (2), (3), and (4); and

(B) by redesignating paragraph (5), and paragraphs (6) and (7) (as added by this Act) as paragraphs (2), (3), and (4), respectively; and

(2) by adding at the end the following new subsection:

"(ii) STANDBY MODE ENERGY USE.—

"(1) DEFINITIONS.—

"(A) IN GENERAL.—Unless the Secretary determines otherwise pursuant to subparagraph (B), the definitions in this subsection, for the purpose of this subsection, shall apply:

"(i) The term 'active mode' means the condition in which an energy using product is connected to a mains power source, has been activated, and provides one or more main functions.

"(ii) The term 'off mode' means the condition in which an energy using product is connected to a mains power source and is not providing any standby or active mode function.

"(iii) The term 'standby mode' means the condition in which an energy using product is connected to a mains power source and offers one or more of the following user oriented or protective functions:

"(I) To facilitate the activation or deactivation of other functions (including active mode) by remote switch (including remote control), internal sensor, or timer.

"(II) Continuous functions, including information or status displays (including clocks) or sensor-based functions.

"(B) AMENDED DEFINITIONS.—The Secretary may, by rule, amend the definitions under subparagraph (A), taking into consideration the most current versions of Standards 62301 and 62087 of the International Electrotechnical Commission.

"(2) TEST PROCEDURES.—(A) Test procedures for all covered products shall be amended pursuant to section 323 to include standby mode and off mode energy consumption, taking into consideration the most current versions of Standards 62301 and 62087 of the International Electrotechnical Commission, with such energy consumption integrated into the overall energy efficiency, energy consumption, or other energy descriptor for each covered product, unless the Secretary determines that—

"(i) the current test procedures for a covered product already fully account for and incorporate its standby mode and off mode energy consumption; or

"(ii) such an integrated test procedure is technically infeasible for a particular covered product, whereupon the Secretary shall promulgate a separate standby mode and off mode energy use test procedure for such product, if technically feasible.

"(B) The test procedure amendments required by subparagraph (A) shall be prescribed in a final rule no later than the following dates:

"(i) December 31, 2008, for battery chargers and external power supplies.

"(ii) March 31, 2009, for clothes dryers, room air conditioners, and fluorescent lamp ballasts.

"(iii) June 30, 2009, for residential clothes washers.

"(iv) September 30, 2009, for residential furnaces and boilers.

"(v) March 31, 2010, for residential water heaters, direct heating equipment, and pool heaters.

"(vi) March 31, 2011, for residential dishwashers, ranges and ovens, microwave ovens, and dehumidifiers.

"(C) The test procedure amendments adopted pursuant to subparagraph (B) shall not be used to determine compliance with product standards established prior to the adoption of such amended test procedures.

"(3) INCORPORATION INTO STANDARD.—Based on the test procedures required under paragraph (2), any final rule establishing or revising a standard for a covered product, adopted after July 1, 2010, shall incorporate standby mode and off mode energy use into a single amended or new standard, pursuant to subsection (o), where feasible. Where not feasible, the Secretary shall promulgate within such final rule a separate standard for standby mode and off mode energy consumption, if justified under subsection (o).".

SEC. 9016. BATTERY CHARGERS.

Section 325(u) is amended—

(1) in paragraph (1)(E)(i)—

(A) by inserting "(I)" after "(E)(i)";

(B) by striking "battery chargers and" each place it appears; and

(C) by adding at the end the following new subclause:

"(II) Not later than July 1, 2011, the Secretary shall issue a final rule that prescribes energy conservation standards for battery chargers or classes of battery chargers or determine that no energy conservation standard is technically feasible and economically justified."; and

(2) in paragraph (4), by striking "3 years" and inserting "2 years".

SEC. 9017. WALK-IN COOLERS AND WALK-IN FREEZERS.

(a) DEFINITIONS.—Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended—

(1) in paragraph (1)—

(A) by redesignating subparagraphs (G) through (K) as subparagraphs (H) through (L), respectively; and

(B) by inserting after subparagraph (F) the following:

"(G) Walk-in coolers and walk-in freezers.";

(2) by redesignating paragraphs (20) and (21) as paragraphs (21) and (22), respectively; and

(3) by inserting after paragraph (19) the following:

"(20) The terms 'walk-in cooler' and 'walk-in freezer' mean an enclosed storage space refrigerated to temperatures, respectively, above and at or below 32 degrees Fahrenheit that can be walked into, and has a total chilled storage area of less than 3000 square feet. These terms exclude products designed and marketed exclusively for medical, scientific, or research purposes.".

(b) STANDARDS.—Section 342 of the Energy Policy and Conservation Act (42 U.S.C. 6313) is amended by adding at the end the following:

"(f) WALK-IN COOLERS AND WALK-IN FREEZERS.—(1) Each walk-in cooler or walk-in freezer manufactured on or after January 1, 2009, shall meet the following specifications:

"(A) Have automatic door closers that firmly close all walk-in doors that have been closed to within one inch of full closure. This requirement does not apply to doors wider than 3 feet 9 inches or taller than 7 feet.

"(B) Have strip doors, spring hinged doors, or other method of minimizing infiltration when doors are open.

"(C) Contain wall, ceiling, and door insulation of at least R–25 for coolers and R–32 for freezers.

Door insulation requirements do not apply to glazed portions of doors, nor to structural members.

"(D) Contain floor insulation of at least R–28 for freezers.

"(E) For evaporator fan motors of under one horsepower and less than 460 volts, use either—

"(i) electronically commutated motors (brushless direct current motors); or

"(ii) three-phase motors.

The portion of the requirement for electronically commuted motors shall take effect January 1, 2009, unless, prior to this date, the Secretary determines that such motors are only available from one manufacturer. The Secretary may also allow other types of motors if the Secretary determines that, on average, these other motors use no more energy in evaporator fan applications than electronically commutated motors. The Secretary shall establish this maximum energy consumption level no later than January 1, 2010.

"(F) For condenser fan motors of under one horsepower, use—

"(i) electronically commutated motors;

"(ii) permanent split capacitor-type motors; or

"(iii) three-phase motors.

"(G) For all interior lights, use light sources with an efficacy of 40 lumens per watt or more, including ballast losses (if any). Light sources with an efficacy of 40 lumens per watt or less, including ballast losses (if any), may be used in conjunction with a timer or device that turns off the lights within 15 minutes of when the walk-in cooler or walk-in freezer is not occupied.

"(2) Each walk-in cooler or walk-in freezer with transparent reach-in doors manufactured on or after January 1, 2009, shall also meet the following specifications:

"(A) Transparent reach-in doors and windows in walk-in doors for walk-in freezers shall be of triple-pane glass with either heat-reflective treated glass or gas fill.

"(B) Transparent reach-in doors for walk-in coolers and windows in walk-in doors shall be either—

"(i) double-pane glass with heat-reflective treated glass and gas fill; or

"(ii) triple pane glass with either heat-reflective treated glass or gas fill.

"(C) If the appliance has an antisweat heater without antisweat heat controls, then the appliance

shall have a total door rail, glass, and frame heater power draw of no more than 7.1 watts per square foot of door opening (for freezers) and 3.0 watts per square foot of door opening (for coolers).

"(D) If the appliance has an antisweat heater with antisweat heat controls, and the total door rail, glass, and frame heater power draw is more than 7.1 watts per square foot of door opening (for freezers) and 3.0 watts per square foot of door opening (for coolers), then the antisweat heat controls shall reduce the energy use of the antisweat heater in an amount corresponding to the relative humidity in the air outside the door or to the condensation on the inner glass pane.

"(3) Not later than January 1, 2012, the Secretary shall publish performance-based standards for walk-in coolers and walk-in freezers that achieve the maximum improvement in energy which the Secretary determines is technologically feasible and economically justified. Such standards shall apply to products manufactured three years after the final rule is published unless the Secretary determines, by rule, that three years is inadequate, in which case the Secretary may set an effective date for products

manufactured no greater than five years after the date of publication of a final rule for these products.

"(4) Not later than January 1, 2020, the Secretary shall publish a final rule to determine if the standards established under paragraph (3) should be amended. The rule shall provide that such standards shall apply to products manufactured three years after the final rule is published unless the Secretary determines, by rule, that three years is inadequate, in which case the Secretary may set an effective date for products manufactured no greater than five years after the date of publication of a final rule for these products.".

(c) TEST PROCEDURES.—Section 343(a) of the Energy Policy and Conservation Act (42 U.S.C. 6314(a)) is amended by adding at the end the following:

"(9) For walk-in coolers and walk-in freezers:

"(A) R value is defined as 1/K factor multiplied by the thickness of the panel. K factor shall be based on ASTM test procedure C518-2004. For calculating R value for freezers, the K factor of the foam at 20F (average foam temperature) shall be used. For calculating R value for coolers the K factor of the foam at 55F (average foam temperature) shall be used.

"(B) Not later than January 1, 2010, the Secretary shall establish a test procedure to measure the energy-use of walk-in coolers and walk-in freezers. Such test procedure may be based on computer modeling, if the computer model or models have been verified using the results of laboratory tests on a significant sample of walk-in coolers and walk-in freezers.".

(d) LABELING.—Section 344(e) of the Energy Policy and Conservation Act (42 U.S.C. 6315(e)) is amended by inserting "walk-in coolers and walk-in freezers," after "commercial clothes washers," each place it appears.

(e) ADMINISTRATION, PENALTIES, ENFORCEMENT, AND PREEMPTION.—Section 345 of the Energy Policy and Conservation Act (42 U.S.C. 6316), is amended—

(1) by striking "subparagraphs (B), (C), (D), (E), and (F)" and inserting "subparagraphs (B), (C), (D), (E), (F), and (G)" each place it appears; and

(2) by adding at the end the following:

"(h)(1)(A)(i) Except as provided in clause (ii) and paragraphs (2) and (3), section 327 shall apply to walk-in coolers and walk-in freezers for which standards have been established under paragraphs (1) and (2) of section 342(f) to the same extent and in the same manner as the

1 section applies under part A on the date of enactment of
2 this subsection.

3 "(ii) Any State standard issued before the date of en-
4 actment of this subsection shall not be preempted until
5 the standards established under paragraphs (1) and (2)
6 of section 342(f) take effect.

7 "(B) In applying section 327 to the equipment under
8 subparagraph (A), paragraphs (1), (2), and (3) of sub-
9 section (a) shall apply.

10 "(2)(A) If the Secretary does not issue a final rule
11 for a specific type of walk-in cooler or walk-in freezer with-
12 in the time frame specified in section 342(f)(3) or (4),
13 subsections (b) and (c) of section 327 shall no longer apply
14 to the specific type of walk-in cooler or walk-in freezer for
15 the period beginning on the day after the scheduled date
16 for a final rule and ending on the date on which the Sec-
17 retary publishes a final rule covering the specific type of
18 walk-in cooler or walk-in freezer.

19 "(B) Any State standard issued before the publica-
20 tion of the final rule shall not be preempted until the
21 standards established in the final rule take effect.

22 "(3) Any standard issued in the State of California
23 before January 1, 2011, under Title 20 of the California
24 Code of Regulations, which refers to walk-in coolers and
25 walk-in freezers, for which standards have been estab-

lished under paragraphs (1) and (2) of section 342(f), shall not be preempted until the standards established under paragraph (3) of section 342(f) take effect.''.

PART 2—LIGHTING EFFICIENCY

SEC. 9021. EFFICIENT LIGHT BULBS.

(a) PROHIBITION.—

(1) REGULATIONS.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall issue regulations—

(A) prohibiting the sale of 100 watt general service incandescent lamps after January 1, 2012, unless those lamps emit at least 60 lumens per watt;

(B) prohibiting the sale of general service lamps manufactured after the effective dates shown in the table below that do not meet the minimum efficacy levels (lumens/watt) shown in the following table:

Minimum Efficacy Levels and Effective Dates

Lumen Range (Lumens)	Minimum Efficacy (Lumens/Watt)	Effective Dates
200–449	15	1/1/2014
450–699	17	1/1/2014
700–999	20	1/1/2013
1000–1500	22	1/1/2012
1501–3000	24	1/1/2012

(C) after January 1, 2020, prohibiting the sale of general service lamps that emit less than 300 percent of the average lumens per watt emitted by 100 watt incandescent general service lamps that are commercially available as of the date of enactment of this Act;

(D) establishing a minimum color rendering index (CRI) of 80 or higher for all general service lamps manufactured as of the effective dates in subparagraph (B); and

(E) prohibiting the manufacture or import for sale in the United States of an adapter device designed to allow a lamp with a different base to fit into a medium screw base socket manufactured after January 1, 2009.

(2) EXEMPTIONS.—The regulations issued under paragraph (1) shall include procedures for the Secretary to exempt specialty lamps from the requirements of paragraph (1). The Secretary may provide such an exemption only in cases where the Secretary finds, after a hearing and opportunity for public comment, that it is not technically feasible to serve a specialized lighting application, such as a military, medical, public safety application, or in certified historic lighting applications using bulbs that

meet the requirements of paragraph (1). In addition, the Secretary shall include as an additional criterion that exempted products are unlikely to be used in the general service lighting applications.

(3) ADDITIONAL LAMPS TYPES.—

(A) Manufacturers of rough service, vibration service, vibration resistant, appliance, shatter resistant, and three-way lamps shall report annual sales volume to the Secretary. If the Secretary determines that annual sales volume for any of these lamp types increases by 100 percent relative to 2009 sales in any later year, then such lamps shall by subject to the following standards:

(i) Appliance lamps shall use no more than 40 watts.

(ii) Rough service lamps shall use no more than 40 watts.

(iii) Vibration service and vibration resistant lamps shall use no more than 40 watts.

(iv) Three-way lamps shall comply with the standards in paragraph (1) at each level of rated lumen output.

(B) Rough service, vibration service, vibration resistant, appliance, shatter resistant, and three-way lamps shall be available for sale at retail in single packs only.

(4) CIVIL PENALTY.—The Secretary of Energy shall include in regulations under this subsection a schedule of appropriate civil penalties for violations of the prohibitions under this subsection. Such penalties shall be in an amount sufficient to ensure compliance with this section.

(5) STATE PREEMPTION.—State standards for general service lamps are preempted as of the date of enactment of this Act, except—

(A) any State standard already enacted or adopted as of the date of enactment of this Act may be enforced until the Federal effective dates for each lamp category, and such States may modify existing State standards for general service lamps to conform with the standards in paragraph (1) at any time;

(B) any State standard identical to the standards in paragraph (1)(B) with an effective date no sooner than January 1, 2015; and

(C) any State standard identical to Federal standards, after such Federal standards are in effect.

(6) DEFINITIONS.—For purposes of this section, the following definitions apply:

(A) The term ''general service lamp'' means a nonreflectorized lamp that—

(i) is intended for general service applications;

(ii) has a medium screw base;

(iii) has an initial lumen output no less than 200 lumens and no more than 3000 lumens;

(iv) has an input voltage range at least partially within 110 and 130 volts;

(v) has a A–15, A–19, A–21, A–23, A–25, PS–25, PS–30, BT–14.5, BT–15, CP–19, TB–19, CA–22, or similar shape as defined in ANSI C78.20–2003; and

(vi) has a bulb finish of the frosted, clear, soft white, modified spectrum, enhanced spectrum, full spectrum, or equivalent type.

The following incandescent lamps are not general service lamps: appliance, black light, bug,

colored, infrared, left-hand thread, marine, marine signal service, mine service, plant light, reflector, rough service, shatter resistant, sign service, silver bowl, three-way, traffic signal, and vibration service or vibration resistant.

(B) The term ''appliance lamp'' means any lamp specifically designed to operate in a household appliance. Examples of appliance lamps include oven lamps, refrigerator lamps, and vacuum cleaner lamps.

(C) The term ''black light lamp'' means a lamp that emits radiant energy in the UV–A band (315-400 nm) and is designated and marketed as a ''black light''.

(D) The term ''bug lamp'' means a lamp that contains a filter to suppress the blue and green portions of the visible spectrum and is designated and marketed as a ''bug light''.

(E) The term ''colored incandescent lamp'' means an incandescent lamp designated and marketed as a colored lamp that has a CRI of less than 50, as determined according to the test method given in CIE publication 13.2, and has a correlated color temperature less than 2,500K, or greater than 4,600K, where cor-

related color temperature is defined as the absolute temperature of a blackbody whose chromaticity nearly resembles that of the light source.

(F) The term ''infrared lamp'' means a lamp that radiates predominately in the infrared region of the electromagnetic spectrum, and where visible radiation is not of principal interest.

(G) The term ''lamp'' means an electrical appliance that includes a glass envelope and produces optical radiation for the purpose of visual illumination, designed to be installed into a luminaire by means of an integral lamp-holder. Types of lamps include incandescent, fluorescent, and high intensity discharge (high pressure sodium and metal halide).

(H) The term ''left-handed thread lamp'' means a lamp on which the base screws into a lamp socket in a counter-clockwise direction, and screws out of a lamp socket in a clockwise direction.

(I) The term ''marine lamp'' means a lamp specifically designed and marketed to operate in a marine application.

(J) The term ''marine signal service lamp'' means a lamp specifically designed to provide signals to marine vessels for seaway safety.

(K) The term ''mine service lamp'' means a lamp specifically designed and marketed for use in mine applications.

(L) The term ''plant light lamp'' means a lamp that contains a filter to suppress yellow and green portions of the spectrum and is designated and marketed as a ''plant light''.

(M) The term ''rough service lamp'' means a lamp that has a minimum of 5 supports with filament configurations similar to but not limited to C7A, C11, C17, and C22 as listed in Figure 6–12 of the 9th edition of the IESNA Lighting handbook, where lead wires are not counted as supports and that is designated and marketed specifically for ''rough service'' applications.

(N) The term ''shatter resistant lamp'' means a lamp with an external coating on the bulb wall to resist breakage and which is designated and marketed as a shatter resistant lamp.

(O) The term ''showcase lamp'' means a lamp that has a tubular bulb with a conventional screw base and which is designated and marketed as a showcase lamp.

(P) The term ''sign service lamp'' means a lamp of the vacuum type or gas-filled with sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a sign service lamp.

(Q) The term ''silver bowl lamp'' means a lamp that has a reflective coating applied directly to part of the bulb surface and that reflects light in a backward direction toward the lamp base. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a silver bowl lamp or similar designation.

(R) The term ''three-way lamp'' means a lamp that employs two filaments, operated separately and in combination, to provide three light levels. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being a three-way lamp.

(S) The term ''traffic signal lamp'' means a lamp that is designed with lifetime, wattage, focal length, filament configuration, mounting, lamp glass, and lamp base characteristics appropriate for use in traffic signals.

(T) The term ''vibration service lamp'' or ''vibration resistant lamp'' means a lamp with filament configurations similar to but not limited to C–5, C–7A, or C–9, as listed in Figure 6–12 of the 9th Edition of the IESNA Lighting Handbook. The lamp is designated and marketed specifically for vibration service or vibration resistant applications. The designation shall be on the lamp packaging, and marketing materials shall identify the lamp as being vibration resistant or vibration service.

(b) INCENTIVE PLAN AND PUBLIC EDUCATION.—

(1) INCENTIVE PLAN.—Not later than 6 months after the date of enactment of this Act, the Secretary of Energy shall transmit to the Congress a plan for encouraging and providing incentives for the domestic production of light bulbs by United States manufacturers that meet the efficacy levels shown in the table in subsection (a)(1)(B).

(2) LABELING RULEMAKING.—The Federal Trade Commission shall conduct a rulemaking to consider the effectiveness of current lamp labeling requirements and to consider alternative labeling approaches that will help consumers to understand new high-efficiency lamp products. Such labeling shall include, at a minimum, information on lighting output (lumens), input power (watts), efficiency (lumens per watt), lamp rated lifetime (hours), annual or lifetime energy operating cost, and any hazardous materials (such as mercury) that may be contained in lamp products. The Federal Trade Commission shall complete this rulemaking within one year after the date of enactment of this Act.

(3) NATIONAL SALES DATA TRACKING SYSTEM.—The Secretary of Energy shall develop and implement within one year after the date of enactment of this Act a national sales data tracking system in conjunction with the National Electrical Manufacturers Association and other stakeholders for lamp technologies, including Light Emitting Diodes, halogens, incandescents, and compact fluorescent lamps.

(c) REPORT ON MERCURY USE AND RELEASE.—Not later than 1 year after the date of enactment of this Act,

the Secretary of Energy, in cooperation with the Administrator of the Environmental Protection Agency, shall submit to Congress a report describing recommendations relating to the means by which the Federal Government may reduce or prevent the release of mercury during the manufacture, transportation, storage, or disposal of general service lamps.

SEC. 9022. INCANDESCENT REFLECTOR LAMPS.

(a) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended—

(1) in paragraph (30)(C)(ii)—

(A) in the matter preceding subclause (I)—

(i) by striking ''or similar bulb shapes (excluding ER or BR)'' and inserting ''ER, BR, BPAR, or similar bulb shapes''; and

(ii) by striking ''2.75'' and inserting ''2.25''; and

(B) by striking ''is either—'' and all that follows through subclause (II) and inserting ''has a rated wattage that is greater than 40 watts.''; and

(2) by adding at the end the following:

"(53) The term 'BPAR incandescent reflector lamp' means a reflector lamp as shown in figure C78.21–278 on page 32 of ANSI C78.21–2003.

"(54)(A) The term 'BR incandescent reflector lamp' means a reflector lamp that has—

"(i) a bulged section below the major diameter of the bulb and above the approximate baseline of the bulb, as shown in figure 1 (RB) on page 7 of ANSI C79.1–1994, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

"(ii) a finished size and shape shown in ANSI C78.21–1989, including the referenced reflective characteristics in part 7 of ANSI C78.21.

"(B) The term 'BR30' refers to a BR incandescent reflector lamp with a diameter of 30/8ths of an inch and the term 'BR40' refers to a BR incandescent reflector lamp with a diameter of 40/8ths of an inch.

"(55)(A) The term 'ER incandescent reflector lamp' means a reflector lamp that has—

"(i) an elliptical section below the major diameter of the bulb and above the approximate

baseline of the bulb, as shown in figure 1 (RE) on page 7 of ANSI C79.1–1994, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

"(ii) a finished size and shape shown in ANSI C78.21–1989, incorporated by reference in section 430.22 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this paragraph).

"(B) The term 'ER30' refers to an ER incandescent reflector lamp with a diameter of 30/8ths of an inch and the term 'ER40' refers to an ER incandescent reflector lamp with a diameter of 40/8ths of an inch.

"(56) The term 'R20 incandescent reflector lamp' means a reflector lamp that has a face diameter of approximately 2.5 inches, as shown in figure 1(R) on page 7 of ANSI C79.1–1994.".

(b) STANDARDS FOR FLUORESCENT LAMPS AND INCANDESCENT REFLECTOR LAMPS.—Section 325(i) of the Energy Policy and Conservation Act (42 U.S.C. 6925(i)) is amended by striking paragraph (1) and inserting the following:

"(1) STANDARDS.—

"(A) DEFINITION OF EFFECTIVE DATE.—In this paragraph, except as specified in subparagraphs (C) and (D), the term 'effective date' means, with respect to each type of lamp specified in a table contained in subparagraph (B), the last day of the period of months corresponding to that type of lamp, as specified in the table, that follows the date of enactment of the Energy Efficiency Improvement Act of 2007.

"(B) MINIMUM STANDARDS.—Each of the following general service fluorescent lamps and incandescent reflector lamps manufactured after the effective date specified in the tables contained in this paragraph shall meet or exceed the following lamp efficacy and CRI standards:

"FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
4-foot medium bi-pin	>35 W	69	75.0	36
	≤35 W	45	75.0	36
2-foot U-shaped	>35 W	69	68.0	36
	≤35 W	45	64.0	36
8-foot slimline	65 W	69	80.0	18
	≤65 W	45	80.0	18
8-foot high output	>100 W	69	80.0	18
	≤100 W	45	80.0	18

"INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
40–50	10.5	36
51–66	11.0	36
67–85	12.5	36
86–115	14.0	36
116–155	14.5	36
156–205	15.0	36

"(C) EXEMPTIONS.—The standards specified in subparagraph (B) shall not apply to the following types of incandescent reflector lamps:

"(i) Lamps rated at 50 watts or less of the following types: ER30, BR30, BR40, and ER40 lamps.

"(ii) Lamps rated at 65 watts of the following types: BR30, BR40, and ER40 lamps.

"(iii) R20 incandescent reflector lamps of 45 watts or less.

"(D) EFFECTIVE DATES.—

"(i) ER, BR, AND BPAR LAMPS.—Except as provided in subparagraph (A), the standards specified in subparagraph (B) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008.

"(ii) LAMPS BETWEEN 2.25–2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (B) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after January 1, 2008.".

SEC. 9023. USE OF ENERGY EFFICIENT LIGHTING FIXTURES AND BULBS.

(a) IN GENERAL.—Chapter 33 of title 40, United States Code, is amended—

(1) by redesignating sections 3313, 3314, and 3315 as sections 3314, 3315, and 3316, respectively; and

(2) by inserting after section 3312 the following:

"§ 3313. Use of energy efficient lighting fixtures and bulbs

"(a) CONSTRUCTION AND ALTERATION OF PUBLIC BUILDINGS.—Each public building constructed or significantly altered by the Administrator of General Services shall be equipped, to the maximum extent feasible as determined by the Administrator, with lighting fixtures and bulbs that are energy efficient.

"(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each lighting fixture or bulb that is replaced by the Administrator in the normal course of maintenance of public buildings shall be replaced, to the maximum extent feasible as determined by the Administrator, with a lighting fixture or bulb that is energy efficient.

"(c) CONSIDERATIONS.—In making a determination under this section concerning the feasibility of installing a lighting fixture or bulb that is energy efficient, the Administrator shall consider—

"(1) the life cycle cost effectiveness of the fixture or bulb;

"(2) the compatibility of the fixture or bulb with existing equipment;

"(3) whether use of the fixture or bulb could result in interference with productivity;

"(4) the aesthetics relating to use of the fixture or bulb; and

"(5) such other factors as the Administrator determines appropriate.

"(d) ENERGY STAR.—A lighting fixture or bulb shall be treated as being energy efficient for purposes of this section if—

"(1) the fixture or bulb is certified under the Energy Star program established by section 324A of

the Energy Policy and Conservation Act (42 U.S.C. 6294a);

"(2) in the case of all LED luminaires, lamps, and systems whose efficacy (lumens per watt) and Color Rendering Index (CRI) meet the requirements for minimum luminaire efficacy and CRI for the Energy Star certification, as verified by an independent third-party testing laboratory that conducts its tests according to the procedures and recommendations of the Illuminating Engineering Society of North America, even if these luminaires, lamps, and systems have not received such certification; or

"(3) the Administrator has otherwise determined that the fixture or bulb is energy efficient.

"(e) SIGNIFICANT ALTERATIONS.—A public building shall be treated as being significantly altered for purposes of subsection (a) if the alteration is subject to congressional approval under section 3307.

"(f) EFFECTIVE DATE.—The requirements of subsections (a) and (b) shall take effect one year after the date of enactment of this subsection.".

(b) CONFORMING AMENDMENT.—The analysis for chapter 33 of title 40, United States Code, is amended by striking the items relating to sections 3313, 3314, and 3315 and inserting the following:

"3313. Use of energy efficient lighting fixtures and bulbs.

''3314. Delegation.
''3315. Report to Congress.
''3316. Certain authority not affected.''.

SEC. 9024. METAL HALIDE LAMP FIXTURES.

(a) DEFINITIONS.—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by adding at the end the following:

''(57) The term 'ballast' means a device used with an electric discharge lamp to obtain necessary circuit conditions (voltage, current, and waveform) for starting and operating.

''(58) The term 'metal halide lamp' means a high intensity discharge lamp in which the major portion of the light is produced by radiation of metal halides and their products of dissociation, possibly in combination with metallic vapors.

''(59) The term 'metal halide lamp fixture' means a light fixture for general lighting application designed to be operated with a metal halide lamp and a ballast for a metal halide lamp.

''(60) The term 'metal halide ballast' means a ballast used to start and operate metal halide lamps.

''(61) The term 'pulse-start metal halide ballast' means an electronic or electromagnetic ballast that starts a pulse start metal halide lamp with high voltage pulses. Lamps are started by first providing a high voltage pulse for ionization of the gas to

1 produce a glow discharge. To complete the starting
2 process, power is provided by the ballast to sustain
3 the discharge through the glow-to-arc transition.

4 ''(62) The term 'probe-start metal halide bal-
5 last' means a ballast that starts a probe start metal
6 halide lamp which contains a third starting electrode
7 (probe) in the arc tube. This ballast does not gen-
8 erally contain an igniter and instead starts lamps
9 with high ballast open circuit voltage.

10 ''(63) The term 'electronic ballast' means a de-
11 vice that uses semiconductors as the primary means
12 to control lamp starting and operation.

13 ''(64) The term 'general lighting application'
14 means lighting that provides an interior or exterior
15 area with overall illumination.

16 ''(65) The term 'ballast efficiency' for a high in-
17 tensity discharge fixture means the efficiency of a
18 lamp and ballast combination, expressed as a per-
19 centage, and calculated by Efficiency = Pout/Pin, as
20 measured. Pout is the measured operating lamp
21 wattage, and Pin is the measured operating input
22 wattage. The lamp, and the capacitor when it is pro-
23 vided, is to constitute a nominal system in accord-
24 ance with the ANSI Standard C78.43-2004. Pin and
25 Pout are to be measured after lamps have been sta-

bilized according to Section 4.4 of ANSI Standard C82.6-2005 using a wattmeter with accuracy specified in Section 4.5 of ANSI Standard C82.6-2005 for ballasts with a frequency of 60 Hz, and shall have a basic accuracy of ± 0.5 percent at the higher of—

"(A) three times the output operating frequency of the ballast; or

"(B) 2 kHz for ballast with a frequency greater than 60 Hz.

The Secretary may, by rule, modify this definition if he determines that such modification is necessary or appropriate to carry out the purposes of this Act.".

(b) COVERAGE.—Section 322(a) of the Energy Policy and Conservation Act (42 U.S.C. 6292(a)) is amended—

(1) by redesignating paragraph (19) as paragraph (20); and

(2) by inserting after paragraph (18) the following:

"(19) Metal halide lamp fixtures.".

(c) TEST PROCEDURES.—Section 323(c) of the Energy Policy and Conservation Act (42 U.S.C. 6293(c)) is amended by adding at the end the following:

"(17) Test procedures for metal halide lamp ballasts shall be based on American National Standards Institute

Standard C82.6-2005, entitled 'Ballasts for High Intensity Discharge Lamps—Method of Measurement'.''.

(d) LABELING.—Section 324(a)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended—

(1) by redesignating subparagraphs (C) through (G) as subparagraphs (D) through (H), respectively; and

(2) by inserting after subparagraph (B) the following:

''(C) The Commission shall prescribe labeling rules under this section applicable to the covered product specified in paragraph (19) of section 322(a) and to which standards are applicable under section 325. Such rules shall provide that the labeling of any metal halide lamp fixture manufactured on or after the later of January 1, 2009, or nine months after enactment of this subparagraph, will indicate conspicuously, in a manner prescribed by the Commission under subsection (b) by July 1, 2008, a capital letter 'E' printed within a circle on the packaging of the fixture, and on the ballast contained in such fixture.''.

(e) STANDARDS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(1) by redesignating subsection (gg) as subsection (hh);

(2) by inserting after subsection (ff) the following:

"(gg) METAL HALIDE LAMP FIXTURES.—

"(1)(A) Metal halide lamp fixtures designed to be operated with lamps rated greater than or equal to 150 watts but less than or equal to 500 watts shall contain—

"(i) a pulse-start metal halide ballast with a minimum ballast efficiency of 88 percent;

"(ii) a magnetic probe-start ballast with a minimum ballast efficiency of 94 percent; or

"(iii) a non-pulse-start electronic ballast with a minimum ballast efficiency of 92 percent for wattages greater than 250 watts and a minimum ballast efficiency of 90 percent for wattages less than or equal to 250 watts.

"(B) The standards in subparagraph (A) do not apply to fixtures with regulated lag ballasts, fixtures that use electronic ballasts that operate at 480 volts, or fixtures that meet all of the following criteria:

"(i) Rated only for 150 watt lamps.

"(ii) Rated for use in wet locations as specified by the National Electrical Code 2002, Section 410.4(A).

"(iii) Contain a ballast that is rated to operate at ambient air temperatures above 50° C as specified by UL 1029–2001.

"(C) The standard in subparagraph (A) shall apply to metal halide lamp fixtures manufactured on or after the later of January 1, 2009, or 9 months after the date of enactment of this subsection.

"(2) Not later than January 1, 2012, the Secretary shall publish a final rule to determine whether the standards established under paragraph (1) should be amended. Such final rule shall contain the amended standards, if any, and shall apply to products manufactured after January 1, 2015.

"(3) Not later than January 1, 2019, the Secretary shall publish a final rule to determine whether the standards then in effect should be amended. Such final rule shall contain the amended standards, if any, and shall apply to products manufactured after January 1, 2022.

"(4) Notwithstanding any other provision of law, any standard established pursuant to this sub-

section may contain both design and performance requirements.''; and

(3) in subsection (hh), as so redesignated by paragraph (1) of this subsection, by striking ''(ff)'' both places it appears and inserting ''(gg)''.

(f) EFFECT ON OTHER LAW.—Section 327(c) of the Energy Policy and Conservation Act (42 U.S.C. 6297(c)) is amended—

(1) by striking the period at the end of paragraph (8)(B) and inserting ''; and''; and

(2) by adding at the end the following:

''(9) is a regulation concerning metal halide lamp fixtures adopted by the California Energy Commission on or before January 1, 2011. If the Secretary fails to issue a final rule within 6 months after the deadlines for rulemakings in section 325(gg) then, notwithstanding any other provision of this section, preemption does not apply to a regulation concerning metal halide lamp fixtures adopted by the California Energy Commission on or before July 1, 2015, if the Secretary misses the deadline specified in paragraph (2) of section 325(gg), or on or before July 1, 2022, if the Secretary misses the deadline specified in paragraph (3) of section 325(gg).''.

PART 3—RESIDENTIAL BUILDING EFFICIENCY

SEC. 9031. ENCOURAGING STRONGER BUILDING CODES.

(a) IN GENERAL.—Section 304 of the Energy Conservation and Production Act (42 U.S.C. 6833) is amended to read as follows:

"SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.

''(a) UPDATING NATIONAL MODEL BUILDING ENERGY CODES.—(1) The Secretary shall support updating the national model building energy codes and standards at least every three years to achieve overall energy savings, compared to the 2006 IECC for residential buildings and ASHRAE Standard 90.1 2004 for commercial buildings, of at least—

''(A) 30 percent by 2010;

''(B) 50 percent by 2020; and

''(C) targets to be set by the Secretary in intermediate and subsequent years, at the maximum level of energy efficiency that is technologically feasible and life-cycle cost effective.

''(2)(A) Whenever the provisions of the IECC or ASHRAE Standard 90.1 regarding building energy use are revised, the Secretary shall, not later than 6 months after the date of such revision, determine—

''(i) whether such revision will improve energy efficiency in buildings; and

1 "(ii) whether such revision will meet the targets
2 under paragraph (1).
3 "(B) If the Secretary makes a determination under
4 subparagraph (A)(ii) that a code or standard does not
5 meet the targets under paragraph (1), or if a national
6 model code or standard is not updated for more than three
7 years, then the Secretary shall within 12 months propose
8 a modified code or standard that meets such targets. Any
9 such modified code or standard shall achieve the maximum
10 level of energy savings that are technically feasible and
11 economically justified, incorporating available appliances,
12 technologies, materials, and construction practices. The
13 modified code or standard shall serve as the baseline for
14 the next determination under subparagraph (A)(i).
15 "(C) The Secretary shall provide the opportunity for
16 public comment on targets, determinations, and modified
17 codes and standards under this subsection, and shall pub-
18 lish notice of targets, determinations, and modified codes
19 and standards under this subsection in the Federal Reg-
20 ister.
21 "(b) STATE CERTIFICATION OF BUILDING ENERGY
22 CODE UPDATES.—(1) Not later than 2 years after the
23 date of enactment of the Energy Efficiency Improvement
24 Act of 2007, each State shall certify to the Secretary that
25 it has reviewed and updated the provisions of its residen-

tial and commercial building codes regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the 2006 IECC for residential buildings and the ASHRAE Standard 90.1–2004 for commercial buildings, or achieve equivalent or greater energy savings.

"(2)(A) If the Secretary makes an affirmative determination under subsection (a)(2)(A)(i) or proposes a modified code or standard under subsection (a)(2)(B), each State shall within 2 years certify that it has reviewed and updated the provisions of its building code regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the revised code or standard, or achieve equivalent or greater energy savings.

"(B) If the Secretary fails to make a determination under subsection (a)(2)(A)(i) by the date specified in subsection (a)(2), or makes a negative determination, each State shall within 2 years after the specified date or the date of the determination, certify that it has reviewed the revised code or standard, and updated the provisions of its building code regarding energy efficiency to meet or exceed any provisions found to improve energy efficiency in buildings, or to achieve equivalent or greater energy savings in other ways.

"(c) STATE CERTIFICATION OF COMPLIANCE WITH BUILDING CODES.—(1) Each State shall, not later than 3 years after a certification under subsection (b), certify that it has achieved compliance with the certified building energy code. Such certification shall include documentation of the rate of compliance based on independent inspections of a random sample of the new and renovated buildings covered by the code in the preceding year.

"(2) A State shall be considered to achieve compliance under paragraph (1) if—

"(A) at least 90 percent of new and renovated buildings covered by the code in the preceding year substantially meet all the requirements of the code; or

"(B) the estimated excess energy use of new and renovated buildings that did not meet the code in the preceding year, compared to a baseline of comparable buildings that meet the code, is not more than 10 percent of the estimated energy use of all new and renovated buildings covered by the code in the preceding year.

"(d) FAILURE TO MEET DEADLINES.—(1) The Secretary shall permit extensions of the deadlines for the certification requirements under subsections (b) and (c) of this section for up to 1 year if a State can demonstrate

that it has made a good faith effort to comply with such requirements and that it has made significant progress in doing so.

"(2) Any State for which the Secretary has not accepted a certification by a deadline under subsection (b) or (c) of this section, with any extension granted under paragraph (1), is out of compliance with this section.

"(3) In any State that is out of compliance with this section, a local government may be in compliance with this section by meeting the certification requirements under subsections (b) and (c) of this section.

"(e) TECHNICAL ASSISTANCE.—(1) The Secretary shall provide technical assistance, including building energy analysis and design tools, building demonstrations, and design assistance and training to enable the national model building energy codes and standards to meet the targets in subsection (a)(1).

"(2) The Secretary shall provide technical assistance to States to implement the requirements of this section, including procedures for States to demonstrate that their code provisions achieve equivalent or greater energy savings than the national model codes and standards, and to improve and implement State residential and commercial building energy efficiency codes or to otherwise promote the design and construction of energy efficient buildings.

"(f) AVAILABILITY OF INCENTIVE FUNDING.—(1) The Secretary shall provide incentive funding to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes, including increasing and verifying compliance with such codes. In determining whether, and in what amount, to provide incentive funding under this subsection, the Secretary shall consider the actions proposed by the State to implement the requirements of this section, to improve and implement residential and commercial building energy efficiency codes, and to promote building energy efficiency through the use of such codes.

"(2) Additional funding shall be provided under this subsection for implementation of a plan to achieve and document at least a 90 percent rate of compliance with residential and commercial building energy efficiency codes, based on energy performance—

"(A) to a State that has adopted and is implementing, on a Statewide basis—

"(i) a residential building energy efficiency code that meets or exceeds the requirements of the 2006 IECC, or any succeeding version of that code that has received an affirmative de-

termination from the Secretary under subsection (a)(2)(A)(i); and

"(ii) a commercial building energy efficiency code that meets or exceeds the requirements of the ASHRAE Standard 90.1-2004, or any succeeding version of that standard that has received an affirmative determination from the Secretary under subsection (a)(2)(A)(i); or

"(B) in a State in which there is no Statewide energy code either for residential buildings or for commercial buildings, or where State codes fail to comply with subparagraph (A), to a local government that has adopted and is implementing residential and commercial building energy efficiency codes, as described in subparagraph (A).

"(3) Of the amounts made available under this subsection, the Secretary may use amounts required, not exceeding $500,000 for each State, to train State and local officials to implement codes described in paragraph (2).

"(4)(A) There are authorized to be appropriated to carry out this subsection—

"(i) $25,000,000 for each of fiscal years 2008 through 2012; and

"(ii) such sums as are necessary for fiscal year 2013 and each fiscal year thereafter.

"(B) Funding provided to States under paragraph (2) for each fiscal year shall not exceed one-half of the excess of funding under this subsection over $5,000,000 for the fiscal year.".

(b) DEFINITION.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended by adding at the end the following new paragraph:

"(17) The term 'IECC' means the International Energy Conservation Code.".

SEC. 9032. ENERGY CODE IMPROVEMENTS APPLICABLE TO MANUFACTURED HOUSING.

(a) IN GENERAL.—Not later than 4 years after the date of enactment of this Act, the Secretary of Energy shall by regulation establish standards for energy efficiency in manufactured housing. Such standards shall be established after notice and an opportunity for comment by manufacturers of manufactured housing and other interested parties, and after consultation with the Secretary of Housing and Urban Development who may seek further counsel from the Manufactured Housing Consensus Committee.

(b) CERTAIN REQUIREMENTS.—The regulations under subsection (a) shall be in accordance with the following:

(1) The energy conservation standards established under this subsection shall be based on the most recent version of the International Energy Conservation Code (including supplements) except where the Secretary finds that such code is not cost-effective, or a more stringent standard would be more cost-effective, based on total life-cycle construction and operating costs.

(2) The energy conservation standards established under this subsection may—

(A) take into consideration the design and factory construction techniques of manufactured homes;

(B) be based on the climate zones established by the Department of Housing and Urban Development rather than those under the International Energy Conservation Code; and

(C) provide for alternative practices that result in net estimated energy consumption equal to or less than the specified standards.

(3) The energy conservation standards established under this subsection shall be updated within one year after the date of enactment of this Act and

within one year after any revision to the International Energy Conservation Code.

(c) ENFORCEMENT.—Any manufacturer of manufactured housing that violates a provision of the regulations under subsection (a) is liable to the United States for a civil penalty in an amount not exceeding 1 percent of the manufacturer's retail list price of the manufactured housing.

SEC. 9033. BASELINE BUILDING DESIGNS.

Section 327(f)(3)(D) of the Energy Policy and Conservation Act (42 U.S.C. 6297(f)(3)(D)) is amended to read as follows:

"(D) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline building designs contain a covered product subject to an energy conservation standard established in or prescribed under section 325, the baseline building designs are based on the efficiency level for such covered product which—

"(i) meets but does not exceed such standard;

"(ii) is the efficiency level required by a regulation of that State for which the Secretary

has issued a rule granting a waiver under subsection (d) of this section; or

"(iii) is a level that, when evaluated in the baseline building design, the State has found to be feasible and cost-effective.".

SEC. 9034. REAUTHORIZATION OF WEATHERIZATION ASSISTANCE PROGRAM.

(a) AMENDMENT.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking "$500,000,000 for fiscal year 2006, $600,000,000 for fiscal year 2007, and $700,000,000 for fiscal year 2008" and inserting "$1,200,000,000 for fiscal year 2007, and $1,400,000,000 for each of fiscal years 2008, 2009, 2010, 2011, and 2012. From those sums, the Secretary is authorized to initiate an Alternative Delivery System Pilot Project to examine options for decreasing energy consumption associated with heating and cooling while increasing household participation by focusing on key energy saving components. Alternative Delivery System Pilot Projects should be undertaken in both hot and cold urban areas. In implementing the Alternative Delivery System Pilot Project, the Secretary shall consider: (1) the expected effectiveness and benefits of the proposed Pilot Project to low- and moderate-income energy consumers; (2) the potential for replication of successful re-

sults; (3) the impact on the energy costs of those served; and (4) the extent of partnerships with other public and private entities that contribute to the resources and implementation of the program, including financial partnerships. Funding for such projects may equal up to two percent of funding in any fiscal year, provided that no funding is utilized for such demonstrations in any fiscal year in which Weatherization appropriations are less than $275,000,000''.

(b) SUSTAINABLE ENERGY RESOURCES FOR CONSUMERS GRANTS.—(1) The Secretary of Energy may make funding available to local Weatherization agencies from amounts authorized under the amendment made by subsection (a) to expand the weatherization assistance program for residential buildings to include materials, benefits, and renewable and domestic energy technologies not currently covered by the program, provided that the State Weatherization grantee has certified that the applicant has the capacity to carry out the proposed activities and that the grantee will include the project in its financial oversight of the Weatherization Assistance program.

(2) In selecting the grants, the program shall give priority to—

(A) the expected effectiveness and benefits of the proposed project to low- and moderate income energy consumers;

(B) the potential for replication of successful results;

(C) the impact on the health and safety and energy costs of those served; and

(D) the extent of partnerships with other public and private entities that contribute to the resources and implementation of the program, including financial partnerships.

(3) Funding for such projects may equal up to two percent of funding in any fiscal year, provided that no funding is utilized for Sustainable Energy Resources for Consumers grants in any fiscal year in which Weatherization appropriations are less than $275,000,000.

SEC. 9035. RENEWABLE ENERGY REBATE PROGRAM STUDY.

Not later than 120 days after the date of enactment of this Act, the Secretary of Energy shall conduct, and transmit to Congress a report on, a study regarding the rebate program described in section 206(c) of the Energy Policy Act of 2005. The study shall—

(1) develop a plan for how such a rebate program would be carried out if it were funded; and

(2) determine the minimum amount of funding the program would need to receive in order to accomplish the goal of encouraging consumers to install renewable energy systems in their homes or small businesses.

PART 4—COMMERCIAL AND FEDERAL BUILDING EFFICIENCY

SEC. 9041. DEFINITIONS.

In this part:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of General Services.

(2) ADVISORY COMMITTEE.—The term ''Advisory Committee'' means the Green Building Advisory Committee established under section 9042(c)(2).

(3) COMMERCIAL DIRECTOR.—The term ''Commercial Director'' means the individual appointed to the position established under section 9043(a).

(4) CONSORTIUM.—The term ''Consortium'' means the High-Performance Green Building Partnership Consortium created in response to section 9042(c)(1) to represent the private sector in a public-private partnership to promote high-performance

green buildings and zero-net-energy commercial buildings.

(5) FEDERAL DIRECTOR.—The term ''Federal Director'' means the individual appointed to the position established under section 9042(a).

(6) FEDERAL FACILITY.—The term ''Federal facility'' means any building that is constructed, renovated, leased, or purchased in part or in whole for use by the Federal Government.

(7) HIGH-PERFORMANCE GREEN BUILDING.—The term ''high-performance green building'' means a building that, during its life-cycle, as compared with similar buildings (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency)—

(A) reduces energy, water, and material resource use;

(B) improves indoor environmental quality, including reducing indoor pollution, improving thermal comfort, and improving lighting and acoustic environments that affect occupant health and productivity;

(C) reduces negative impacts on the environment throughout the life-cycle of the build-

ing, including air and water pollution and waste generation;

(D) increases the use of environmentally preferable products, including biobased, recycled content, and nontoxic products with lower life-cycle impacts;

(E) increases reuse and recycling opportunities;

(F) integrates systems in the building;

(G) reduces the environmental and energy impacts of transportation through building location and site design that support a full range of transportation choices for users of the building; and

(H) considers indoor and outdoor effects of the building on human health and the environment, including—

(i) improvements in worker productivity;

(ii) the life-cycle impacts of building materials and operations; and

(iii) other factors that the Federal Director or the Commercial Director consider to be appropriate.

(8) LIFE-CYCLE.—The term ''life-cycle'', with respect to a high-performance green building, means all stages of the useful life of the building (including components, equipment, systems, and controls of the building) beginning at conception of a high-performance green building project and continuing through site selection, design, construction, landscaping, commissioning, operation, maintenance, renovation, deconstruction or demolition, removal, and recycling of the high-performance green building.

(9) LIFE-CYCLE ASSESSMENT.—The term ''life-cycle assessment'' means a comprehensive system approach for measuring the environmental performance of a product or service over the life of the product or service, beginning at raw materials acquisition and continuing through manufacturing, transportation, installation, use, reuse, and end-of-life waste management.

(10) LIFE-CYCLE COSTING.—The term ''life-cycle costing'', with respect to a high-performance green building, means a technique of economic evaluation that—

(A) sums, over a given study period, the costs of initial investment (less resale value), replacements, operations (including energy use),

and maintenance and repair of an investment decision; and

(B) is expressed—

(i) in present value terms, in the case of a study period equivalent to the longest useful life of the building, determined by taking into consideration the typical life of such a building in the area in which the building is to be located; or

(ii) in annual value terms, in the case of any other study period.

(11) OFFICE OF COMMERCIAL HIGH-PERFORMANCE GREEN BUILDINGS.—The term ''Office of Commercial High-Performance Green Buildings'' refers to the office established under section 9043(a).

(12) OFFICE OF FEDERAL HIGH-PERFORMANCE GREEN BUILDINGS.—The term ''Office of Federal High-Performance Green Buildings'' refers to the Office established undersection 9042(a).

(13) PRACTICES.—The term ''practices'' means design, financing, permitting, construction, commissioning, operation and maintenance, and other practices that contribute to achieving zero-net-energy buildings or facilities.

(14) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(15) ZERO-NET-ENERGY COMMERCIAL BUILDING.—The term ''zero-net-energy commercial building'' means a commercial building that is designed, constructed, and operated to—

(A) require a greatly reduced quantity of energy to operate;

(B) meet the balance of energy needs from sources of energy that do not produce greenhouse gases;

(C) therefore result in no net emissions of greenhouse gases; and

(D) be economically viable.

SEC. 9042. HIGH-PERFORMANCE GREEN FEDERAL BUILDINGS.

(a) ESTABLISHMENT OF OFFICE.—Not later than 60 days after the date of enactment of this Act, the Administrator shall establish within the General Services Administration an Office of Federal High-Performance Green Buildings, and appoint an individual to serve as Federal Director in, a position in the career-reserved Senior Executive service, to—

(1) establish and manage the Office of Commercial High-Performance Green Buildings; and

(2) carry out other duties as required under this part.

(b) COMPENSATION.—The compensation of the Federal Director shall not exceed the maximum rate of basic pay for the Senior Executive Service under section 5382 of title 5, United States Code, including any applicable locality-based comparability payment that may be authorized under section 5304(h)(2)(C) of that title.

(c) DUTIES.—The Federal Director shall—

(1) coordinate the activities of the Office of Federal High-Performance Green Buildings with the activities of the Office of Commercial High-Performance Green Buildings;

(2) ensure full coordination of high-performance green building information and activities within the General Services Administration and all relevant agencies, including, at a minimum—

(A) the Environmental Protection Agency;

(B) the Office of the Federal Environmental Executive;

(C) the Office of Federal Procurement Policy;

(D) the Department of Energy;

(E) the Department of Health and Human Services; and

(F) the Department of Defense;

(3) establish a senior-level Federal Green Building Advisory Committee, which shall provide advice and recommendations in accordance with subsection (d);

(4) identify and biennially reassess improved or higher rating standards recommended by the Advisory Committee;

(5) ensure full coordination of research and development information relating to Federal high-performance green building initiatives;

(6) identify and develop Federal high-performance green building standards that could be used for all types of Federal facilities;

(7) establish green practices that can be used throughout the life of a Federal facility; and

(8) review and analyze current Federal budget practices and life-cycle costing issues, and make recommendations to Congress, in accordance with subsection (d).

(d) ADDITIONAL DUTIES.—The Federal Director, in coordination with the Commercial Director and the Advisory Committee, shall—

(1) identify, review, and analyze current budget and contracting practices that affect achievement of

high-performance green buildings, including the identification of barriers to high-performance green building life-cycle costing and budgetary issues;

(2) develop guidance and conduct training sessions with budget specialists and contracting personnel from Federal agencies and budget examiners to apply life-cycle cost criteria to actual projects;

(3) identify tools to aid life-cycle cost decision-making; and

(4) explore the feasibility of incorporating the benefits of high-performance green buildings, such as security benefits, into a cost-budget analysis to aid in life-cycle costing for budget and decision-making processes.

(e) INCENTIVES.—As soon as practicable after the date of enactment of this Act, the Federal Director shall identify incentives to encourage the use of high-performance green buildings and related technology in the operations of the Federal Government, including through—

(1) the provision of recognition awards; and

(2) the maximum feasible retention of financial savings in the annual budgets of Federal agencies for use in reinvesting in future high-performance green building initiatives.

(f) REPORT.—Not later than 2 years after the date of enactment of this Act, and biennially thereafter, the Federal Director shall submit to Congress a report that—

(1) describes the status of the Federal high-performance green building initiatives in effect as of the date of the report, including—

(A) the extent to which the programs are being carried out in accordance with this part; and

(B) the status of funding requests and appropriations for those programs;

(2) identifies within the planning, budgeting, and construction process all types of Federal facility procedures that inhibit new and existing Federal facilities from becoming high-performance green buildings;

(3) identifies inconsistencies, as reported to the Advisory Committee, in Federal law with respect to product acquisition guidelines and high-performance product guidelines;

(4) recommends language for uniform standards for use by Federal agencies in environmentally responsible acquisition;

(5) in coordination with the Office of Management and Budget, reviews the budget process for capital programs with respect to alternatives for—

(A) restructuring of budgets to require the use of complete energy and environmental cost accounting;

(B) using operations expenditures in budget-related decisions while simultaneously incorporating productivity and health measures (as those measures can be quantified by the Office of Federal High-Performance Green Buildings, with the assistance of universities and national laboratories);

(C) permitting Federal agencies to retain all identified savings accrued as a result of the use of life-cycle costing for future high-performance green building initiatives; and

(D) identifying short-term and long-term cost savings that accrue from high-performance green buildings, including those relating to health and productivity;

(6) identifies green, self-sustaining technologies to address the operational needs of Federal facilities in times of national security emergencies, natural disasters, or other dire emergencies;

(7) summarizes and highlights development, at the State and local level, of high-performance green building initiatives, including executive orders, policies, or laws adopted promoting high-performance green building (including the status of implementation of those initiatives); and

(8) includes, for the 2-year period covered by the report, recommendations to address each of the matters, and a plan for implementation of each recommendation, described in paragraphs (1) through (7).

(g) IMPLEMENTATION.—The Office of Federal High-Performance Green Buildings shall carry out each plan for implementation of recommendations under subsection (f)(8).

SEC. 9043. COMMERCIAL HIGH-PERFORMANCE GREEN BUILDINGS.

(a) ESTABLISHMENT OF OFFICE.—Not later than 60 days after the date of enactment of this Act, the Secretary shall establish within the Department of Energy, Office of Energy Efficiency and Renewable Energy, an Office of Commercial High-Performance Green Buildings, and appoint an individual to serve as Commercial Director in, a position in the career-reserved Senior Executive service, to—

(1) establish and manage the Office of Commercial High-Performance Green Buildings; and

(2) carry out other duties as required under this part.

(b) COMPENSATION.—The compensation of the Commercial Director shall not exceed the maximum rate of basic pay for the Senior Executive Service under section 5382 of title 5, United States Code, including any applicable locality-based comparability payment that may be authorized under section 5304(h)(2)(C) of that title.

(c) DUTIES.—The Commercial Director shall, with respect to development of high-performance green buildings and zero-energy commercial buildings nationwide—

(1) coordinate the activities of the Office of Commercial High-Performance Green Buildings with the activities of the Office of Federal High-Performance Green Buildings;

(2) develop the legal predicates and agreements for, negotiate, and establish one or more public-private partnerships with the Consortium, members of the Consortium, and other capable parties meeting the qualifications of the Consortium, to further such development;

(3) represent the public and the Department of Energy in negotiating and performing in accord with such public-private partnerships;

(4) use appropriated funds in an effective manner to encourage the maximum investment of private funds to achieve such development; and

(5) establish a national high-performance green building clearinghouse in accordance withsection 9045(1), which shall provide high-performance green building information through—

(A) outreach;

(B) education; and

(C) the provision of technical assistance.

(d) REPORTING.—The Commercial Director shall report directly to the Assistant Secretary for Energy Efficiency and Renewable Energy, or to other senior officials in a way that facilitates the integrated program of this part for both energy efficiency and renewable energy and both technology development and technology deployment.

(e) COORDINATION.—The Commercial Director shall ensure full coordination of high-performance green building information and activities, including activities under this part, within the Federal Government by working with the General Services Administration and all relevant agencies, including, at a minimum—

(1) the Environmental Protection Agency;

(2) the Office of the Federal Environmental Executive;

(3) the Office of Federal Procurement Policy;

(4) the Department of Energy, particularly the Federal Energy Management Program;

(5) the Department of Health and Human Services;

(6) the Department of Housing and Urban Development;

(7) the Department of Defense; and

(8) such nonprofit high-performance green building rating and analysis entities as the Commercial Director determines can offer support, expertise, and review services.

(f) HIGH-PERFORMANCE GREEN BUILDING PARTNERSHIP CONSORTIUM.—

(1) RECOGNITION.—Not later than 90 days after the date of enactment of this Act, the Commercial Director shall formally recognize one or more groups that qualify as a high-performance green building partnership consortium.

(2) REPRESENTATION TO QUALIFY.—To qualify under this section, any consortium shall include representation from—

(A) the design professions, including national associations of architects and of professional engineers;

(B) the development, construction, financial, and real estate industries;

(C) building owners and operators from the public and private sectors;

(D) academic and research organizations, including at least one national laboratory with extensive commercial building energy expertise;

(E) building code agencies and organizations, including a model energy code-setting organization;

(F) independent high-performance green building associations or councils;

(G) experts in indoor air quality and environmental factors;

(H) experts in intelligent buildings and integrated building information systems;

(I) utility energy efficiency programs; and

(J) nongovernmental energy efficiency organizations.

(3) FUNDING.—The Secretary may make payments to the Consortium pursuant to the terms of a public-private partnership for such activities of the

Consortium undertaken under such a partnership as described in this part directly to the Consortium or through one or more of its members.

(g) REPORT.—Not later than 2 years after the date of enactment of this Act, and biennially thereafter, the Commercial Director, in consultation with the Consortium, shall submit to Congress a report that—

(1) describes the status of the high-performance green building initiatives under this part and other Federal programs affecting commercial high-performance green buildings in effect as of the date of the report, including—

(A) the extent to which the programs are being carried out in accordance with this part; and

(B) the status of funding requests and appropriations for those programs; and

(2) summarizes and highlights development, at the State and local level, of high-performance green building initiatives, including executive orders, policies, or laws adopted promoting high-performance green building (including the status of implementation of those initiatives).

SEC. 9044. ZERO-ENERGY COMMERCIAL BUILDINGS INITIATIVE.

(a) GOAL.—The Commercial Director, in partnership with the Consortium, shall periodically study and refine a national goal to reduce commercial building energy use and achieve zero-net-energy commercial buildings. Unless the Commercial Director concludes that such targets are unachievable or unrealistic, the goal shall include objectives that—

(1) all new commercial buildings constructed after the beginning of 2025 are zero-net-energy commercial buildings;

(2) by 2035, 50 percent of the then existing stock of commercial buildings that were constructed before 2025 are zero-net-energy commercial buildings; and

(3) by 2050, all commercial buildings are zero-net-energy commercial buildings.

(b) STRATEGY.—The Commercial Director, in partnership with the Consortium, shall develop a market transformation strategy intended to achieve the adopted goal by significantly accelerating the development and widespread deployment of energy efficiency technologies, practices, and policies in both new and existing commercial buildings, and by leveraging State, utility, and private sector commercial building energy efficiency programs.

(c) INITIATIVE.—The Commercial Director, in partnership with the Consortium, shall implement an initiative to carry out the strategy that may include—

(1) support for industry efforts to develop advanced materials, equipment, controls, practices, and integrated building systems aimed at achieving zero-net-energy commercial buildings and monitoring and benchmarking commercial building energy use;

(2) training, education, and awareness programs, including—

(A) programs in cooperation with industry and professional associations and educational institutions to provide education on achieving sustainable and energy-efficient performance through proper system and structure design, construction, and operation to—

(i) architects;

(ii) mechanical, electrical, and plumbing engineers;

(iii) contractors; and

(iv) construction managers and facility managers;

(B) programs to incorporate energy efficiency and sustainability elements into architecture, engineering, and vocational training and

certification curricula, including professional certification and continuing education programs; and

(C) regional and national public education campaigns to educate real estate, finance, and other commercial buildings professionals and the general public about the opportunities for energy and cost savings and associated environmental and health benefits associated with high-performance green buildings;

(3) pilot projects to demonstrate and document the performance of scalable and replicable technologies, practices, and policies to achieve high-performance green buildings and zero-net-energy commercial buildings, including—

(A) pilot projects representing each market segment or building type in each climate region that include current best practice in integrated design, technology and systems, construction, commissioning, operation, and building information management;

(B) pilot projects, in cooperation with State and local governments, in public buildings; and

(C) pilot projects, in cooperation with public school districts and colleges and universities, to—

(i) demonstrate such technologies and practices in new and existing facilities;

(ii) involve students and faculty members in integrating energy efficiency and high-performance green building concepts and measures within the educational curriculum; and

(iii) use education facilities as showcases to communicate these concepts to the community;

(4) technical assistance and funding of pilot projects for the development and use of new building energy design standards, model designs, model energy codes, and incentives and other policies, to be provided to designers, builders, developers, commercial building owners, and utility and government energy efficiency programs, including—

(A) support for code and standards organizations to develop aggressive model energy codes, beyond-code guidelines, and code compliance programs for new and existing buildings;

(B) assistance to utilities, builders, and State and local officials in developing, implementing, and evaluating pilot programs to achieve building design and actual energy performance that meet and exceed performance levels in the model energy codes; and

(C) support for development and dissemination of model programs and policies that provide incentives for high-performance green buildings, such as accelerated zoning and construction permitting and inspections, density bonuses, and State and local tax incentives;

(5) technical assistance and funding of pilot projects for innovative market-based initiatives to advance energy-efficient technologies and practices in new and existing commercial buildings, provided to State agencies, utilities, and other entities, including—

(A) design assistance and incentives for incorporating sustainability and energy efficiency beginning with the first stages of building design and continuing through start-up commissioning and long-term operation;

(B) performance-based design and construction fees for high-performance green construction and renovation;

(C) equipment leasing and financing strategies for energy efficiency upgrades of new and replacement commercial building equipment;

(D) trade-in programs for early retirement of low-efficiency commercial building equipment and system components, such as motors, air conditioners, boilers, lighting, and windows;

(E) improved methods of energy performance contracting to reduce transaction costs and encourage the use of third-party funding and expertise for energy-efficient retrofitting of existing commercial buildings;

(F) improved model protocols for commercial building energy audits, energy performance measurement and verification, continuous commissioning, and ongoing performance monitoring and diagnostics; and

(G) strategies to reduce barriers to energy efficiency investment by addressing split incentives between commercial building owners and tenants;

(6) development, dissemination, technical assistance, and pilot project activities to improve the practice of monitoring, benchmarking, and disclosure of actual commercial building energy performance and operating costs, including—

(A) improved methods of measuring and compiling energy performance data on a statistically significant share of commercial new construction, renovation, and energy retrofit projects;

(B) development and dissemination of energy performance metrics for the commercial building stock and for important subcategories of commercial buildings;

(C) improved methods of providing energy performance feedback to commercial building owners, operators, and occupants, including real-time feedback and comparisons to performance goals, past performance, and similar buildings;

(D) voluntary programs at the national, regional, and sectoral levels to recognize and reward commercial buildings with exceptional performance or performance improvement;

(E) increased availability and use of tools for post occupancy assessment of energy efficiency and occupant satisfaction with commercial high-performance green buildings, and for measuring and documenting non-energy financial and other benefits of such buildings;

(7) in cooperation with the Energy Information Administration and with utility, State, and private sector organizations, development and application of improved methods for assessing trends in the energy performance of the commercial buildings stock, new construction, and building renovations, by building type and region, in order to track progress toward the goals adopted under subsection (a); and

(8) such otherwise authorized activities that the Secretary and the Commercial Director determine are necessary to the success of the initiative.

SEC. 9045. PUBLIC OUTREACH.

The Commercial Director, in coordination with the Consortium, shall carry out public outreach to inform individuals and entities of the information and services available Governmentwide by—

(1) establishing and maintaining a national high-performance green building clearinghouse, including on the internet, that—

(A) identifies existing similar efforts and coordinates activities of common interest; and

(B) provides information relating to high-performance green buildings, including hyperlinks to internet sites that describe the activities, information, and resources of—

(i) the Federal Government;

(ii) State and local governments;

(iii) the private sector (including non-governmental and nonprofit entities and organizations); and

(iv) international organizations;

(2) identifying and recommending educational resources for implementing high-performance green building practices, including security and emergency benefits and practices;

(3) providing access to technical assistance on using tools and resources to make more cost-effective, energy-efficient, health-protective, and environmentally beneficial decisions for constructing high-performance green buildings, particularly tools available to conduct life-cycle costing and life-cycle assessment;

(4) providing information on application processes for certifying a high-performance green building, including certification and commissioning;

(5) providing technical information, market research, or other forms of assistance or advice that would be useful in planning and constructing high-performance green buildings;

(6) using such other methods as are determined by the Commercial Director to be appropriate;

(7) surveying existing research and studies relating to high-performance green buildings;

(8) coordinating activities of common interest;

(9) developing and recommending a high-performance green building practices that—

(A) identify information and research needs, including the relationships between health, occupant productivity, and each of—

(i) pollutant emissions from materials and products in the building;

(ii) natural day lighting;

(iii) ventilation choices and technologies;

(iv) heating, cooling, and system control choices and technologies;

(v) moisture control and mold;

(vi) maintenance, cleaning, and pest control activities;

(vii) acoustics; and

(viii) other issues relating to the health, comfort, productivity, and performance of occupants of the building; and

(B) promote the development and dissemination of high-performance green building measurement tools that, at a minimum, may be used—

(i) to monitor and assess the life-cycle performance of facilities (including demonstration projects) built as high-performance green buildings; and

(ii) to perform life-cycle assessments;

(10) studying and identifying potential benefits of high-performance green buildings relating to security, natural disaster, and emergency needs of the Federal Government; and

(11) supporting other research initiatives determined by the Office of Commercial High-Performance Green Buildings.

SEC. 9046. FEDERAL PROCUREMENT.

(a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Director of the Office

of Federal Procurement Policy, in consultation with the Federal Director, the Commercial Director, and the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall promulgate revisions of the applicable acquisition regulations, to take effect as of the date of promulgation of the revisions—

(1) to direct any Federal procurement executives involved in the acquisition, construction, or major renovation (including contracting for the construction or major renovation) of any facility—

(A) to employ integrated design principles;

(B) to improve site selection for environmental and community benefits;

(C) to optimize building and systems energy performance;

(D) to protect and conserve water;

(E) to enhance indoor environmental quality; and

(F) to reduce environmental impacts of materials and waste flows; and

(2) to direct Federal procurement executives involved in leasing buildings, to give preference to the lease of facilities that—

(A) are energy-efficient; and

(B) to the maximum extent practicable, have applied contemporary high-performance and sustainable design principles during construction or renovation.

(b) GUIDANCE.—Not later than 90 days after the date of promulgation of the revised regulations under subsection (a), the Director of the Office of Procurement Policy shall issue guidance to all Federal procurement executives providing direction and instructions to renegotiate the design of proposed facilities, renovations for existing facilities, and leased facilities to incorporate improvements that are consistent with this section.

SEC. 9047. MANAGEMENT OF ENERGY AND WATER EFFICIENCY IN FEDERAL BUILDINGS.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is amended by adding at the end the following:

"(f) USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.—

"(1) FACILITY ENERGY MANAGERS.—

"(A) IN GENERAL.—Each Federal agency shall designate a manager responsible for implementing this subsection and reducing energy use at each building or facility that meets criteria under subparagraph (B).

"(B) COVERED FACILITIES.—The Secretary shall develop criteria, after consultation with affected agencies, energy efficiency advocates, and energy and utility service providers, that cover, at a minimum, each Federal building or facility with greater than 40,000 square feet of space or greater than $75,000 per year in energy costs, including central utility plants and distribution systems and other energy intensive operations, and that constitute in the aggregate at least two-thirds of total Federal building and facility energy use.

"(2) ENERGY AND WATER EVALUATIONS AND COMMISSIONING.—

"(A) EVALUATIONS.—Not later than 18 months after the date of enactment of this subsection, and every 5 years thereafter, each energy manager shall complete a comprehensive energy and water evaluation for each building or facility that meets criteria under paragraph (1)(B).

"(B) RECOMMISSIONING AND RETROCOMMISSIONING.—As part of the evaluation under subparagraph (A) or on the same schedule the energy manager shall recommis-

sion or retrocommission each such building and facility as applicable.

"(3) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—

"(A) IN GENERAL.—Not later than 2 years after the completion of each evaluation under paragraph (1), each energy manager—

"(i) shall fully implement each energy and water-saving measure identified in the evaluation conducted under paragraph (2) that is life-cycle cost-effective and has a 12-year or shorter simple payback period;

"(ii) may implement any energy or water-saving measure that the Federal agency identified in the evaluation conducted under paragraph (1) that is life-cycle cost-effective and has longer than a 12-year simple payback period; and

"(iii) may bundle individual measures of varying paybacks together into combined projects.

"(B) PAYBACK PERIOD.—For the purpose of subparagraph (A), the simple payback period of a measure shall be obtained by dividing—

"(i) the estimated initial implementation cost of the measure (other than financing costs); by

"(ii) the annual cost savings from the measure.

"(C) COST SAVINGS.—For the purpose of subparagraph (B), cost savings shall include net savings in estimated—

"(i) energy and water costs; and

"(ii) operations, maintenance, repair, replacement, and other direct costs.

"(D) EXCEPTIONS.—The Secretary may modify or make exceptions to the calculation of a 12-year simple payback under this paragraph in the guidelines issued by the Secretary under paragraph (5), if necessary and appropriate to achieve the purposes of this Act.

"(E) LIFE-CYCLE COST-EFFECTIVE.—For the purpose of subparagraph (A), determination of whether a measure is life-cycle cost-effective shall use methods and procedures developed pursuant to section 544.

"(4) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under paragraph (3), each energy manager shall ensure that—

"(A) equipment, including building and equipment controls, is fully commissioned at acceptance to be operating at design specifications;

"(B) a plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed;

"(C) equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair; and

"(D) energy and water savings are measured and verified.

"(5) GUIDELINES.—

"(A) IN GENERAL.—The Secretary shall issue guidelines and necessary criteria that each Federal agency shall follow for implementation of—

"(i) paragraphs (1) and (2) not later than 180 days after the date of enactment of this subsection; and

"(ii) paragraphs (3) and (4) not later than 1 year after the date of enactment of this subsection.

"(B) RELATIONSHIP TO FUNDING SOURCE.—The guidelines issued by the Sec-

retary under subparagraph (A) shall be appropriate and uniform for measures funded with each type of funding made available under paragraph (9), but may distinguish between different types of measures project size, and other criteria the Secretary determines are relevant.

"(6) WEB-BASED CERTIFICATION.—

"(A) IN GENERAL.—For each building or facility that meets the criteria established by the Secretary under paragraph (1), the energy manager shall use the web-based tracking system under subparagraph (B) to certify compliance with the requirements for—

"(i) energy and water evaluations and recommissioning and retrocommissioning under paragraph (2);

"(ii) implementation of identified energy and water measures under paragraph (3); and

"(iii) follow-up on implemented measures under paragraph (4).

"(B) DEPLOYMENT.—

"(i) IN GENERAL.—Not later than 1 year after the date of enactment of this subsection, the Secretary shall develop and

deploy the web-based tracking system required under this paragraph in a manner that tracks, at a minimum—

"(I) the covered buildings and facilities;

"(II) the status of meeting the requirements specified in subparagraph (A);

"(III) the estimated cost and savings for measures required to be implemented in a building or facility; and

"(IV) the measured savings and persistence of savings for implemented measures.

"(ii) EASE OF COMPLIANCE.—The Secretary shall ensure that energy manager compliance with the requirements in this paragraph, to the greatest extent practicable, can be accomplished with the use of streamlined procedures, and templates that minimize the time demands on Federal employees.

"(C) AVAILABILITY.—

"(i) IN GENERAL.—Subject to clause (ii), the Secretary shall make the web-based tracking system required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

"(ii) EXEMPTIONS.—At the request of a Federal agency, the Secretary may exempt specific data for specific buildings from disclosure under clause (i) for national security purposes.

"(7) BENCHMARKING OF FEDERAL FACILITIES.—

"(A) IN GENERAL.—The energy manager shall enter energy use data for each building or facility that meets the criteria established by the Secretary under paragraph (1) into a building energy use benchmarking system, such as the Energy Star Portfolio Manager.

"(B) SYSTEM AND GUIDANCE.—Not later than 1 year after the date of enactment of this subsection, the Secretary shall—

"(i) select or develop the building energy use benchmarking system required

under this paragraph for each type of building; and

"(ii) issue guidance for use of the system.

"(C) PUBLIC DISCLOSURE.—Each Federal agency shall post the benchmarking information generated under this subsection, along with each building's annual energy use per square foot and energy costs, on the agency's website. The agency shall update such information each year, and shall include in such reporting previous years' information to allow changes in building performance to be tracked over time.

"(8) FEDERAL AGENCY SCORECARDS.—

"(A) IN GENERAL.—The Director of the Office of Management and Budget shall issue semiannual scorecards for energy management activities carried out by each Federal agency that includes—

"(i) summaries of the status of implementing the various requirements of the agency and its energy managers under this subsection; and

"(ii) any other means of measuring performance that the Director considers appropriate.

"(B) AVAILABILITY.—The Director shall make the scorecards required under this paragraph available to Congress, other Federal agencies, and the public through the Internet.

"(9) FUNDING AND IMPLEMENTATION.—

"(A) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

"(B) FUNDING OPTIONS.—

"(i) IN GENERAL.—To carry out this subsection, a Federal agency may use any combination of—

"(I) appropriated funds made available under subparagraph (A); and

"(II) private financing, including financing available through energy savings performance contracts or utility energy service contracts.

"(ii) COMBINED FUNDING FOR SAME MEASURE.—A Federal agency may use any

combination of appropriated funds and private financing described in clause (i) to carry out the same measure under this subsection, with proportional allocation for any energy and water savings.

"(iii) LACK OF APPROPRIATED FUNDS.—Since measures may be carried out using private financing described in clause (i), a lack of available appropriations shall not be considered a sufficient reason for the failure of a Federal agency to comply with this subsection.

"(C) IMPLEMENTATION.—Each Federal agency may implement the requirements under this subsection itself or may contract out performance of some or all of the requirements.

"(10) RULE OF CONSTRUCTION.—This subsection shall not be construed either to require or to obviate any contractor savings guarantees.".

SEC. 9048. DEMONSTRATION PROJECT.

(a) IN GENERAL.—The Federal Director and the Commercial Director shall establish guidelines to implement a demonstration project to contribute to the research goals of the Office of Commercial High-Performance

Green Buildings and the Office of Federal High-Performance Green Buildings.

(b) PROJECTS.—In accordance with guidelines established by the Federal Director and the Commercial Director under subsection (a) and the duties of the Federal Director and the Commercial Director described in this part, the Federal Director or the Commercial Director shall carry out—

(1) for each of fiscal years 2009 through 2014, 1 demonstration project in a Federal building selected by the Federal Director in accordance with relevant agencies and described in subsection (c)(1), that—

(A) provides for the evaluation of the information obtained through the conduct of projects and activities under this part; and

(B) achieves the highest rating offered by an existing high-performance green building rating system that is developed through a consensus-based process, provides minimum requirements in all performance categories, requires substantiating documentation and verifiable calculations, employs third-party post-construction review and verification, and is nationally recognized within the building industry;

(2) no fewer than 4 demonstration projects at 4 universities, that, as competitively selected by the Commercial Director in accordance with subsection (c)(2), have—

(A) appropriate research resources and relevant projects to meet the goals of the demonstration project established by the Office of Commercial High-Performance Green Buildings; and

(B) the ability—

(i) to serve as a model for high-performance green building initiatives, including research and education;

(ii) to identify the most effective ways o use high-performance green building and landscape technologies to engage and educate undergraduate and graduate students;

(iii) to effectively implement a high-performance green building education program for students and occupants;

(iv) to demonstrate the effectiveness of various high-performance technologies in each of the 4 climatic regions of the United States described in subsection (c)(2)(B); and

(v) to explore quantifiable and non-quantifiable beneficial impacts on public health and employee and student performance;

(3) demonstration projects to evaluate replicable approaches to achieving various types of commercial buildings in various climates; and

(4) deployment activities to disseminate information on and encourage widespread adoption of technologies, practices, and policies to achieve zero-net-energy commercial buildings or low energy use and effective monitoring of energy use in commercial buildings.

(c) CRITERIA.—

(1) FEDERAL FACILITIES.—With respect to the existing or proposed Federal facility at which a demonstration project under this section is conducted, the Federal facility shall—

(A) be an appropriate model for a project relating to—

(i) the effectiveness of high-performance technologies;

(ii) analysis of materials, components, systems, and emergency operations in the building, and the impact of those mate-

rials, components, and systems, including the impact on the health of building occupants;

(iii) life-cycle costing and life-cycle assessment of building materials and systems; and

(iv) location and design that promote access to the Federal facility through walking, biking, and mass transit; and

(B) possess sufficient technological and organizational adaptability.

(2) UNIVERSITIES.—With respect to the 4 universities at which a demonstration project under this section is conducted—

(A) the universities should be selected, after careful review of all applications received containing the required information, as determined by the Commercial Director, based on—

(i) successful and established public-private research and development partnerships;

(ii) demonstrated capabilities to construct or renovate buildings that meet high indoor environmental quality standards;

(iii) organizational flexibility;

(iv) technological adaptability;

(v) the demonstrated capacity of at least 1 university to replicate lessons learned among nearby or sister universities, preferably by participation in groups or consortia that promote sustainability;

(vi) the demonstrated capacity of at least 1 university to have officially-adopted, institution-wide ''high-performance green building'' guidelines for all campus building projects; and

(vii) the demonstrated capacity of at least 1 university to have been recognized by similar institutions as a national leader in sustainability education and curriculum for students of the university; and

(B) each university shall be located in a different climatic region of the United States, each of which regions shall have, as determined by the Office of Commercial High-Performance Green Buildings—

(i) a hot, dry climate;

(ii) a hot, humid climate;

(iii) a cold climate; or

(iv) a temperate climate (including a climate with cold winters and humid summers).

(d) REPORT.—Not later than 1 year after the date of enactment of this Act, and annually thereafter through September 30, 2014—

(1) the Federal Director and the Commercial Director shall submit to the Secretary a report that describes the status of the demonstration projects; and

(2) each University at which a demonstration project under this section is conducted shall submit to the Secretary a report that describes the status of the demonstration projects under this section.

SEC. 9049. ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.

(a) IN GENERAL.—

(1) Not later than 90 days after the date of enactment of this Act, the Secretary of Energy and Administrator of the Environmental Protection Agency shall jointly, after consulting with information technology industry and other interested parties, initiate a voluntary national information program for those types of data centers and data center equipment and facilities that are widely used and for

which there is a potential for significant data center energy savings as a result of such program.

(2) Such program shall—

(A) consistent with the objectives of paragraph (1), determine the type of data center and data center equipment and facilities to be covered under such program; and

(B) include specifications, measurements, and benchmarks that will enable data center operators to make more informed decisions about the energy efficiency and costs of data centers, and that—

(i) reflect the total energy consumption of data centers, including both equipment and facilities, taking into account—

(I) the performance and utilization of servers, data storage devices, and other information technology equipment;

(II) the efficiency of heating, ventilation, and air conditioning, cooling, and power conditioning systems;

(III) energy savings from the adoption of software and data management techniques; and

(IV) other factors determined by the organization described in subsection (b);

(ii) allow for creation of separate specifications, measurements, and benchmarks based on data center size and function, as well as other appropriate characteristics determined by the organization described in subsection (b);

(iii) advance the design and implementation of efficiency technologies to the maximum extent economically practical; and

(iv) provide to data center operators in the private sector and the Federal Government information about best practices and purchasing decisions that reduce the energy consumption of data centers;

(C) publish the information described in subparagraph (B), which may be disseminated through catalogs, trade publications, the Internet, or other mechanisms, that will allow data center operators to assess the energy consumption and potential cost savings of alternative

data centers and data center equipment and facilities; and

(D) not later than 1 year after the date of enactment of this Act, and thereafter on an ongoing basis, transmit the information described in subparagraph (B) to the Secretary and the Administrator.

(3) Such program shall be developed and coordinated by the data center efficiency organization described in subsection (b) according to commonly accepted procedures for the development of specifications, measurements, and benchmarks.

(b) DATA CENTER EFFICIENCY ORGANIZATION.—Upon creation of the program under subsection (a), the Secretary and the Administrator shall jointly designate an information technology industry organization to coordinate the program. Such organization, whether preexisting or formed specifically for the purposes of subsection (a), shall—

(1) consist of interested parties that have expertise in energy efficiency and in the development, operation, and functionality of computer data centers, information technology equipment, and software, as well as representatives of hardware manufacturers, data center operators, and facility managers;

(2) obtain and address input from Department of Energy National Laboratories or any college, university, research institution, industry association, company, or public interest group with applicable expertise in any of the areas listed in paragraph (1) of this subsection;

(3) follow commonly accepted procedures for the development of specifications and accredited standards development processes;

(4) have a mission to develop and promote energy efficiency for data centers and information technology; and

(5) have the primary responsibility to oversee the development and publishing of the information, measurements, and benchmarks described in subsection (a) and transmission of such information to the Secretary and the Administrator for their adoption under subsection (c).

(c) ADOPTION OF SPECIFICATIONS.—The Secretary and the Administrator shall jointly, in accordance with the requirements of section 12(d) of the National Technology Transfer Advancement Act of 1995, adopt and publish the specifications, measurements, and benchmarks described in subsection (a) for use by the Federal Energy Management Program and the Energy Star program as energy

efficiency requirements for the purposes of those programs.

(d) MONITORING.—The Secretary and the Administrator shall jointly monitor and evaluate the efforts to develop the program described in subsection (a) and, not later than 3 years after the date of enactment of this Act, shall make a determination as to whether such program is consistent with the objectives of subsection (a).

(e) ALTERNATIVE SYSTEM.—If the Secretary and the Administrator make a determination under subsection (d) that a voluntary national information program for data centers consistent with the objectives of subsection (a) has not been developed, the Secretary and the Administrator shall jointly, after consultation with the National Institute of Standards and Technology, develop, not later than 2 years after such determination, and implement the program under subsection (a).

(f) PROTECTION OF PROPRIETARY INFORMATION.—The Secretary, the Administrator, or the data center efficiency organization shall not disclose any proprietary information or trade secrets provided by any individual or company for the purposes of carrying out this program.

(g) DEFINITIONS.—For purposes of this section:

(1) The term ''data center'' means any facility that primarily contains electronic equipment used to

process, store, and transmit digital information, which may be—

(A) a free-standing structure; or

(B) a facility within a larger structure, that utilizes environmental control equipment to maintain the proper conditions for the operation of electronic equipment.

(2) The term ''data center operator'' means any person or government entity that builds or operates a data center or purchases data center services, equipment, and facilities.

SEC. 9050. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—In addition to amounts authorized under subsections (b), (c), and (d), there are authorized to be appropriated to carry out this part, other than section 9052—

(1) $10,000,000 for fiscal year 2008; and

(2) $20,000,000 for each of the fiscal years 2009 through 2014, to remain available until expended.

(b) ZERO-ENERGY COMMERCIAL BUILDINGS INITIATIVE.—There are authorized to be appropriated to carry out the initiative described in section 9044—

(1) $20,000,000 for fiscal year 2008;

(2) $50,000,000 for each of fiscal years 2009 and 2010;

(3) $100,000,000 for each of fiscal years 2011 and 2012;

(4) $200,000,000 for each of fiscal years 2013 through 2050.

(c) DEMONSTRATION PROJECTS.—

(1) FEDERAL DEMONSTRATION PROJECT.—There are authorized to be appropriated to carry out the Federal demonstration project described in section 9048(b)(1) $10,000,000 for the period of fiscal years 2009 through 2014, to remain available until expended.

(2) UNIVERSITY DEMONSTRATION PROJECTS.—There are authorized to be appropriated to carry out the university demonstration projects described in section 9048(b)(2) $10,000,000 for the period of fiscal years 2009 through 2014, to remain available until expended.

(d) ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.—There are authorized to be appropriated to each of the Secretary and the Administrator for carrying out section 9049 $250,000 for each of the fiscal years 2008 through 2012.

SEC. 9051. STUDY AND REPORT ON USE OF POWER MANAGEMENT SOFTWARE.

(a) STUDY.—The Secretary of Energy, through the Federal Energy Management Program, shall conduct a study on the use of power management software by the Department of Energy and Federal facilities to reduce the use of electricity in computer monitors and personal computers.

(b) REPORT.—Not later than 60 days after the date of enactment of the Act, the Secretary shall submit to Congress a report containing the results of the study under subsection (a), including a description of the recommendations developed under the study. The Secretary and the Federal Energy Management Program are encouraged to draw upon similar studies and efforts by other Federal entities on power management software.

SEC. 9052. HIGH-PERFORMANCE GREEN BUILDINGS RETROFIT LOAN GUARANTEES.

(a) DEFINITIONS.—In this section:

(1) COST.—The term ''cost'' has the meaning given the term ''cost of a loan guarantee'' within the meaning of section 502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

(2) GUARANTEE.—

(A) IN GENERAL.—The term ''guarantee'' has the meaning given the term ''loan guar-

antee'' in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(B) INCLUSION.—The term ''guarantee'' includes a loan guarantee commitment (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)).

(3) OBLIGATION.—The term ''obligation'' means the loan or other debt obligation that is guaranteed under this section.

(4) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(b) ELIGIBLE PURPOSES.—Except for division C of Public Law 108–423, the Commercial Director shall make loan guarantees under this section for renovation projects that are eligible projects within the meaning of section 1703 of the Energy Policy Act of 2005 and that will result in a building achieving the United States Green Building Council Leadership in Energy and Environmental Design ''certified'' level, or meeting a comparable standard approved by the Commercial Director.

(c) TERMS AND CONDITIONS.—

(1) IN GENERAL.—The Commercial Director shall make guarantees under this section for projects on such terms and conditions as the Commercial Director determines, after consultation with the Sec-

retary of the Treasury, in accordance with this section, including limitations on the amount of any loan guarantee to ensure distribution to a variety of borrowers.

(2) SPECIFIC APPROPRIATION OR CONTRIBUTION.—No guarantee shall be made under this section unless—

(A) an appropriation for the cost has been made; or

(B) the Commercial Director has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury.

(3) LIMITATION.—Not more than $100,000,000 in loans may be guaranteed under this section at any one time.

(4) AMOUNT.—Unless otherwise provided by law, a guarantee by the Commercial Director under this section shall not exceed an amount equal to 80 percent of the project cost that is the subject of the guarantee, as estimated at the time at which the guarantee is issued.

(5) REPAYMENT.—No guarantee shall be made under this section unless the Commercial Director determines that there is reasonable prospect of re-

payment of the principal and interest on the obligation by the borrower.

(6) INTEREST RATE.—An obligation shall bear interest at a rate that does not exceed a level that the Commercial Director determines appropriate, taking into account the prevailing rate of interest in the private sector for similar loans and risks.

(7) TERM.—The term of an obligation shall require full repayment over a period not to exceed the lesser of—

(A) 30 years; or

(B) 90 percent of the projected useful life of the building whose renovation is to be financed by the obligation (as determined by the Commercial Director).

(8) DEFAULTS.—

(A) PAYMENT BY COMMERCIAL DIRECTOR.—

(i) IN GENERAL.—If a borrower defaults on the obligation (as defined in regulations promulgated by the Commercial Director and specified in the guarantee contract), the holder of the guarantee shall have the right to demand payment of the

unpaid amount from the Commercial Director.

(ii) PAYMENT REQUIRED.—Within such period as may be specified in the guarantee or related agreements, the Commercial Director shall pay to the holder of the guarantee the unpaid interest on, and unpaid principal of the obligation as to which the borrower has defaulted, unless the Commercial Director finds that there was no default by the borrower in the payment of interest or principal or that the default has been remedied.

(iii) FORBEARANCE.—Nothing in this paragraph precludes any forbearance by the holder of the obligation for the benefit of the borrower which may be agreed upon by the parties to the obligation and approved by the Commercial Director.

(B) SUBROGATION.—

(i) IN GENERAL.—If the Commercial Director makes a payment under subparagraph (A), the Commercial Director shall be subrogated to the rights of the recipient of the payment as specified in the guar-

antee or related agreements including, where appropriate, the authority (notwithstanding any other provision of law) to—

(I) complete, maintain, operate, lease, or otherwise dispose of any property acquired pursuant to such guarantee or related agreements; or

(II) permit the borrower, pursuant to an agreement with the Commercial Director, to continue to pursue the purposes of the project if the Commercial Director determines this to be in the public interest.

(ii) SUPERIORITY OF RIGHTS.—The rights of the Commercial Director, with respect to any property acquired pursuant to a guarantee or related agreements, shall be superior to the rights of any other person with respect to the property.

(iii) TERMS AND CONDITIONS.—A guarantee agreement shall include such detailed terms and conditions as the Commercial Director determines appropriate to—

(I) protect the interests of the United States in the case of default; and

(II) have available all the patents and technology necessary for any person selected, including the Commercial Director, to complete and operate the project.

(C) PAYMENT OF PRINCIPAL AND INTEREST BY COMMERCIAL DIRECTOR.—With respect to any obligation guaranteed under this section, the Commercial Director may enter into a contract to pay, and pay, holders of the obligation, for and on behalf of the borrower, from funds appropriated for that purpose, the principal and interest payments which become due and payable on the unpaid balance of the obligation if the Commercial Director finds that—

(i)(I) the borrower is unable to meet the payments and is not in default;

(II) it is in the public interest to permit the borrower to continue to pursue the purposes of the project; and

(III) the probable net benefit to the Federal Government in paying the prin-

cipal and interest will be greater than that which would result in the event of a default;

(ii) the amount of the payment that the Commercial Director is authorized to pay shall be no greater than the amount of principal and interest that the borrower is obligated to pay under the agreement being guaranteed; and

(iii) the borrower agrees to reimburse the Commercial Director for the payment (including interest) on terms and conditions that are satisfactory to the Commercial Director.

(D) ACTION BY ATTORNEY GENERAL.—

(i) NOTIFICATION.—If the borrower defaults on an obligation, the Commercial Director shall notify the Attorney General of the default.

(ii) RECOVERY.—On notification, the Attorney General shall take such action as is appropriate to recover the unpaid principal and interest due from—

(I) such assets of the defaulting borrower as are associated with the obligation; or

(II) any other security pledged to secure the obligation.

(9) FEES.—

(A) IN GENERAL.—The Commercial Director shall charge and collect fees for guarantees in amounts the Commercial Director determines are sufficient to cover applicable administrative expenses.

(B) AVAILABILITY.—Fees collected under this paragraph shall—

(i) be deposited by the Commercial Director into the Treasury; and

(ii) remain available until expended, subject to such other conditions as are contained in annual appropriations Acts.

(10) RECORDS; AUDITS.—

(A) IN GENERAL.—A recipient of a guarantee shall keep such records and other pertinent documents as the Commercial Director shall prescribe by regulation, including such records as the Commercial Director may require to facilitate an effective audit.

(B) ACCESS.—The Commercial Director and the Comptroller General of the United States, or their duly authorized representatives, shall have access, for the purpose of audit, to the records and other pertinent documents.

(11) FULL FAITH AND CREDIT.—The full faith and credit of the United States is pledged to the payment of all guarantees issued under this section with respect to principal and interest.

SEC. 9053. GEOTHERMAL HEAT PUMP TECHNOLOGY ACCELERATION PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of General Services.

(2) GENERAL SERVICES ADMINISTRATION FACILITY.—

(A) IN GENERAL.—The term ''General Services Administration facility'' means any building, structure, or facility, in whole or in part (including the associated support systems of the building, structure, or facility), that—

(i) is constructed (including facilities constructed for lease), renovated, or purchased, in whole or in part, by the Admin-

istrator for use by the Federal Government; or

(ii) is leased, in whole or in part, by the Administrator for use by the Federal Government—

(I) except as provided in subclause (II), for a term of not less than 5 years; or

(II) for a term of less than 5 years, if the Administrator determines that use of cost-effective technologies and practices would result in the payback of expenses.

(B) INCLUSION.—The term ''General Services Administration facility'' includes any group of buildings, structures, or facilities described in subparagraph (A) (including the associated energy-consuming support systems of the buildings, structures, and facilities).

(C) EXEMPTION.—The Administrator may exempt from the definition of ''General Services Administration facility'' under this paragraph a building, structure, or facility that meets the requirements of section 543(c) of Public Law 95–619 (42 U.S.C. 8253(c)).

(b) ESTABLISHMENT.—

(1) IN GENERAL.—The Administrator shall establish a program to accelerate the use of geothermal heat pumps at General Services Administration facilities.

(2) REQUIREMENTS.—The program established under this subsection shall—

(A) ensure centralized responsibility for the coordination of geothermal heat pump recommendations, practices, and activities of all relevant Federal agencies;

(B) provide technical assistance and operational guidance to applicable tenants to achieve the goal identified in subsection (c)(2)(B)(ii); and

(C) establish methods to track the success of Federal departments and agencies with respect to that goal.

(c) ACCELERATED USE OF GEOTHERMAL HEAT PUMP TECHNOLOGIES.—

(1) REVIEW.—

(A) IN GENERAL.—As part of the program under this section, not later than 90 days after the date of enactment of this Act, the Administrator shall conduct a review of—

(i) current use of geothermal heat pump technologies in General Services Administration facilities; and

(ii) the availability to managers of General Services Administration facilities of geothermal heat pumps.

(B) REQUIREMENTS.—The review under subparagraph (A) shall—

(i) examine the use of geothermal heat pumps by Federal agencies in General Services Administration facilities; and

(ii) as prepared in consultation with the Administrator of the Environmental Protection Agency, identify geothermal heat pump technology standards that could be used for all types of General Services Administration facilities.

(2) REPLACEMENT.—

(A) IN GENERAL.—As part of the program under this section, not later than 180 days after the date of enactment of this Act, the Administrator shall establish, using available appropriations, a geothermal heat pump technology acceleration program to achieve maximum feasible replacement of existing heating

and cooling technologies with geothermal heat pump technologies in each General Services Administration facility.

(B) ACCELERATION PLAN TIMETABLE.—

(i) IN GENERAL.—To implement the program established under subparagraph (A), not later than 1 year after the date of enactment of this Act, the Administrator shall establish a timetable, including milestones for specific activities needed to replace existing heating and cooling technologies with geothermal heat pump technologies, to the maximum extent feasible (including at the maximum rate feasible), at each General Services Administration facility.

(ii) GOAL.—The goal of the timetable under clause (i) shall be to complete, using available appropriations, maximum feasible replacement of existing heating and cooling technologies with geothermal heat pump technologies by not later than the date that is 5 years after the date of enactment of this Act.

(d) GENERAL SERVICES ADMINISTRATION FACILITY GEOTHERMAL HEAT PUMP TECHNOLOGIES AND PRACTICES.—Not later than 180 days after the date of enactment of this Act, and annually thereafter, the Administrator shall—

(1) ensure that a manager responsible for accelerating the use of geothermal heat pump technologies is designated for each General Services Administration facility geothermal heat pump technologies and practices facility; and

(2) submit to Congress a plan, to be implemented to the maximum extent feasible (including at the maximum rate feasible) using available appropriations, by not later than the date that is 5 years after the date of enactment of this Act, that—

(A) includes an estimate of the funds necessary to carry out this section;

(B) describes the status of the implementation of geothermal heat pump technologies and practices at General Services Administration facilities, including—

(i) the extent to which programs, including the program established under subsection (b), are being carried out in accordance with this Act; and

(ii) the status of funding requests and appropriations for those programs;

(C) identifies within the planning, budgeting, and construction processes, all types of General Services Administration facility-related procedures that inhibit new and existing General Services Administration facilities from implementing geothermal heat pump technologies;

(D) recommends language for uniform standards for use by Federal agencies in implementing geothermal heat pump technologies and practices;

(E) in coordination with the Office of Management and Budget, reviews the budget process for capital programs with respect to alternatives for—

(i) permitting Federal agencies to retain all identified savings accrued as a result of the use of geothermal heat pump technologies; and

(ii) identifying short- and long-term cost savings that accrue from the use of geothermal heat pump technologies and practices;

(F) achieves substantial operational cost savings through the application of geothermal heat pump technologies; and

(G) includes recommendations to address each of the matters, and a plan for implementation of each recommendation, described in subparagraphs (A) through (F).

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section, to remain available until expended.

SEC. 9054. GREEN MEETINGS.

(a) PURCHASE OF MEETING AND CONFERENCE SERVICES.—Not later than 180 days after the date of the enactment of this Act, the Administrator for Federal Procurement Policy shall ensure that the Federal Acquisition Regulation is revised to require each Federal agency to consider, in each purchase of meeting and conference services, the environmentally preferable features and practices of a vendor in a manner substantially similar to that required of the Environmental Protection Agency in section 1523.703–1 (relating to acquisition of environmentally preferable meeting and conference services) and section 1552.223–71 (relating to EPA Green Meetings and Conferences) of title 48, Code of Federal Regulations, as set

forth in the Environmental Protection Agency final rule published on pages 18401 through 18404 of volume 72, Federal Register (April 12, 2007).

(b) DEFINITIONS.—In this section—

(1) the terms ''environmentally preferable'' and ''Federal agency'' have the meanings given them by section 2.101 of the Federal Acquisition Regulation; and

(2) the term ''meeting and conference services'' means the use of off-site commercial facilities for a Federal agency event, including an event for a meeting, conference, training session, or other purpose.

SEC. 9055. ENERGY SUSTAINABILITY AND EFFICIENCY GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.

Part G of title III of the Energy Policy and Conservation Act is amended by inserting after section 399 (42 U.S.C. 371h) the following:

''SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.

''(a) DEFINITIONS.—In this section:

''(1) ENERGY SUSTAINABILITY.—The term 'energy sustainability' includes using a renewable energy resource and a highly efficient technology for

electricity generation, transportation, heating, or cooling.

"(2) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

"(b) GRANTS FOR ENERGY EFFICIENCY IMPROVEMENT.—

"(1) IN GENERAL.—The Secretary shall award not more than 100 grants per year to institutions of higher education to carry out projects to improve energy efficiency on the grounds and facilities of the institution of higher education, including not less than 1 grant to an institution of higher education in each State.

"(2) CONDITION.—As a condition of receiving a grant under this subsection, an institution of higher education shall agree to—

"(A) implement a public awareness campaign concerning the project in the community in which the institution of higher education is located; and

"(B) submit to the Secretary, and make available to the public, reports on any efficiency improvements, energy cost savings, and environ-

mental benefits achieved as part of a project carried out under paragraph (1).

"(c) GRANTS FOR INNOVATION IN ENERGY SUSTAINABILITY.—

"(1) IN GENERAL.—The Secretary shall award not more than 250 grants per year to institutions of higher education to engage in innovative energy sustainability projects, including not less than 2 grants to institutions of higher education in each State.

"(2) INNOVATION PROJECTS.—An innovation project carried out with a grant under this subsection shall—

"(A) involve—

"(i) an innovative technology that is not yet commercially available; or

"(ii) available technology in an innovative application that maximizes energy efficiency and sustainability;

"(B) have the greatest potential for testing or demonstrating new technologies or processes; and

"(C) ensure active student participation in the project, including the planning, implementation, evaluation, and other phases of the project.

"(3) CONDITION.—As a condition of receiving a grant under this subsection, an institution of higher education shall agree to submit to the Secretary, and make available to the public, reports that describe the results of the projects carried out under paragraph (1).

"(d) AWARDING OF GRANTS.—

"(1) APPLICATION.—An institution of higher education that seeks to receive a grant under this section may submit to the Secretary an application for the grant at such time, in such form, and containing such information as the Secretary may prescribe.

"(2) SELECTION.—The Secretary shall establish a committee to assist in the selection of grant recipients under this section.

"(e) ALLOCATION TO INSTITUTIONS OF HIGHER EDUCATION WITH SMALL ENDOWMENTS.—Of the amount of grants provided for a fiscal year under this section, the Secretary shall provide not less than 50 percent of the amount to institutions of higher education that have an endowment of not more than $100,000,000, with 50 percent of the allocation set aside for institutions of higher education that have an endowment of not more than $50,000,000.

"(f) GRANT AMOUNTS.—The maximum amount of grants for a project under this section shall not exceed—

"(1) in the case of grants for energy efficiency improvement under subsection (b), $1,000,000; or

"(2) in the case of grants for innovation in energy sustainability under subsection (c), $500,000.

"(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2008 through 2012.".

PART 5—INDUSTRIAL ENERGY EFFICIENCY

SEC. 9061. INDUSTRIAL ENERGY EFFICIENCY.

(a) AMENDMENT.—Title III of the Energy Policy and Conservation Act (42 U.S.C. 6201 and following) is amended by adding the following after part D:

"PART E—INDUSTRIAL ENERGY EFFICIENCY

"SEC. 371. SURVEY OF WASTE INDUSTRIAL ENERGY RECOVERY AND POTENTIAL USE.

"Congress finds that—

"(1) the Nation should encourage the use of otherwise wasted energy and the development of combined heat and power and other waste energy recovery projects where there is wasted thermal energy in large volumes at potentially useful temperatures;

"(2) such projects would increase energy efficiency and lower pollution by generating power with no incremental fossil fuel consumption;

"(3) because recovered waste energy and combined heat and power projects are associated with end-uses of thermal energy and electricity at the local level, they help avoid new transmission lines, reduce line losses, reduce local air pollutant emissions, and reduce vulnerability to extreme weather and terrorism; and

"(4) States, localities, electric utilities, and other electricity customers may benefit from private investments in recovered waste energy and combined heat and power projects at industrial and commercial sites by avoiding generation, transmission and distribution expenses, and transmission line loss expenses that may otherwise be required to be recovered from ratepayers.

"SEC. 372. DEFINITIONS.

"For purposes of this Part:

"(1) The term 'Administrator' means the Administrator of the Environmental Protection Agency.

"(2) The term 'waste energy' means__

"(A) exhaust heat and flared gases from any industrial process;

"(B) waste gas or industrial tail gas that would otherwise be flared, incinerated or vented;

"(C) a pressure drop in any gas, excluding any pressure drop to a condenser that subsequently vents the resulting heat; and

"(D) such other forms of waste energy as the Administrator may identify.

"(3) The term 'recoverable waste energy' means waste energy from which electricity or useful thermal energy may be recovered through modification of existing facilities or addition of new facilities.

"(4) The term 'net excess power' means, for any facility, recoverable waste energy recovered in the form of electricity in amounts exceeding the total consumption of electricity at the specific time of generation on the site where the facility is located.

"(5) The term 'useful thermal energy' is energy in the forms of direct heat, steam, hot water, or other thermal forms that is used in production and beneficial measures for heating, cooling, humidity control, process use, or other valid thermal end-use energy requirements, and for which fuel or electricity would otherwise be consumed.

"(6) The term 'combined heat and power system' means a facility—

"(A) that simultaneously and efficiently produces useful thermal energy and electricity; and

"(B) that recovers not less than 60 percent of the energy value in the fuel (on a lower-heating-value basis) in the form of useful thermal energy and electricity.

"(7) The terms 'electric utility', 'State regulated electric utility', 'nonregulated electric utility' and other terms used in this Part have the same meanings as when such terms are used in title I of the Public Utility Regulatory Policies Act of 1978 (relating to retail regulatory policies for electric utilities).

"SEC. 373. SURVEY AND REGISTRY.

"(a) RECOVERABLE WASTE-ENERGY INVENTORY PROGRAM.—The Administrator, in cooperation with State energy offices, shall establish a Recoverable Waste-Energy Inventory Program. The program shall include an ongoing survey of all major industrial and large commercial combustion sources in the United States and the sites where these are located, together with a review of each for quantity and quality of waste energy.

1 "(b) CRITERIA.—The Administrator shall, within 120
2 days after the enactment of this section, develop and pub-
3 lish proposed criteria subject to notice and comment, and
4 within 270 days of enactment, establish final criteria, to
5 identify and designate those sources and sites in the inven-
6 tory under subsection (a) where recoverable waste energy
7 projects or combined heat and power system projects may
8 have economic feasibility with a payback of invested costs
9 within 5 years or less from the date of first full project
10 operation (including incentives offered under this Part).
11 Such criteria will include standards that insure that
12 projects proposed for inclusion in the Registry are not de-
13 veloped for the primary purpose of making sales of excess
14 electric power under the regulatory treatment provided
15 under this Part.

16 "(c) TECHNICAL SUPPORT.—The Administrator shall
17 provide to owners or operators of combustion sources tech-
18 nical support and offer partial funding (up to one-half of
19 total costs) for feasibility studies to confirm whether or
20 not investment in recovery of waste energy or combined
21 heat and power at that source would offer a payback pe-
22 riod of 5 years or less.

23 "(d) REGISTRY.—(1) The Administrator shall, within
24 one year after the enactment of this section, establish a
25 Registry of Recoverable Waste-energy Sources, and sites

on which those sources are located, which meet the criteria set forth under subsection (b). The Administrator shall update the Registry on not less than a monthly basis, and make the Registry accessible to the public on the Environmental Protection Agency web site. Any State or electric utility may contest the listing of any source or site by submitting a petition to the Administrator.

"(2) The Administrator shall register and include on the Registry all sites meeting the criteria of subsection (b). The Administrator shall calculate the total amounts of potentially recoverable waste energy from sources at such sites, nationally and by State, and shall make such totals public, together with information on the air pollutant and greenhouse gas emissions savings that might be achieved with recovery of the waste energy from all sources and sites listed in the Registry.

"(3) The Administrator shall notify owners or operators of Recoverable Waste-Energy Sources and sites listed in the Registry prior to publishing the listing. The owner or operator of sources at such sites may elect to have detailed quantitative information concerning that site not made public by notifying the Administrator of that election. Information concerning that site shall be included in State totals unless there are fewer than 3 sites in the State.

"(4) As waste energy projects achieve successful recovery of waste energy, the Administrator shall remove the related sites or sources from the Registry, and shall designate the removed projects as eligible for the incentive provisions provided under this Part and the regulatory treatment required by this Part. No project shall be removed from the Registry without the consent of the owner or operator of the project if the owner or operator has submitted a petition under section 375 and such petition has not been acted upon or denied.

"(5) The Administrator shall not list any source constructed after the date of the enactment of this Part on the Registry if the Administrator determines that such source—

"(A) was developed for the primary purpose of making sales of excess electric power under the regulatory treatment provided under this Part; or

"(B) does not capture at least 60 percent of the total energy value of the fuels used (on a lower-heating-value basis) in the form of useful thermal energy, electricity, mechanical energy, chemical output, or some combination of them.

"(e) SELF-CERTIFICATION.—Owners, operators, or third-party developers of industrial waste-energy projects that qualify under standards established by the Adminis-

trator may self-certify their sites or sources to the Administrator for inclusion in the Registry, subject to procedures adopted by the Administrator. To prevent a fraudulent listing, the sources shall be included on the Registry only if the Administrator confirms the submitted data, at the Administrator's discretion.

"(f) NEW FACILITIES.—As a new energy-consuming industrial facility is developed after the enactment of this Part, to the extent it may constitute a site with recoverable waste energy that may qualify for the Registry, the Administrator may elect to include it in the Registry at the request of its owner or operator or developer on a conditional basis, removing the site if its development ceases or it if fails to qualify for listing under this Part.

"(g) OPTIMUM MEANS OF RECOVERY.—For each site listed in the Registry, at the request of the owner or operator of the site, the Administrator shall offer, in cooperation with Clean Energy Application Centers operated by the Secretary of Energy, suggestions of optimum means of recovery of value from waste energy stream in the form of electricity, useful thermal energy, or other energy-related products.

"(h) REVISION.—Each annual State report under section 548(a) of the National Energy Conservation Policy

Act shall include the results of the survey for that State under this section.

"(i) AUTHORIZATION.—There are authorized to be appropriated to the Administrator for the purposes of creating and maintaining the Registry and services authorized by this section not more than $1,000,000 for each of fiscal years 2008, 2009, 2010, 2010, and 2012 and not more than $5,000,000 to the States to provide funding for State energy office functions under this section.

"SEC. 374. WASTE ENERGY RECOVERY INCENTIVE GRANT PROGRAM.

"(a) ESTABLISHMENT OF PROGRAM.—There is established in the Environmental Protection Agency a Waste Energy Recovery Incentive Grant Program to provide incentive grants to owners and operators of projects that successfully produce electricity or incremental useful thermal energy from waste energy recovery (and to utilities purchasing or distributing such electricity) and to reward States that have achieved 80 percent or more of identified waste-heat recovery opportunities.

"(b) GRANTS TO PROJECTS AND UTILITIES.—

"(1) IN GENERAL.—The Administrator shall make grants to the owners or operators of waste energy recovery projects, and, in the case of excess power purchased or transmitted by a electric utility,

to such utility. Grants may only be made upon receipt of proof of waste energy recovery or excess electricity generation, or both, from the project in a form prescribed by the Administrator, by rule.

"(2) EXCESS ELECTRIC ENERGY.—In the case of waste energy recovery, the grants under this section shall be made at the rate of $10 per megawatt hour of documented electricity produced from recovered waste energy (or by prevention of waste energy in the case of a new facility) by the project during the first 3 calendar years of such production, beginning on or after the date of enactment of this Part. If the project produces net excess power and an electric utility purchases or transmits the excess power, 50 percent of so much of such grant as is attributable to the net excess power shall be paid to the electric utility purchasing or transporting the net excess power.

"(3) USEFUL THERMAL ENERGY.—In the case of waste energy recovery that produces useful thermal energy that is used for a purpose different from that for which the project is principally designed, the grants under this section shall be made to the owner or operator of the waste energy recovery project at

the rate of $10 for each 3,412,000 Btus of such excess thermal energy used for such different purpose.

"(c) GRANTS TO STATES.—In the case of States that have achieved 80 percent or more of waste-heat recovery opportunities identified by the Administrator under this Part, the Administrator shall make grants to the States of up to $1,000 per Megawatt of waste-heat capacity recovered (or its thermal equivalent) to support State-level programs to identify and achieve additional energy efficiency.

"(d) ELIGIBILITY.—The Administrator shall establish rules and guidelines to establish eligibility for grants, shall make the grant program known to those listed in the Registry, and shall offer such grants on the basis of the merits of each project in recovering or preventing waste energy throughout the United States on an impartial, objective, and not unduly discriminatory basis.

"(e) AUTHORIZATION.—(1) There is authorized to be appropriated to the Administrator $100,000,000 for fiscal year 2008, and $200,000,000 for each of fiscal years 2009, 2010, 2011, and 2012 for grants under subsection (b) of this section, and such additional amounts during those years and thereafter as may be necessary for administration of the Waste Energy Recovery Incentive Grant Program.

"(2) There is authorized to be appropriated to the Administrator not more than $10,000,000 for each of the first five fiscal years after the enactment of this Part, to be available until expended for purposes of grants to States under subsection (c).

"SEC. 375. ADDITIONAL INCENTIVES FOR RECOVERY, UTILIZATION AND PREVENTION OF INDUSTRIAL WASTE ENERGY.

"(a) CONSIDERATION OF STANDARD.—Not later than 180 days after the receipt by a State regulatory authority (with respect to each electric utility for which it has ratemaking authority), or nonregulated electric utility, of a request from a project sponsor or owner or operator, the State regulatory authority or nonregulated electric utility shall provide public notice and conduct a hearing respecting the standard established by subsection (b) and, on the basis of such hearing, shall consider and make a determination whether or not it is appropriate to implement such standard to carry out the purposes of this Part. For purposes of any such determination and any review of such determination in any court the purposes of this section supplement otherwise applicable State law. Nothing in this Part prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any such

standard, pursuant to its authority under otherwise applicable State law.

"(b) STANDARD FOR SALES OF EXCESS POWER.—For purposes of this section, the standard referred to in subsection (a) shall provide that an owner or operator of a waste energy recovery project identified on the Registry who generates net excess power shall be eligible to benefit from at least one of the options described in subsection (c) for disposal of the net excess power in accordance with the rate conditions and limitations described in subsection (d).

"(c) OPTIONS.—The options referred to in subsection (b) are as follows:

"(1) SALE OF NET EXCESS POWER TO UTILITY.—The electric utility shall purchase the net excess power from the owner or operator of the eligible waste-energy recovery project during the operation of the project under a contract entered into for that purpose.

"(2) TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTY.—The electric utility shall transmit the net excess power on behalf of the project owner or operator to up to three separate locations on that utility's system for direct sale by that owner or operator to third parties at such locations.

"(3) TRANSPORT OVER PRIVATE TRANSMISSION LINES.—The State and the electric utility shall permit, and shall waive or modify such laws as would otherwise prohibit, the construction and operation of private electric wires constructed, owned and operated by the project owner or operator, to transport such power to up to 3 purchasers within a 3-mile radius of the project, allowing such wires to utilize or cross public rights-of-way, without subjecting the project to regulation as a public utility, and according such wires the same treatment for safety, zoning, land-use and other legal privileges as apply or would apply to the utility's own wires, except that—

"(A) there shall be no grant of any power of eminent domain to take or cross private property for such wires, and

"(B) such wires shall be physically segregated and not interconnected with any portion of the utility's system, except on the customer's side of the utility's revenue meter and in a manner that precludes any possible export of such electricity onto the utility system, or disruption of such system.

"(4) AGREED UPON ALTERNATIVES.—The utility and the owner or operator of the project may

reach agreement on any alternate arrangement and its associated payments or rates that is mutually satisfactory and in accord with State law.

"(d) RATE CONDITIONS AND CRITERIA.—

"(1) IN GENERAL.—The options described in paragraphs (1) and (2) in subsection (c) shall be offered under purchase and transport rate conditions reflecting the rate components defined under paragraph (2) of this subsection as applicable under the circumstances described in paragraph (3) of this subsection.

"(2) RATE COMPONENTS.—For purposes of this section:

"(A) PER UNIT DISTRIBUTION COSTS.—The term 'per unit distribution costs' means the utility's depreciated book-value distribution system costs divided by the previous year's volume of utility electricity sales or transmission at the distribution level in kilowatt hours.

"(B) PER UNIT DISTRIBUTION MARGIN.—The term 'per unit distribution margin' means:

"(i) In the case of a State regulated electric utility, a per-unit gross pretax profit determined by multiplying the utility's State-approved percentage rate of re-

turn for distribution system assets by the per unit distribution costs.

"(ii) In the case of an nonregulated utility, a per unit contribution to net revenues determined by dividing the amount of any net revenue payment or contribution to the nonregulated utility's owners or subscribers in the prior year by the utility's gross revenues for the prior year to obtain a percentage (but not less than 10 percent) and multiplying that percentage by the per unit distribution costs.

"(C) PER UNIT TRANSMISSION COSTS.—The term 'per unit transmission costs' means the total cost of those transmission services purchased or provided by a utility on a per-kilowatt-hour basis as included in that utility's retail rate.

"(3) APPLICABLE RATES.—

"(A) RATES APPLICABLE TO SALE OF NET EXCESS POWER.—Sales made by a project owner or operator under the option described in subsection (c) (1) shall be paid for on a per kilowatt hour basis that shall equal the full undiscounted retail rate paid to the utility for

power purchased by such a facility *minus* per unit distribution costs, as applicable to the type of utility purchasing the power. If the net excess power is made available for purchase at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be available for resale by the utility, then the purchase price shall further be reduced by per unit transmission costs.

"(B) RATES APPLICABLE TO TRANSPORT BY UTILITY FOR DIRECT SALE TO THIRD PARTIES.—Transportation by utilities of power on behalf of the owner or operator of a project under the option described in subsection (c)(2) shall incur a transportation rate equal to the per unit distribution costs and per unit distribution margin, as applicable to the type of utility transporting the power. If the net excess power is made available for transportation at voltages that must be transformed to or from voltages exceeding 25 kilovolts to be transported to the designated third-party purchasers, then the transport rate shall further be increased by per unit transmission costs. In States with competitive retail markets for elec-

tricity, the applicable transportation rate for similar transportation shall be applied in lieu of any rate calculated under this paragraph.

"(4) LIMITATIONS.—(A) Any rate established for sale or transportation under this section shall be modified over time with changes in the electric utility's underlying costs or rates, and shall reflect the same time-sensitivity and billing periods as are established in the retail sales or transportation rates offered by the utility.

"(B) No utility shall be required to purchase or transport an amount of net excess power under this section that exceeds the available capacity of the wires, meter, or other equipment of the electric utility serving the site unless the owner or operator of the project agrees to pay necessary and reasonable upgrade costs.

"(e) PROCEDURAL REQUIREMENTS FOR CONSIDERATION AND DETERMINATION.—(1) The consideration referred to in subsection (b) shall be made after public notice and hearing. The determination referred to in subsection (b) shall be—

"(A) in writing,

"(B) based upon findings included in such determination and upon the evidence presented at the hearing, and

"(C) available to the public.

"(2) The Administrator may intervene as a matter of right in a proceeding conducted under this section and may calculate the energy and emissions likely to be saved by electing to adopt one or more of the options, as well as the costs and benefits to ratepayers and the utility and to advocate for the waste-energy recovery opportunity.

"(3) Except as otherwise provided in paragraph (1), and paragraph (2), the procedures for the consideration and determination referred to in subsection (a) shall be those established by the State regulatory authority or the nonregulated electric utility. In the instance that there is more than one project seeking such consideration simultaneously in connection with the same utility, such proceeding may encompass all such projects, provided that full attention is paid to their individual circumstances and merits, and an individual judgment is reached with respect to each project.

"(f) IMPLEMENTATION.—(1) The State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric util-

ity may, to the extent consistent with otherwise applicable State law—

"(A) implement the standard determined under this section, or

"(B) decline to implement any such standard.

"(2) If a State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility declines to implement any standard established by this section, such authority or nonregulated electric utility shall state in writing the reasons therefor. Such statement of reasons shall be available to the public, and the Administrator shall include the project in an annual report to Congress concerning lost opportunities for waste-heat recovery, specifically identifying the utility and stating the amount of lost energy and emissions savings calculated. If a State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility declines to implement the standard established by this section, the project sponsor may submit a new petition under this section with respect to such project at any time after 24 months after the date on which the State regulatory authority or nonregulated utility has declined to implement such standard.

"SEC. 376. CLEAN ENERGY APPLICATION CENTERS.

"(a) PURPOSE.—The purpose of this section is to rename and provide for the continued operation of the United States Department of Energy's Regional Combined Heat and Power (CHP) Application Centers.

"(b) FINDINGS.—The Congress finds the Department of Energy's Regional Combined Heat and Power (CHP) Application Centers program has produced significant energy savings and climate change benefits and will continue to do so through the deployment of clean energy technologies such as Combined Heat and Power (CHP), recycled waste energy and biomass energy systems, in the industrial and commercial energy markets.

"(c) RENAMING.—The Combined Heat and Power Application Centers at the Department of Energy are hereby be redesignated as Clean Energy Application Centers. Any reference in any law, rule or regulation or publication to the Combined Heat and Power Application Centers shall be treated as a reference to the Clean Energy Application Centers.

"(d) RELOCATION.—In order to better coordinate efforts with the separate Industrial Assessment Centers and to assure that the energy efficiency and, when applicable, the renewable nature of deploying mature clean energy technology is fully accounted for, the Secretary of Energy shall relocate the administration of the Clean Energy Ap-

plication Centers to the Office of Energy Efficiency and Renewable Energy within the Department of Energy. The Office of Electricity Delivery and Energy Reliability shall continue to perform work on the role of such technology in support of the grid and its reliability and security, and shall assist the Clean Energy Application Centers in their work with regard to the grid and with electric utilities.

"(e) GRANTS.—

"(1) IN GENERAL.—The Secretary of Energy shall make grants to universities, research centers, and other appropriate institutions to assure the continued operations and effectiveness of 8 Regional Clean Energy Application Centers in each of the following regions (as designated for such purposes as of the date of the enactment of this section):

"(A) Gulf Coast.

"(B) Intermountain.

"(C) Mid-Atlantic.

"(D) Midwest.

"(E) Northeast.

"(F) Northwest.

"(G) Pacific.

"(H) Southeast.

"(2) ESTABLISHMENT OF GOALS AND COMPLIANCE.—In making grants under this section, the

Secretary shall ensure that sufficient goals are established and met by each Center throughout the program duration concerning outreach and technology deployment.

"(f) ACTIVITIES.—Each Clean Energy Application Center shall operate a program to encourage deployment of clean energy technologies through education and outreach to building and industrial professionals, and to other individuals and organizations with an interest in efficient energy use. In addition, the Centers shall provide project specific support to building and industrial professionals through assessments and advisory activities. Funds made available under this section may be used for the following activities:

"(1) Developing and distributing informational materials on clean energy technologies, including continuation of the eight existing Web sites.

"(2) Developing and conducting target market workshops, seminars, internet programs and other activities to educate end users, regulators, and stakeholders in a manner that leads to the deployment of clean energy technologies.

"(3) Providing or coordinating onsite assessments for sites and enterprises that may consider deployment of clean energy technology.

"(4) Performing market research to identify high profile candidates for clean energy deployment.

"(5) Providing consulting support to sites considering deployment of clean energy technologies.

"(6) Assisting organizations developing clean energy technologies to overcome barriers to deployment.

"(7) Assisting companies and organizations with performance evaluations of any clean energy technology implemented.

"(g) DURATION.—A grant awarded under this section shall be for a period of 5 years. each grant shall be evaluated annually for its continuation based on its activities and results.

"(h) AUTHORIZATION.—There is authorized to be appropriated for purposes of this section the sum of $10,000,000 for each of fiscal years 2008, 2009, 2010, 2011, and 2012.".

(b) TABLE OF CONTENTS.—The table of contents for such Act is amended by inserting the following after the items relating to part D of title III:

"PART E—INDUSTRIAL ENERGY EFFICIENCY

"Sec. 371. Survey of waste industrial energy recovery and potential use.
"Sec. 372. Definitions.
"Sec. 373. Survey and registry.
"Sec. 374. Waste Energy Recovery Incentive Grant Program.
"Sec. 375. Additional incentives for recovery, utilization and prevention of industrial waste energy.
"Sec. 376. Clean Energy Application Centers.".

PART 6—ENERGY EFFICIENCY OF PUBLIC INSTITUTIONS

SEC. 9071. SHORT TITLE.

This part may be cited as the ''Sustainable Energy Institutional Infrastructure Act of 2007''.

SEC. 9072. FINDINGS.

The Congress finds the following:

(1) Many institutional entities own and operate, or are served by, district energy systems.

(2) A variety of renewable energy resources could be tapped by governmental and institutional energy systems to meet energy requirements.

(3) Use of these renewable energy resources to meet energy requirements will reduce reliance on fossil fuels and the associated emissions of air pollution and carbon dioxide.

(4) CHP is a highly efficient and environmentally beneficial means to generate electric energy and heat, and offers total efficiency much greater than conventional separate systems, where electric energy is generated at and transmitted long distances from a centrally located generation facility, and onsite heating and cooling equipment is used to meet nonelectric energy requirements.

(5) Heat recovered in a CHP generation system can be used for space heating, domestic hot water,

or process steam requirements, or can be converted to cooling energy to meet air conditioning requirements.

(6) The increased efficiency of CHP results in reduction in emissions of air pollution and carbon dioxide.

(7) District energy systems represent a key opportunity for expanding implementation of CHP because district energy systems provide a means of delivering thermal energy from CHP to a substantial base of end users.

(8) District energy systems help cut peak power demand and reduce power transmission and distribution system constraints by meeting air conditioning demand through delivery of chilled water produced with CHP-generated heat or other energy sources, shifting power demand through thermal storage, and, with CHP, generating power near load centers.

(9) Evaluation and implementation of sustainable energy infrastructure is a complex undertaking involving a variety of technical, economic, legal, and institutional issues and barriers, and technical assistance is often required to successfully navigate these barriers.

(10) The major constraint to significant expansion of sustainable energy infrastructure by institutional entities is a lack of capital funding for implementation.

SEC. 9073. DEFINITIONS.

For purposes of this part—

(1) the term ''CHP'' means combined heat and power, or the generation of electric energy and heat in a single, integrated system;

(2) the term ''district energy systems'' means systems providing thermal energy to buildings and other energy consumers from one or more plants to individual buildings to provide space heating, air conditioning, domestic hot water, industrial process energy, and other end uses;

(3) the term ''institutional entities'' means local governments, public school districts, municipal utilities, State governments, Federal agencies, and other entities established by local, State, or Federal agencies to meet public purposes, and public or private colleges, universities, airports, and hospitals;

(4) the term ''renewable thermal energy sources'' means non-fossil-fuel energy sources, including biomass, geothermal, solar, natural sources of cooling such as cold lake or ocean water, and

other sources that can provide heating or cooling energy;

(5) the term ''sustainable energy infrastructure'' means facilities for production of energy from CHP or renewable thermal energy sources and distribution of thermal energy to users; and

(6) the term ''thermal energy'' means heating or cooling energy in the form of hot water or steam (heating energy) or chilled water (cooling energy).

SEC. 9074. TECHNICAL ASSISTANCE PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy shall, with funds appropriated for this purpose, implement a program of information dissemination and technical assistance to institutional entities to assist them in identifying, evaluating, designing, and implementing sustainable energy infrastructure.

(b) INFORMATION DISSEMINATION.—The Secretary shall develop and disseminate information and assessment tools addressing—

(1) identification of opportunities for sustainable energy infrastructure;

(2) technical and economic characteristics of sustainable energy infrastructure;

(3) utility interconnection, and negotiation of power and fuel contracts;

(4) financing alternatives;

(5) permitting and siting issues;

(6) case studies of successful sustainable energy infrastructure systems; and

(7) computer software for assessment, design, and operation and maintenance of sustainable energy infrastructure systems.

(c) ELIGIBLE COSTS.—Upon application by an institutional entity, the Secretary may make grants to such applicant to fund—

(1) 75 percent of the cost of feasibility studies to assess the potential for implementation or improvement of sustainable energy infrastructure;

(2) 60 percent of the cost of guidance on overcoming barriers to project implementation, including financial, contracting, siting, and permitting barriers; and

(3) 45 percent of the cost of detailed engineering and design of sustainable energy infrastructure.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $15,000,000 for fiscal year 2008, $15,000,000 for fiscal year 2009, and $15,000,000 for fiscal year 2010.

SEC. 9075. REVOLVING FUND.

(a) ESTABLISHMENT.—The Secretary of Energy shall, with funds appropriated for this purpose, create a Sustainable Institutions Revolving Fund for the purpose of establishing and operating a Sustainable Institutions Revolving Fund (in this section referred to as the ''SIRF'') for the purpose of providing loans for the construction or improvement of sustainable energy infrastructure to serve institutional entities.

(b) ELIGIBLE COSTS.—A loan provided from the SIRF shall be for no more than 70 percent of the total capital costs of a project, and shall not exceed $15,000,000. Such loans shall be for constructing sustainable energy infrastructure, including—

(1) plant facilities used for producing thermal energy, electricity, or both;

(2) facilities for storing thermal energy;

(3) facilities for distribution of thermal energy; and

(4) costs for converting buildings to use thermal energy from sustainable energy sources.

(c) QUALIFICATIONS.—Loans from the SIRF may be made to institutional entities for projects meeting the qualifications and conditions established by the Secretary, including the following minimum qualifications:

(1) The project shall be technically and economically feasible as determined by a detailed feasibility analysis performed or corroborated by an independent consultant.

(2) The borrower shall demonstrate that adequate and comparable financing was not found to be reasonably available from other sources, and that the project is economically more feasible with the availability of the SIRF loan.

(3) The borrower shall obtain commitments for the remaining capital required to implement the project, contingent on approval of the SIRF loan.

(4) The borrower shall provide to the Secretary reasonable assurance that all laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed in whole or in part with a loan provided under this section will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly referred to as the Davis-Bacon Act).

(d) FINANCING TERMS.—(1) Interest on a loan under this section may be a fixed rate or floating rate, and shall

be equal to the Federal cost of funds consistent with the loan type and term, minus 1.5 percent.

(2) Interest shall accrue from the date of the loan, but the first payment of interest shall be deferred, if desired by the borrower, for a period ending not later than 3 years after the initial date of operation of the system.

(3) Interest attributable to the period of deferred payment shall be amortized over the remainder of the loan term.

(4) Principal shall be repaid on a schedule established at the time the loan is made. Such payments shall begin not later than 3 years after the initial date of operation of the system.

(5) Loans made from the SIRF shall be repayable over a period ending not more than 20 years after the date the loan is made.

(6) Loans shall be prepayable at any time without penalty.

(7) SIRF loans shall be subordinate to other loans for the project.

(e) FUNDING CYCLES.—Applications for loans from the SIRF shall be received on a periodic basis at least semiannually.

(f) APPLICATION OF REPAYMENTS FOR DEFICIT REDUCTION.—Loans from the SIRF shall be made, with

1 funds available for this purpose, during the 10 years start-
2 ing from the date that the first loan from the fund is
3 made. Until this 10-year period ends, funds repaid by bor-
4 rowers shall be deposited in the SIRF to be made available
5 for additional loans. Once loans from the SIRF are no
6 longer being made, repayments shall go directly into the
7 United States Treasury.

8 (g) PRIORITIES.—In evaluating projects for funding,
9 priority shall be given to projects which—

10 (1) maximize energy efficiency;

11 (2) minimize environmental impacts, including
12 from regulated air pollutants, greenhouse gas emis-
13 sions, and the use of refrigerants known to cause
14 ozone depletion;

15 (3) use renewable energy resources;

16 (4) maximize oil displacement; and

17 (5) benefit economically-depressed areas.

18 (h) REGULATIONS.—Not later than one year after
19 the date of enactment of this Act, the Secretary of Energy
20 shall develop a plan and adopt rules and procedures for
21 establishing and operating the SIRF.

22 (i) PROGRAM REVIEW.—Every two years the Sec-
23 retary shall report to the Congress on the status and
24 progress of the SIRF.

(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $250,000,000 for fiscal year 2008 and $500,000,000 for each of the fiscal years 2009 through 2012.

SEC. 9076. REAUTHORIZATION OF STATE ENERGY PROGRAMS.

Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking ''$100,000,000 for each of the fiscal years 2006 and 2007 and $125,000,000 for fiscal year 2008'' and inserting ''$125,000,000 for each of the fiscal years 2007, 2008, 2009, 2010, 2011, and 2012''.

SEC. 9077. STUDY ON INDOOR ENVIRONMENTAL QUALITY IN SCHOOLS.

(a) IN GENERAL.—The Administrator of the Environmental Protection Agency shall enter into an arrangement with the Secretary of Education and the Secretary of Energy to conduct a detailed study of how sustainable building features such as energy efficiency affect multiple perceived indoor environmental quality stressors on students in K–12 schools.

(b) CONTENTS.—The study shall—

(1) investigate synergistic effects of multiple perceived stressors, including thermal discomfort, visual discomfort, acoustical dissatisfaction such as

noise and loss of speech privacy, and air quality dissatisfaction;

(2) identify how sustainable building features, such as energy efficiency, are influencing these human outcomes singly and in concert; and

(3) ensure that the impacts of the indoor environmental quality are evaluated as a whole.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for carrying out this section $200,000 for each of the fiscal years 2008 through 2012.

PART 7—ENERGY SAVINGS PERFORMANCE CONTRACTING

SEC. 9081. DEFINITION OF ENERGY SAVINGS.

Section 804(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(2)) is amended—

(1) by redesignating subparagraphs (A), (B), and (C) as clauses (i), (ii), and (iii), respectively, and indenting appropriately;

(2) by striking ''means a reduction'' and inserting ''means—

''(A) a reduction'';

(3) by striking the period at the end and inserting a semicolon; and

(4) by adding at the end the following:

"(B) the increased efficient use of an existing energy source by cogeneration or heat recovery, and installation of renewable energy systems;

"(C) if otherwise authorized by Federal or State law (including regulations), the sale or transfer of electrical or thermal energy generated onsite but in excess of Federal needs, to utilities or non-Federal energy users; and

"(D) the increased efficient use of existing water sources in interior or exterior applications.".

SEC. 9082. FINANCING FLEXIBILITY.

Section 801(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)) is amended by adding at the end the following:

"(E) SEPARATE CONTRACTS.—In carrying out a contract under this title, a Federal agency may—

"(i) enter into a separate contract for energy services and conservation measures under the contract; and

"(ii) provide all or part of the financing necessary to carry out the contract.".

SEC. 9083. AUTHORITY TO ENTER INTO CONTRACTS; REPORTS.

(a) AUTHORITY TO ENTER INTO CONTRACTS.—Section 801(a)(2)(D) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)(D)) is amended—

(1) in clause (ii), by inserting ''and'' after the semicolon at the end;

(2) by striking clause (iii); and

(3) by redesignating clause (iv) as clause (iii).

(b) REPORTS.—Section 548(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)(2)) is amended by inserting ''and any termination penalty exposure'' after ''the energy and cost savings that have resulted from such contracts''.

(c) CONFORMING AMENDMENT.—Section 2913 of title 10, United States Code is amended by striking subsection (e).

SEC. 9084. PERMANENT REAUTHORIZATION.

Section 801 of the National Energy Conservation Policy Act (42 U.S.C. 8287) is amended by striking subsection (c).

SEC. 9085. TRAINING FEDERAL CONTRACTING OFFICERS TO NEGOTIATE ENERGY EFFICIENCY CONTRACTS.

(a) PROGRAM.—The Secretary of Energy shall create and administer in the Federal Energy Management Pro-

gram a training program to educate Federal contract negotiation and contract management personnel so that such contract officers are prepared to—

(1) negotiate energy savings performance contracts;

(2) conclude effective and timely contracts for energy efficiency services with all companies offering energy efficiency services; and

(3) review Federal contracts for all products and services for their potential energy efficiency opportunities and implications.

(b) SCHEDULE.—The Federal Energy Management Program shall plan, staff, announce, and begin such training not later than one year after the date of enactment of this Act.

(c) PERSONNEL TO BE TRAINED.—Personnel appropriate to receive such training shall be selected by and sent for such training from—

(1) the Department of Defense;

(2) the Department of Veterans Affairs;

(3) the Department of Energy;

(4) the General Services Administration;

(5) the Department of Housing and Urban Development;

(6) the United States Postal Service; and

(7) all other Federal agencies and departments that enter contracts for buildings, building services, electricity and electricity services, natural gas and natural gas services, heating and air conditioning services, building fuel purchases, and other types of procurement or service contracts determined by Federal Energy Management Program to offer the potential for energy savings and greenhouse gas emission reductions if negotiated with such goals in mind.

(d) TRAINERS.—Such training may be conducted by attorneys or contract officers with experience in negotiating and managing such contracts from any agency, and the Department of Energy shall reimburse their related salaries and expenses from amounts appropriated for carrying out this section to the extent they are not already employees of the Department of Energy. Such training may also be provided by private experts hired by the Department of Energy for the purposes of this section, except that the Department may not hire experts who are simultaneously employed by any company under contract to provide such energy efficiency services to the Federal Government.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of En-

ergy for carrying out this section $750,000 for each of fiscal years 2008 through 2012.

SEC. 9086. PROMOTING LONG-TERM ENERGY SAVINGS PERFORMANCE CONTRACTS AND VERIFYING SAVINGS.

Section 801(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)) is amended—

(1) in subparagraph (D), by inserting ''beginning on the date of the delivery order'' after ''25 years''; and

(2) by adding at the end the following:

''(F) PROMOTION OF CONTRACTS.—In carrying out this section, a Federal agency shall not—

''(i) establish a Federal agency policy that limits the maximum contract term under subparagraph (D) to a period shorter than 25 years; or

''(ii) limit the total amount of obligations under energy savings performance contracts or other private financing of energy savings measures.

''(G) MEASUREMENT AND VERIFICATION REQUIREMENTS FOR PRIVATE FINANCING.—

''(i) IN GENERAL.—The evaluations and savings measurement and verification required under paragraphs (1) and (3) of section 543(f) shall be used by a Federal agency to meet the requirements for—

"(I) in the case of energy savings performance contracts, the need for energy audits, calculation of energy savings, and any other evaluation of costs and savings needed to implement the guarantee of savings under this section; and

"(II) in the case of utility energy service contracts, needs that are similar to the purposes described in subclause (I).

"(ii) MODIFICATION OF EXISTING CONTRACTS.—Not later than 180 days after the date of enactment of this subparagraph, each Federal agency shall, to the maximum extent practicable, modify any indefinite delivery and indefinite quantity energy savings performance contracts, and other indefinite delivery and indefinite quantity contracts using private financing, to conform to the amendments made by subtitle G of title I of the Energy Efficiency Improvement Act of 2007.".

PART 8—ADVISORY COMMITTEE ON ENERGY EFFICIENCY FINANCING

SEC. 9089. ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—The Assistant Secretary of Energy for Energy Efficiency and Renewable Energy shall establish an advisory committee to provide advice and rec-

ommendations to the Department of Energy on energy efficiency finance and investment issues, options, ideas, and trends, and to assist the energy community in identifying practical ways of lowering costs and increasing investments in energy efficiency technologies.

(b) MEMBERSHIP.—The advisory committee established under this section shall have a balanced membership that shall include members representing the following communities:

(1) Providers of seed capital.

(2) Venture capitalists.

(3) Private equity sources.

(4) Investment banking corporate finance.

(5) Investment banking mergers and acquisitions.

(6) Equity capital markets.

(7) Debt capital markets.

(8) Research analysts.

(9) Sales and trading.

(10) Commercial lenders.

(11) Residential lenders.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to the Secretary of Energy for carrying out this section.

PART 9—ENERGY EFFICIENCY BLOCK GRANT PROGRAM

SEC. 9091. DEFINITIONS.

For purposes of this part—

(1) the term ''eligible entity'' means a State or an eligible unit of local government within a State;

(2) the term ''eligible unit of local government'' means—

(A) a city with a population of at least 50,000; and

(B) a county with a population of at least 200,000;

(3) the term ''Secretary'' means the Secretary of Energy; and

(4) the term ''State'' means one of the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Mariana Islands, and any other commonwealth, territory, or possession of the United States.

SEC. 9092. ESTABLISHMENT OF PROGRAM.

The Secretary shall establish an Energy Efficiency Block Grant Program to make block grants to eligible entities as provided in this part.

SEC. 9093. ALLOCATIONS.

(a) IN GENERAL.—Of the funds appropriated for making grants under this part for each fiscal year, the Secretary shall allocate 70 percent to be provided to eligible units of local government as provided in subsection (b) and 30 percent to be provided to States as provided in subsection (c).

(b) ELIGIBLE UNITS OF LOCAL GOVERNMENT.—The Secretary shall provide grants to eligible units of local government according to a formula giving equal weight to—

(1) population, according to the most recent available Census data; and

(2) daytime population, or another similar factor such as square footage of commercial, office, and industrial space, as determined by the Secretary.

(c) STATES.—The Secretary shall provide grants to States according to a formula based on population, according to the most recent available Census data.

(d) PUBLICATION OF ALLOCATION FORMULAS.—Not later than 90 days before the beginning of any fiscal year in which grants are to made under this part, the Secretary shall publish in the Federal Register the formulas for allocation described in subsection (b)(1) and (b)(2).

SEC. 9094. ELIGIBLE ACTIVITIES.

Funds provided through a grant under this part may be used for the following activities:

(1) Development and implementation of an Energy Efficiency Strategy under section 9095.

(2) Retaining technical consultant services to assist an eligible entity in the development of such Strategy, including—

(A) formulation of energy efficiency, energy conservation, and energy usage goals;

(B) identification of strategies to meet such goals through efforts to increase energy efficiency and reduce energy consumption;

(C) identification of strategies to encourage behavioral changes among the populace that will help achieve such goals;

(D) development of methods to measure progress in achieving such goals;

(E) development and preparation of annual reports to the citizenry of the eligible entity's energy efficiency strategies and goals, and progress in achieving them; and

(F) other services to assist in the implementation of the Energy Efficiency Strategy.

(3) Conducting energy audits.

(4) Development and implementation of weatherization programs.

(5) Creation of financial incentive programs for energy efficiency retrofits, including zero-interest or low-interest revolving loan funds.

(6) Grants to nonprofit organizations and governmental agencies for energy retrofits.

(7) Development and implementation of energy efficiency programs and technologies for buildings and facilities of nonprofit organizations and governmental agencies.

(8) Development and implementation of building and home energy conservation programs, including—

(A) design and operation of the programs;

(B) identifying the most effective methods for achieving maximum participation and efficiency rates;

(C) public education;

(D) measurement protocols; and

(E) identification of energy efficient technologies.

(9) Development and implementation of energy conservation programs, including—

(A) use of flex time by employers;

(B) satellite work centers; and

(C) other measures that have the effect of increasing energy efficiency and decreasing energy consumption.

(10) Development and implementation of building codes and inspection services for public, commercial, industrial, and single and multifamily residential buildings to promote energy efficiency.

(11) Application and implementation of alternative energy and energy distribution technologies that significantly increase energy efficiency and promote distributed resources and district heating and cooling systems.

(12) Development and promotion of zoning guidelines or requirements that result in increased energy efficiency, efficient development, active living land use planning, and infrastructure such as bike lanes and pathways, and pedestrian walkways.

(13) Promotion of greater participation and efficiency rates for material conservation programs, including source reduction, recycling, and recycled content procurement programs that lead to increases in energy efficiency.

(14) Establishment of a State, county, or city office to assist in the development and implementation of the Energy Efficiency Strategy.

SEC. 9095. REQUIREMENTS.

(a) REQUIREMENTS FOR ELIGIBLE UNITS OF LOCAL GOVERNMENT.—

(1) PROPOSED STRATEGY.—Not later than 1 year after being awarded a grant under this part, an eligible unit of local government shall submit to the Secretary a proposed Energy Efficiency Strategy which establishes goals for increased energy efficiency in the jurisdiction of the eligible units of local government. The Strategy shall include plans for the use of funds received under the grant to assist the eligible unit of local government in the achievement of such goals, consistent with section 9094. In developing such a Strategy, an eligible unit of local government shall take into account any plans for the use of funds by adjoining eligible units of local governments funded under this part.

(2) APPROVAL.—The Secretary shall approve or disapprove a proposed Strategy submitted under paragraph (1) not later than 90 days after receiving it. If the Secretary disapproves a proposed Strategy, the Secretary shall provide to the eligible unit of local government the reasons for such disapproval. The eligible unit of local government may revise and resubmit the Strategy, as many times as required, until approval is granted.

(3) FUNDING FOR PREPARATION OF STRATEGY.—

(A) IN GENERAL.—Until the Secretary has approved a proposed Energy Efficiency Strategy under paragraph (2), the Secretary shall only disburse to an eligible unit of local government $200,000 or 20 percent of the grant, whichever is greater, which may be used only for preparation of the Strategy.

(B) REMAINDER OF FUNDS.—The remainder of an eligible unit of local government's grant funds awarded but not disbursed under subparagraph (A) shall remain available and shall be disbursed by the Secretary upon approval of the Strategy.

(4) LIMITATIONS ON USE OF FUNDS.—Of the amounts provided through a grant under this part, an eligible unit of local government may use—

(A) not more than 10 percent, or $75,000, whichever is greater, for administrative expenses, not including expenses needed to meet reporting requirements under this part;

(B) not more than 20 percent, or $250,000, whichever is greater, for the establishment of revolving loan funds; and

(C) not more than 20 percent, or $250,000, whichever is greater, for subgranting to nongovernmental organizations for the purpose of assisting in the implementation of the Energy Efficiency Strategy.

(5) ANNUAL REPORT.—Not later than 2 years after receipt of the first disbursement of funds from a grant awarded under this part, and annually thereafter, an eligible unit of local government shall submit a report to the Secretary on the status of the Strategy's development and implementation, and, where practicable, a best available assessment of energy efficiency gains within the jurisdiction of the eligible unit of local government.

(b) REQUIREMENTS FOR STATES.—

(1) ALLOCATION OF GRANT FUNDS.—A State receiving a grant under this part shall use at least 70 percent of the funds received to provide subgrants to units of local government in the State that are not eligible units of local government. The State shall make such subgrant awards not later than 6 months after approval of the State's Strategy under paragraph (3).

(2) PROPOSED STRATEGY.—Not later than 120 days the date of enactment of this Act, each State

shall submit to the Secretary a proposed Energy Efficiency Strategy which establishes a process for making subgrants described in paragraph (1), and establishes goals for increased energy efficiency in the jurisdiction of the State. The Strategy shall include plans for the use of funds received under a grant under this part to assist the State in the achievement of such goals, consistent with section 9094.

(3) APPROVAL.—The Secretary shall approve or disapprove a proposed Strategy submitted under paragraph (2) not later than 90 days after receiving it. If the Secretary disapproves a proposed Strategy, the Secretary shall provide to the State the reasons for such disapproval. The State may revise and resubmit the Strategy, as many times as required, until approval is granted.

(4) FUNDING FOR PREPARATION OF STRATEGY.—

(A) IN GENERAL.—Until the Secretary has approved a proposed Energy Efficiency Strategy under paragraph (2), the Secretary shall only disburse to a State $200,000 or 20 percent of the grant, whichever is greater, which may be used only for preparation of the Strategy.

(B) REMAINDER OF FUNDS.—The remainder of a State's grant funds awarded but not disbursed under subparagraph (A) shall remain available and shall be disbursed by the Secretary upon approval of the Strategy.

(5) LIMITATIONS ON USE OF FUNDS.—Of the amounts provided through a grant under this part, a State may use not more than 10 percent for administrative expenses.

(6) ANNUAL REPORTS.—A State shall annually report to the Secretary on the development and implementation of its Strategy. Each such report shall include—

(A) a status report on the State's subgrant program described in paragraph (1);

(B) a best available assessment of energy efficiency gains achieved through the State's Strategy; and

(C) specific energy efficiency and energy conservation goals for future years.

(c) STATE AND LOCAL ADVISORY COMMITTEE.—

(1) STATE AND LOCAL ADVISORY COMMITTEE.—The Secretary shall establish a State and Local Advisory Committee to provide advice regard-

ing the administration, direction, and evaluation of the program under this part.

SEC. 9096. REVIEW AND EVALUATION.

The Secretary may review and evaluate the performance of grant recipients, including by performing audits, and may deny funding to such grant recipients for failure to properly adhere to—

(1) the Secretary's guidelines and regulations relating to the program under this part, including the misuse or misappropriation of funds; or

(2) the grant recipient's Strategy.

SEC. 9097. TECHNICAL ASSISTANCE AND EDUCATION PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish and carry out a technical assistance and education program to provide—

(1) technical assistance to State and local governments;

(2) public education programs;

(3) demonstration of innovative energy efficiency systems and practices; and

(4) identification of effective measurement methodologies and methods for changing or influencing public participation in, and awareness of, energy efficiency programs.

(b) ELIGIBLE RECIPIENTS.—Eligible recipients of assistance under this section shall include State and local governments, State and local government associations, public and private nonprofit organizations, and colleges and universities.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this section $150,000,000 for each of the fiscal years 2008 through 2012.

SEC. 9098. AUTHORIZATION OF APPROPRIATIONS.

(a) GRANTS.—There are authorized to be appropriated to the Secretary for grants under this part, $2,000,000,000 for each of fiscal years 2008 through 2012.

(b) ADMINISTRATION.—There are authorized to be appropriated to the Secretary for administrative expenses of the program established under this part—

(1) $20,000,000 for fiscal year 2008;

(2) $20,000,000 for fiscal year 2009;

(3) $25,000,000 for fiscal year 2010;

(4) $25,000,000 for fiscal year 2011; and

(5) $30,000,000 for fiscal year 2012.

Subtitle B—Smart Grid Facilitation

SEC. 9101. SHORT TITLE.

This subtitle may be cited as the ''Smart Grid Facilitation Act of 2007''.

PART 1—SMART GRID

SEC. 9111. STATEMENT OF POLICY ON MODERNIZATION OF ELECTRICITY GRID.

(a) SMART GRID CHARACTERISTICS.—It is the policy of the United States to support the modernization of the Nation's electricity transmission and distribution system to incorporate digital information and controls technology and to share real-time pricing information with electricity customers to achieve each of the following, which together characterize a smart grid:

(1) Increased reliability, security and efficiency of the electric grid.

(2) Dynamic optimization of grid operations and resources, with full cyber-security.

(3) Deployment and integration of distributed resources and generation.

(4) Development and incorporation of demand response demand-side resources, and energy efficiency resources.

(5) Deployment of ''smart'' technologies for metering, communications concerning grid operations and status, and distribution automation.

(6) Integration of ''smart'' appliances and consumer devices.

(7) Deployment and integration of renewable energy resources, both to the grid and on the customer side of the electric meter.

(8) Deployment and integration of advanced electricity storage and peak-sharing technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning.

(9) Provision to consumers of new information and control options.

(10) Continual environmental improvement in electricity production and distribution.

(11) Enhanced capacity and efficiency of electricity networks, reduction of line losses, and maintenance of power quality.

(b) SUPPORT.—The Secretary of Energy and the Federal Energy Regulatory Commission and other Federal agencies as appropriate shall undertake programs to support the development and demonstration of Smart Grid technologies and standards to maximize the achievement of these goals.

(c) BARRIERS.—It is further the policy of the United States that no State, State agency, or local government or instrumentality thereof should prohibit, or erect unreasonable barriers to, the deployment of smart grid technologies on an electric utility's distribution facilities, or unreasonably limit the services that may be provided using such technologies.

(d) INFORMATION.—It is further the policy of the United States that electricity purchasers are entitled to receive information about the varying value of electricity at different times and places, and that States shall not prohibit nor erect unreasonable barriers to the provision of such information flows to end users.

SEC. 9112. GRID MODERNIZATION COMMISSION.

(a) ESTABLISHMENT AND MISSION.—

(1) ESTABLISHMENT.—The President shall establish a Grid Modernization Commission composed of 9 members. Three members of the Commission shall be appointed by the President, and one each shall be appointed by the Speaker and Minority Leader of the United States House of Representatives and by the Majority Leader and Minority Leader of the United States Senate. Two members shall be appointed by the President from among persons recommended by an association representing

State utility regulatory commissioners. The President shall designate one Commissioner to serve as Chairperson.

(2) MISSION.—The mission of the Grid Modernization Commission shall be to facilitate the adoption of Smart Grid standards, technologies, and practices across the Nation's electricity grid to the point of general adoption and ongoing market support in the United States electric sector. The Commission shall be responsible for monitoring developments, encouraging progress toward common standards and protocols, identifying barriers and proposing solutions, coordinating with all Federal departments and agencies, and coordinating approaches on smart grid implementation with States and local governmental authorities.

(b) MEMBERSHIP.—The members appointed to the Commission shall, collectively, have qualifications in electric utility operations and infrastructure, digital information and control technologies, security, market development, finance and utility regulation, energy efficiency, demand response, renewable energy, and consumer protection.

(c) AUTHORITIES TO INTERVENE.—The Commission shall have the authority to intervene and represent itself

before the Federal Energy Regulatory Commission and other Federal and State agencies as it deems necessary to accomplish its mission.

(d) TERMS OF OFFICE.—The term of office of each Commissioner shall be 5 years, and any member may be reappointed for not more than one additional term of 5 years.

(e) TERMINATION.—Unless extended by Act of Congress, the Commission shall complete its work and cease its activities by January 1, 2020, or on such earlier date that the Commission determines that the proliferation, evolution, and adaptation of Smart Grid technologies no longer require Federal leadership and assistance.

(f) COMPENSATION OF MEMBERS.—Each member of the Commission who is not an officer or employee of the Federal Government shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level III of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which such member is engaged in the performance of the duties of the Commission. All members of the Commission who are officers or employees of the United States shall serve without compensation in addition to that received for their services as officers or employees of the United States.

(g) TRAVEL EXPENSES.—The members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of chapter 57 of title 5, United States Code, while away from their homes or regular places of business in the performance of services for the Commission.

(h) MEETINGS.—The Commission shall meet at the call of the Chairman. Commission meetings shall be open to the public, but as many as three Commissioners may meet in private without constituting a meeting requiring public access.

(i) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.—The Federal Advisory Committee Act (5 U.S.C. App. 1 et seq.) shall not apply to the Commission.

(j) OFFICES AND STAFF.—The Secretary of Energy shall provide the Commission with offices in the Department of Energy and shall make available to the Commission the expertise and staff resources of both the Office of Electricity Delivery and Energy Reliability and the Office of Energy Efficiency and Renewable Energy.

(k) DETAIL OF GOVERNMENT EMPLOYEES.—Any Federal Government employee may be detailed to the Commission without reimbursement, and such detail shall

be without interruption or loss of civil service status or privilege.

(l) EXECUTIVE DIRECTOR.—The Secretary of Energy shall appoint an officer of the Senior Executive Service to serve as Executive Director to the Commission.

(m) PROCUREMENT OF TEMPORARY AND INTERMITTENT SERVICES.—The Chairman of the Commission may procure temporary and intermittent services under section 3109(b) of title 5, United States Code, at rates for individuals which do not exceed the daily equivalent of the annual rate of basic pay prescribed for level V of the Executive Schedule under section 5316 of such title.

(n) INFORMATION FROM FEDERAL AGENCIES.—The Commission may secure directly from any Federal department or agency such information as the Commission considers necessary to carry out this part. Upon request of the Chairman of the Commission, the head of such department or agency shall furnish such information to the Commission. The Commission shall maintain the same level of confidentiality for such information made available under this subsection as is required of the head of the department or agency from which the information was obtained.

(o) POSTAL SERVICES.—The Commission may use the United States mails in the same manner and under

the same conditions as other departments and agencies of the Federal Government.

SEC. 9113. GRID ASSESSMENT AND REPORT.

(a) IN GENERAL.—The Grid Modernization Commission shall undertake, and update on a biannual basis, an assessment of the progress toward modernizing the electric system from generation to ultimate electricity consumption, including implementation of ''smart grid'' technologies. The Commission shall prepare this assessment with input from stakeholders including but not limited to electric utilities, other Federal offices, States, companies involved in developing related technologies, the National Electric Reliability Organization recognized by the Federal Energy Regulatory Commission, electricity customers, and persons with special related expertise. The assessment shall include each of the following:

(1) An updated inventory of existing smart grid systems.

(2) A description of the condition of existing grid infrastructure and procedures for determining the need for new infrastructure;

(3) A description of any plans of States, utilities, or others to introduce smart grid systems and technologies.

(4) An assessment of constraints to deployment of smart grid technology and most important opportunities for doing so, including the readiness or lack thereof of enabling technologies.

(5) An assessment of remaining potential benefits resulting from introduction of smart grid systems, including benefits related to demand-side efficiencies, improved reliability, improved security, reduced prices, and improved integration of renewable resources.

(6) Recommendations for legislative or regulatory changes to remove barriers to and create incentives for smart grid system implementation and to meet the policy goals of this title.

(7) An estimate of the potential costs required for modernization of the electricity grid, with specificity relative to geographic areas and components of the grid, together with an assessment of whether the necessary funds would be available to meet such costs, and the sources of such funds.

(8) An assessment of ancillary benefits to other economic sectors or activities beyond the electricity sector, such as potential broadband service over power lines.

(9) An assessment of technologies, activities or opportunities in energy end use devices, customer premises, buildings, and power generation and storage devices that could accelerate or expand the impact and effectiveness of smart grid advances.

(10) An assessment of potential risks to personal privacy, corporate confidentiality, and grid security from the spread of smart grid technologies, and if so what additional measures and policies are needed to assure privacy and information protection for electric customers and grid partners, and cybersecurity protection for extended grid systems.

(11) An assessment of the readiness of market forces to drive further implementation and evolution of ''smart grid'' technologies in the absence of government leadership.

(12) Recommendations to the Secretary of Energy and other Federal officers on actions they should take to assist.

The Commission may request electric utilities to provide information relating to deployment and planned deployment of smart grid systems and technologies. At the request of the utility, the Commission shall maintain the confidentiality of utility-specific or specific security-related information. The Commission shall provide opportunities

for input and comment by interested persons, including representatives of electricity consumers, Smart Grid technology service providers, the electric utility industry, and State and local government.

(b) STATE AND REGIONAL ASSESSMENT AND REPORT.—States or groups of States are encouraged to participate in the development of State or region-specific components of the assessment and report under subsection (a). Such State-specific components may address the assessment and reporting criteria above but also may include but not be limited to any of the following:

(1) Assessment of types of security threats to electricity delivery.

(2) Energy assurance and response plans to address security threats.

(3) Plans for introduction of smart grid systems and technologies over 3, 5, and 10 year planning horizons.

The Commission may make grants to States that begin development of a State or Regional Plan within 180 days after the enactment of this Act to offset up to one-half of the costs required to develop such plans.

(c) SMART GRID REPORT.—Based on its completed initial assessment under subsection (a), the Commission shall submit a report to Congress and the President not

later than 2 years after the date of enactment of this Act and subsequent reports every 2 years thereafter. Each report shall include recommendations to the President and to the Congress on actions necessary to modernize the electricity grid. The Commission shall annually update and revise its report and as well as conduct ongoing monitoring and evaluation activities.

(d) CONSULTATION AND PUBLIC INPUT.—The Commission shall consult with the Secretary of Energy and the Federal Energy Regulatory Commission on technical issues associated with advanced electricity grid technologies. The Commission shall to the extent feasible provide for broad and frequent input from stakeholders and the general public.

(e) INTEROPERABILITY PROTOCOLS AND MODEL STANDARDS FOR INFORMATION MANAGEMENT.—

(1) IN GENERAL.—The Grid Modernization Commission shall work with the National Institute of Standards and Technology, as well as with Smart Grid stakeholders, to develop protocols and model standards for information management to achieve interoperability of smart grid devices and systems. Such protocols and model standards shall be flexible, uniform, and technology-neutral, including but not limited to technologies for communication of Smart

Grid information. Such protocols and standards shall further align policy, business, and technology approaches in a manner that—

(A) enables all electric resources, including demand-side resources, storage devices, renewable generation resources, other distributed generation resources, to be interconnected to and function compatibly with the grid, on an automated basis to the extent appropriate;

(B) enables electricity-consuming equipment to communicate with and contribute to an efficient, reliable electricity network, on an automated basis to the extent appropriate;

(C) enhances two-way communication between Smart-Grid enabled devices connected to the electric power grid;

(D) supports the ability of Smart-Grid enabled devices to exchange information, regardless of the operating system, programming languages, or media of communication utilized by such devices;

(E) enables the operators of utilities and regional system operators of the grid to automatically detect anomalies and respond to iso-

late areas affected in order to maintain reliability; and

(F) enables State regulators and individual utility managers to develop rate structures and regulations incorporating Smart Grid capabilities for the benefit of consumers and the electricity system, accommodating increased demand response and distributed generation.

(2) MEETINGS AND WORKING GROUP FOR DEVELOPMENT OF INTEROPERABILITY PROTOCOLS AND MODEL STANDARDS.—Within 60 days after the enactment of this section, the Director of the National Institute of Standards and Technology shall convene meetings of experts and stakeholders to discuss and achieve such standards, for the purpose of forming an ongoing voluntary working group. Upon the creation of the Grid Modernization Commission, the Commission shall assume the role of convening further such meetings and collaborating with such a working group to continue progress towards such standards, with continued technical support from the Director of the National Institute of Standards and Technology. The Gridwise Architecture Council, the International Electrical and Electronics Engineers, the National Electric Reliability Organization recog-

nized by the Federal Energy Regulatory Commission, and National Electrical Manufacturer's Association shall be among stakeholders invited to such meetings, together with other groups of manufacturers of equipment that could usefully be Smart-Grid capable, groups of customers, State and Federal regulators, electric utility groups, communications and computer experts, and other Federal offices and agencies that have roles related to security, communications, computerization, and reliability of the electricity system.

(3) REPORTING AND ADOPTION OF PROTOCOLS AND MODEL STANDARDS.—

(A) REPORTING REQUIREMENTS.—The Director of the National Institute of Standards and Technology and the Grid Modernization Commission, after it is created, shall report annually to Congress on the progress of creating such protocols and model standards.

(B) ADOPTION.—The Commission shall review such protocols and standards as are recommended by the working group and, upon finding that they meet the goals stated in paragraph (1), shall publish such finding, and shall

encourage utilities, regulators, and other stakeholders to adopt to such standards.

(C) PUBLICATION.—Except to the extent they may allow or create threats to grid reliability and security, such standards and protocols shall be made publicly available for general use by manufacturers, utilities, regulators, and others.

(D) GOAL.—The intent of Congress is that such protocols and model standards will be initially developed, reviewed, and approved for general adoption, subject to further improvements, within 3 years of the enactment of this section.

(f) AUTHORIZATION.—There are authorized to be appropriated for the purposes of this section—

(1) $5,000,000 to the National Institute of Standards and Technology for each of fiscal years 2009 through 2012, and such sums as may thereafter be necessary to support the purposes of this section; and

(2) $20,000,000 to the Secretary of Energy to support the operations of the Grid Modernization Commission for each of fiscal years 2009 through 2020.

SEC. 9114. FEDERAL MATCHING FUND FOR SMART GRID INVESTMENT COSTS.

(a) MATCHING FUND.—The Secretary of Energy shall establish a Smart Grid Investment Matching Grant Program to provide reimbursement of one-fourth of qualifying Smart Grid investments.

(b) QUALIFYING INVESTMENTS.—Qualifying Smart Grid investments may include any of the following made on or after the date of enactment of this Act:

(1) In the case of appliances covered for purposes of establishing energy conservation standards under part B of title III of the Energy Policy and Conservation Act of 1975 (42 U.S.C. 6291 et seq.), the documented expenditures incurred by a manufacturer of such appliances associated with purchasing or designing, creating the ability to manufacture, and manufacturing and installing for one calendar year, internal devices that allow the appliance to engage in Smart Grid functions.

(2) In the case of specialized electricity-using equipment, including motors and drivers, installed in industrial or commercial applications, the documented expenditures incurred by its owner or its manufacturer of installing devices or modifying that equipment to engage in Smart Grid functions.

(3) In the case of transmission and distribution equipment fitted with monitoring and communications devices to enable smart grid functions, the documented expenditures incurred by the electric utility to purchase and install such monitoring and communications devices.

(4) In the case of metering devices, sensors, control devices, and other devices integrated with and attached to an electric utility system that are capable of engaging in Smart Grid functions, the documented expenditures incurred by the electric utility and its customers to purchase and install such devices.

(5) In the case of software that enables devices or computers to engage in Smart Grid functions, the documented purchase costs of the software.

(6) In the case of entities that operate or coordinate operations of regional electric grids, the documented expenditures for purchasing and installing such equipment that allows Smart Grid functions to operate and be combined or coordinated among multiple electric utilities and between that region and other regions.

(7) In the case of persons or entities other than electric utilities owning and operating a distributed

electricity generator, the documented expenditures of enabling that generator to be monitored, controlled, or otherwise integrated into grid operations and electricity flows on the grid utilizing Smart Grid functions.

(8) In the case of electric or hybrid-electric vehicles, the documented expenses for devices that allow the vehicle to engage in Smart Grid functions.

(9) The documented expenditures related to purchasing and implementing Smart Grid functions in such other cases as the Secretary of Energy shall identify. In making such grants, the Secretary shall seek to reward innovation and early adaptation, even if success is not complete, rather than deployment of proven and commercially viable technologies.

(c) INVESTMENTS NOT INCLUDED.—Qualifying Smart Grid investments do not include any of the following:

(1) Expenditures for electricity generation, transmission, or distribution infrastructure or equipment not directly related to enabling Smart Grid functions.

(2) After the effective date of a standard under paragraph (21) of section 111(d) of the Public Utility Regulatory Policies Act of 1978 (relating to

Smart Grid information), an investment that is not in compliance with such standard.

(3) After the development and publication by the Commission of protocols and model standards for interoperability of smart grid devices and technologies, an investment that fails to incorporate any of such protocols or model standards.

(4) Expenditures for physical interconnection of generators or other devices to the grid except those that are directly related to enabling Smart Grid functions.

(5) Expenditures for ongoing salaries, benefits, or personnel costs not incurred in the initial installation, training, or start up of smart grid functions.

(6) Expenditures for travel, lodging, meals or other personal costs.

(7) Ongoing or routine operation, billing, customer relations, security, and maintenance expenditures.

(8) Such other expenditures that the Secretary of Energy determines not to be Qualifying Smart Grid Investments by reason of the lack of the ability to perform smart grid functions or lack of direct relationship to smart grid functions.

(d) SMART GRID FUNCTIONS.—The term ''smart grid functions'' means any of the following:

(1) The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time of use, nature of use, storage, or other information relevant to device, grid, or utility operations, to or from or by means of the electric utility system, through one or a combination of devices and technologies.

(2) The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time or use, nature of use, storage, or other information relevant to device, grid, or utility operations to or from a computer or other control device.

(3) The ability to measure or monitor electricity use as a function of time of day, power quality characteristics such as voltage level, current, cycles per second, or source or type of generation and to store, synthesize or report that information by digital means.

(4) The ability to sense and localize disruptions or changes in power flows on the grid and communicate such information instantaneously and automatically for purposes of enabling automatic protec-

tive responses to sustain reliability and security of grid operations.

(5) The ability to detect, prevent, communicate with regard to, respond to, or recover from system security threats, including cyber-security threats and terrorism, using digital information, media, and devices.

(6) The ability of any appliance or machine to respond to such signals, measurements, or communications automatically or in a manner programmed by its owner or operator without independent human intervention.

(7) The ability to use digital information to operate functionalities on the electric utility grid that were previously electro-mechanical or manual.

(8) The ability to use digital controls to manage and modify electricity demand, enable congestion management, assist in voltage control, provide operating reserves, and provide frequency regulation.

(9) Such other functions as the Secretary of Energy may identify as being necessary or useful to the operation of a Smart Grid.

(e) OFFICE.—The Secretary of Energy shall—

(1) establish an Office to administer the Smart Grid Investment Grant Program, assuring that ex-

pert resources from the Commission on Grid Modernization, the Office of Energy Distribution and Electricity Reliability, and the Office of Energy Efficiency and Renewable Energy are fully available to advise on its administration and actions;

(2) appoint a Senior Executive Service officer to direct the Office, together with such personnel as are required to administer the Smart Grid Investment Grant program;

(3) establish and publish in the Federal Register, within 180 days after the enactment of this Act procedures by which applicants who have made qualifying Smart Grid investments can seek and obtain reimbursement of one-fourth of their documented expenditures;

(4) establish procedures to assure that there is no duplication or multiple reimbursement for the same investment or costs, that the reimbursement goes to the party making the actual expenditures for Qualifying Smart Grid Investments, and that the grants made have significant effect in encouraging and facilitating the development of a smart grid.;

(5) maintain public records of reimbursements made, recipients, and qualifying Smart Grid investments which have received reimbursements;

(6) establish procedures to provide, in cases deemed by the Secretary to be warranted, advance payment of moneys up to the full amount of the projected eventual reimbursement, to creditworthy applicants whose ability to make Qualifying Smart Grid Investments may be hindered by lack of initial capital, in lieu of any later reimbursement for which that applicant qualifies, and subject to full return of the advance payment in the event that the Qualifying Smart Grid investment is not made;

(7) establish procedures to provide, in the event appropriated moneys in any year are insufficient to provide reimbursements for qualifying Smart Grid investments, that such reimbursement would be made in the next fiscal year or whenever funds are again sufficient, with the condition that the insufficiency of funds to reimburse Qualifying Smart Grid Investments from moneys appropriated for that purpose does not create a Federal obligation to that applicant; and

(8) have and exercise the discretion to deny grants for investments that do not qualify in the reasonable judgement of the Secretary.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy the sums of—

(1) $10,000,000 for each of fiscal years 2008 through 2012 to provide for administration of the Smart Grid Investment Matching Fund; and

(2) $250,000,000 for fiscal year 2008 and $500,000,000 for each of fiscal years 2009 through 2012 to provide reimbursements of one-fourth of Qualifying Smart Grid Investments.

SEC. 9115. SMART GRID TECHNOLOGY DEPLOYMENT.

(a) POWER GRID DIGITAL INFORMATION TECHNOLOGY.—The Secretary of Energy shall conduct programs to—

(1) deploy advanced techniques for measuring peak load reductions and energy efficiency savings on customer premises from smart metering, demand response, distributed generation and electricity storage systems;

(2) implement means for demand response, distributed generation, and storage to provide ancillary services;

(3) advance the use of wide-area measurement networks including data mining, visualization, ad-

vanced computing, and secure and dependable communications in a highly distributed environment; and

(4) implement reliability technologies in a grid control room environment against a representative set of local outage and wide area blackout scenarios.

(b) SMART GRID REGIONAL DEMONSTRATION PROGRAM.—

(1) ESTABLISHMENT OF PROGRAM.—The Secretary of Energy shall establish a program of demonstration projects specifically focused on advanced technologies for power grid sensing, communications, analysis, and power flow control, including the integration of demand-side resources into grid management. The goals of this program shall be to—

(A) demonstrate the potential benefits of concentrated investments in advanced grid technologies on a regional grid;

(B) facilitate the commercial transition from the current power transmission and distribution system technologies to advanced technologies; and

(C) facilitate the integration of advanced technologies in existing electric networks to improve system performance, power flow control and reliability.

(2) DEMONSTRATION PROJECTS.—The Secretary shall establish Smart Grid demonstration projects for not more than 5 electric utility systems of various types and sizes under this subsection. Such demonstration projects shall be undertaken in cooperation with the electric utility. Under such demonstration projects, financial assistance shall be available to cover not more than one-half of the qualifying Smart Grid technology investments made by the electric utility. Any project receiving financial assistance under this section shall not be eligible to receive financial assistance (including loan guarantees) under any other Federal program.

(c) AUTHORIZATION.—

(1) POWER GRID DIGITAL INFORMATION TECHNOLOGY PROGRAMS.—There are authorized to be appropriated to carry out subsection (a) such sums as are necessary for each of the fiscal years 2008 through 2012.

(2) SMART GRID REGIONAL DEMONSTRATION PROGRAM.—There is authorized to be appropriated to carry out subsection (b) $20,000,000 for each of the fiscal years 2008 through 2012.

SEC. 9116. SMART GRID INFORMATION REQUIREMENTS.

(a) FINDINGS.—Congress finds that Smart Grid technologies will require, for their optimum use by electricity consumers, that such consumers have access to information on prices, use, and other factors in possession of their utilities or electricity suppliers, in order to assist the customers in optimizing their electricity use and limiting the associated environmental impacts.

(b) DEVELOPMENT OF RULES.—The Commission on Grid Modernization shall within one year of its initial meeting develop and declare a standard for the collection, presentation and delivery of information to electricity purchasers as required by the standard under section 111(d)(21) of the Public Utility Regulatory Policies Act of 1978. Such standard shall provide purchasers with different access options for such information. Such standard shall be developed with input from the Secretary of Energy, the Federal Energy Regulatory Commission, the Administrator of the Environmental Protection Agency, States, and stakeholders representing, but not limited to, electric utilities, energy efficiency and demand response experts, environmental organizations and consumer organizations.

(c) APPLICATION OF SMART GRID INFORMATION STANDARD TO FEDERAL ENTITIES AND WHOLESALE MARKETS.—Within 60 days of the declaration of the

standard under subsection (b), the Federal Energy Regulatory Commission shall propose a rule under which all public utilities, with respect to federally jurisdictional sales for resale of electricity in interstate commerce, and all approved regional transmission organizations subject to its jurisdiction, will implement those elements of the Smart Grid information standard developed pursuant to this section that the Commission determines to be relevant and to add value for purchasers of wholesale power or those utilizing interstate transmission. The Tennessee Valley Authority, Bonneville Power Administration, and Federal power administrations shall, within 90 days of the adoption of a final rule by the Commission, adopt it for their own sales or transmission of electricity.

SEC. 9117. STATE CONSIDERATION OF INCENTIVES FOR SMART GRID.

(a) CONSIDERATION OF ADDITIONAL STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end:

"(16) UTILITY INVESTMENT IN SMART GRID INVESTMENTS.—Each electric utility shall prior to undertaking investments in non-advanced grid technologies demonstrate that alternative investments in advanced grid technologies have been considered, in-

cluding from a standpoint of cost-effectiveness, where such cost-effectiveness considers costs and benefits on a life-cycle basis.

"(17) UTILITY COST OF SMART GRID INVESTMENTS.—Each electric utility shall be permitted to—

"(A) recover from ratepayers the capital and operating expenditures and other costs of the utility for qualified smart grid system, including a reasonable rate of return on the capital expenditures of the utility for a qualified smart grid system, and

"(B) recover in a timely manner the remaining book-value costs of equipment rendered obsolete by the deployment of a qualified smart grid system, based on the remaining depreciable life of the obsolete equipment.

"(18) RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS.—

"(A) IN GENERAL.—The rates allowed to be charged by any electric utility shall—

"(i) align utility incentives with the delivery of cost-effective energy efficiency; and

"(ii) promote energy efficiency investments.

"(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

"(i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

"(ii) providing utility incentives for the successful management of energy efficiency programs;

"(iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;

"(iv) adopting rate designs that encourage energy efficiency for each customer class;

"(v) allowing timely recovery of energy efficiency-related costs; and

"(vi) offering home energy audits, publicizing the financial and environmental benefits associated with making home en-

ergy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make home energy efficiency improvements more affordable.

"(19) SMART GRID INFORMATION.—

"(A) STANDARD.—All electricity purchasers shall be provided direct access, both in written and electronic machine-readable form, to information from their electricity provider as provided in subparagraph (B).

"(B) INFORMATION.—Information provided under this section shall conform to the standardized rules issued by the Commission on Grid Modernization under section 9116(b) of the Smart Grid Facilitation Act of 2007 and shall include:

"(i) PRICES.—Purchasers and other interested persons shall be provided with information on:

"(I) Time-based electricity prices in the wholesale electricity market; and

"(II) Time-based electricity retail prices or rates that are available to the purchasers.

"(ii) USAGE.—Purchasers shall be provided with the number of electricity units, expressed in kwh, purchased by them

"(iii) INTERVALS AND PROJECTIONS.—Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information, where available, and shall include a day-ahead projection of such price information to the extent available.

"(iv) SOURCES.—Purchasers and other interested person shall be provided with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions and criteria pollutants associated each type of generation, for intervals during which such information is available on a cost-effective basis, but not less than monthly.

"(C) ACCESS.—Purchasers shall be able to access their own information at any time through the internet and on other means of communication elected by that utility for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.".

(b) RECONSIDERATION OF CERTAIN STANDARDS.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding the following at the end thereof:

"(g) RECONSIDERATION OF PRIOR TIME-OF-DAY AND COMMUNICATION STANDARDS.—Not later than 1 year after the enactment of this subsection, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence a reconsideration under section 111, or set a hearing date for reconsideration, with respect to the standards established by paragraphs (3) and (14) of section 111(d) to take into account Smart Grid technologies. Not later than 2 years after the date of the enactment of this subsection, each State regulatory authority (with respect to each electric utility for which

it has ratemaking authority), and each nonregulated electric utility, shall complete the reconsideration, and shall make the determination, referred to in section 111 with respect to the standards established by paragraphs (3) and (14) of section 111(d).''.

(c) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding the following at the end thereof:

''(6)(A) Not later than 1 year after the enactment of this paragraph, but not less than 3 years after the conclusion of any prior review of such standards, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standards established by paragraphs (16) through (18) of section 111(d). Not later than 6 months after the promulgation of rules by the Commission on Grid Modernization under section 9116(b) of the Smart Grid Facilitation Act of 2007, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section

111, or set a hearing date for consideration, with respect to the standard established by paragraph (19) of section 111(d).

"(B) Not later than 2 years after the date of the enactment of the this paragraph, but not less than 4 years after the conclusion of any prior review of such standard, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by paragraphs (16) through (18) of section 111(d). Not later than 18 months after the promulgation of rules by the Commission on Grid Modernization under section 9116(b) of the Smart Grid Facilitation Act of 2007 each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by paragraph (19) of section 111(d).".

(2) FAILURE TO COMPLY.—Section 112(c) of such Act is amended by adding the following at the

end: ''In the case of the standards established by paragraphs (16) through (19) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs.''.

(3) PRIOR STATE ACTIONS.—Section 112(d) of such Act is amended by inserting ''and paragraphs (16) through (18)'' before ''of section 111(d)''.

SEC. 9118. DOE STUDY OF SECURITY ATTRIBUTES OF SMART GRID SYSTEMS.

(a) DOE STUDY.—The Secretary of Energy shall, within 6 months after the Grid Modernization Commission completes its first biennial assessment and report under section 9113 of this Act, submit a report to Congress that provides a quantitative assessment and determination of the existing and potential impacts of the deployment of Smart Grid systems on improving the security of the Nation's electricity infrastructure and operating capability. The report shall include but not be limited to specific recommendations on each of the following:

(1) How smart grid systems can help in making the Nation's electricity system less vulnerable to disruptions due to intentional acts against the system.

(2) How smart grid systems can help in restoring the integrity of the Nation's electricity system subsequent to disruptions.

(3) How smart grid systems can facilitate emergency communications and control of the Nation's electricity system during times of localized or nationwide emergency.

(b) CONSULTATION.—The Secretary shall consult with other Federal agencies in the development of the report under this section, including but not limited to the Secretary of Homeland Security, the Federal Energy Regulatory Commission and the Electric Reliability Organization certified by the Commission under section 215(c) of the Federal Power Act (16 U.S.C. 824 o) as added by section 1211 of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 941)

(c) FUNDING.—The Secretary shall fund demonstration projects for the purpose of demonstrating the findings of the report under this section. Not more than $10,000,000 are authorized to be appropriated for such projects.

PART 2—DEMAND RESPONSE

SEC. 9121. ELECTRICITY SECTOR DEMAND RESPONSE.

(a) AMENDMENT OF NECPA.—Title V of the National Energy Conservation Policy Act (42 U.S.C. 8201

and following) is amended by adding the following new part at the end thereof:

"PART 5—PEAK DEMAND REDUCTION

"SEC. 571. DEFINITIONS.

''(a) SECRETARY.—As used in this part, the term 'Secretary' means the Secretary of Energy.

''(b) FEDERAL AGENCY.—As used in this part, the term 'Federal agency' has the same meaning as provided by section 551 of this Act.

"SEC. 572. FEDERAL ELECTRICITY PEAK DEMAND REDUCTION STANDARD.

''(a) 2008 AGENCY ANNUAL ENERGY PLAN.—Each Federal agency shall prepare, and include in its annual report under section 548(a) of this Act, each of the following:

''(1) A determination of the agency's aggregate electricity demand during the system peak hours for the utilities providing electricity service to its facilities during 2006 and 2007.

''(2) A forecast for each year through 2018 of the projected growth in such peak demand in light of projected growth of facilities, staff, activities, electric intensity of activities, and other relevant factors.

''(b) FEDERAL ELECTRICITY PEAK DEMAND REDUCTION STANDARD.—

1 "(1) IN GENERAL.—Except as provided in para-
2 graph (2), for calendar year 2009 and each calendar
3 year thereafter, each Federal agency shall reduce its
4 aggregate peak electricity demand or make such
5 amounts of electricity demand available in the form
6 of demand response, by the percentage amount spec-
7 ified in the Federal Electricity Peak Demand Reduc-
8 tion Standard set forth in the following table:

"Federal Electricity Peak Demand Reduction Standard

Calendar Year	Reduction of Peak Demand Forecast
2009	2 percent of the peak demand forecast for calendar year 2009
2010	4 percent of the peak demand forecast for calendar year 2010
2011	6 percent of the peak demand forecast for calendar year 2011
2012	8 percent of the peak demand forecast for calendar year 2012
2013	10 percent of the peak demand forecast for calendar year 2013
2014	12 percent of the peak demand forecast for calendar year 2014
2015	14 percent of the peak demand forecast for calendar year 2015
2016	16 percent of the peak demand forecast for calendar year 2016
2017	18 percent of the peak demand forecast for calendar year 2017
2018 and each calendar year thereafter.	20 percent of the peak demand forecast for the applicable calendar year

9 In the table above, the term 'forecast' refers to the
10 forecast set forth in the 2008 report under section
11 548(a) of this Act as updated in accordance with
12 subsection in (c)(1)(C).

13 "(2) EXCEPTION.—The standard under this
14 subsection shall not apply to any activity of a Fed-

eral agency relating to defense or national security if compliance with the standard would have an adverse mission impact on the activity, as determined by the Secretary of Defense or the Secretary of Homeland Security.

''(c) IMPLEMENTATION OF STANDARD.—

''(1) IN GENERAL.—Not later than January 1, 2010, and each calendar year thereafter, each Federal agency shall include in the annual energy plan of the Federal agency each of the following:

''(A) An assessment of whether the Federal agency was in compliance with the standard under subsection (b) for the preceding year.

''(B) A description of—

''(i) the method by which the Federal agency proposes to comply with the standard for the following calendar year; and

''(ii) the factors relied on by the head of the Federal agency in determining whether to participate in demand response programs offered by an electric utility or others during the preceding calendar year; and

''(iii) if the Federal agency did not participate in a demand response program

offered by each utility providing electric service to facilities of the agency during the preceding calendar year, an explanation for the decision by the head of the Federal agency to not participate.

"(C) An update of the agency's prior forecast for the remaining years in the period until 2018.

"(2) AVAILABILITY TO PUBLIC.—Not later than January 1, 2010, and each calendar year thereafter, the head of each Federal agency shall make available to the public a description of each provision included in the annual energy plan of the Federal agency described in subparagraphs (A) through (C) of paragraph (1).

"(d) MODIFICATIONS TO FEDERAL ENERGY MANAGEMENT PROGRAM.—The Secretary shall make any modification to the Federal Energy Management Program of the Department of Energy that the Secretary determines to be necessary to—

"(1) incorporate the standard established under subsection (b) into the Federal Energy Management Program;

"(2) assist any Federal agency to comply with the standard established under subsection (b)

through any appropriate means, including conducting 1 or more demonstration projects at Federal facilities.

"(e) ANNUAL REPORT.—Not later than March 1, 2010, and annually thereafter, the Secretary shall submit to Congress a report that evaluates the success of agencies in meeting the standard established under subsection (b) and the success of the Federal Energy Management Program in assisting agencies with meeting the standard, and the costs and benefits of such participation.

"SEC. 573. NATIONAL ACTION PLAN FOR DEMAND RESPONSE.

"(a) NATIONAL ASSESSMENT AND REPORT.—The Grid Modernization Commission established under subtitle A of title I of the Smart Grid Facilitation Act of 2007 shall conduct a National Assessment of Demand Response. The Commission shall, within 18 months of the date on which the full Commission first meets, submit a Report to Congress that includes each of the following:

"(1) Estimation of nationwide demand response potential in 5 and 10 year horizons, including data on a State-by-State basis, and a methodology for updates of such estimates on an annual basis.

"(2) Estimation of how much of this potential can be achieved within 5 and 10 years after the en-

actment of this Act accompanied by specific policy recommendations that if implemented can achieve the estimated potential. Such recommendations shall include options for funding and/or incentives for the development of demand response resources. The Commission shall seek to take advantage of pre-existing research and ongoing work, and shall assume that there is no duplication of effort. The Commission shall further note any barriers to demand response programs that are flexible , non-discriminatory, and fairly compensatory for the services and benefits made available and shall provide recommendations for overcoming such barriers.

''(b) NATIONAL ACTION PLAN ON DEMAND RESPONSE.—The Grid Modernization Commission shall further develop and implement a National Action Plan on Demand Response. Such Plan shall be completed within one year after the completion of the National Assessment of Demand Response, and shall meet each of the following objectives:

''(1) Provision of adequate technical assistance to States to allow them to maximize the amount of demand response resources that can be developed and deployed.

"(2) Implementation of a national communications program that includes broad-based customer education and support.

"(3) Development and dissemination of tools, information and other support mechanisms for use by customers, states, utilities and demand response providers.

"(c) AUTHORIZATION.—There are authorized to be appropriated to carry out this section not more than $10,000,000 for each of the fiscal years 2008 and 2009 and $20,000,000 for each of the fiscal years 2010 through 2020.

"SEC. 574. REPORT ON ENVIRONMENTAL ATTRIBUTES AND IMPACTS OF DEMAND RESPONSE AND SMART GRID SYSTEMS.

"(a) REPORT.—The Administrator of the Environmental Protection Agency shall solicit public input and, within 6 months after completion of the National Assessment of Demand Response required by section 573, submit a report to Congress that addresses each of the following:

"(1) A quantitative assessment and determination of the existing and potential impacts of demand response and 'smart grid' systems on air emissions

and air quality, including but not limited to carbon dioxide, oxides of nitrogen and oxides of sulfur.

"(2) An assessment and determination of the existing and potential impacts of demand response and 'smart grid' systems on environmental parameters other than emissions and air quality, including but not limited to:

"(A) Land use.

"(B) Water use.

"(C) Use of renewable energy.

"(D) Effect on energy sources other than electricity.

"(3) A detailed plan for how Energy Efficiency and Clean Energy programs administered by the Agency, including the Energy Star Program, will incorporate and encourage end-use efficiency, demand response and 'smart grid' systems and technologies, including but not limited to each of the following:

"(A) Requirements that appliances and other equipment are capable of manually and automatically receiving and acting upon pricing and control information and or instructions provided by the customer, a load serving entity or a third-party designated by the customer.

"(B) Requirements for time-based valuation of kilowatt hour reductions in planning and evaluation of energy efficiency programs.

"(C) Education and communication, including to state energy officials and state regulators, that build awareness of demand response and smart grid systems and technologies and their existing and potential relationship to such Agency programs.

"(b) FUNDING.—There are authorized to be appropriated to carry out this section such sums as may be necessary for fiscal year 2010, to remain available until expended.".

(b) TABLE OF CONTENTS.—The table of contents for such Act is amended by adding the following after the items relating to part 4 of title V:

"PART 5—PEAK DEMAND REDUCTION

"Sec. 571. Definitions.
"Sec. 572. Federal Electricity Peak Demand Reduction Standard.
"Sec. 573. National action plan for demand response.
"Sec. 574. Report on environmental attributes and impacts of demand response and smart grid systems.".

Subtitle C—Loan Guarantees

SEC. 9201. AMOUNT OF LOANS GUARANTEED.

Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended—

(1) by amending subsection (c) to read as follows:

"(c) AMOUNT.—

"(1) PERCENTAGE OF PROJECT COST.—A guarantee by the Secretary shall not exceed an amount equal to 80 percent of the project cost of the facility that is the subject of the guarantee, as estimated at the time at which the guarantee is issued, and shall be no less than the minimum amount determined by the Secretary to be likely to attract nonguaranteed investment adequate to capitalize the project.

"(2) PERCENTAGE OF LOAN.—Subject to paragraph (1), the Secretary may guarantee up to 100 percent of any loan or other debt obligation of the borrower to fund an eligible project, and may not issue a rule or regulation establishing a lower percentage limit."; and

(2) by adding at the end the following new subsection:

"(k) WAGES.—No loan guarantee shall be made under this title unless the borrower has provided to the Secretary reasonable assurances that all laborers and mechanics employed by contractors or subcontractors in the performance of construction work financed in whole or in part with the loan will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with

subchapter IV of chapter 31 of title 40, United States Code (commonly referred to as the Davis-Bacon Act).''.

SEC. 9202. EXCLUSION OF CATEGORIES.

Section 1704 of the Energy Policy Act of 2005 (42 U.S.C. 16514) is amended by adding at the end the following new subsection:

''(c) EXCLUSION OF CATEGORIES.—No appropriation authorized pursuant to this section may exclude any category of eligible project described in section 1703.''.

Subtitle D—Renewable Fuel Infrastructure and International Cooperation

PART 1—RENEWABLE FUEL INFRASTRUCTURE

SEC. 9301. RENEWABLE FUEL INFRASTRUCTURE DEVELOPMENT.

(a) DEFINITION.—For purposes of this subtitle—

(1) the term ''renewable fuel'' means E85 biofuel, or B20;

(2) the term ''biofuel'' means fuel produced entirely from biological material and determined by the Department of Energy and the Environmental Protection Agency to be commercially viable;

(3) the term ''B20'' means a mixture of biodiesel and diesel fuel meeting the standard established by the American Society for Testing and Ma-

terials or under section 211(u) of the Clean Air Act for fuel containing 20 percent biodiesel;

(4) the term ''E85'' means a fuel blend containing 85 percent denatured ethanol and 15 percent gasoline by volume;

(5) the term ''flexible-fuel vehicle'' means any motor vehicle warranted by the manufacturer of the vehicle as capable of operating on gasoline or diesel fuel and on—

(A) E85; or

(B) B20; and

(6) the term ''motor vehicle'' means, as defined in regulations promulgated by the Administrator of the Environmental Protection Agency that are in effect on the date of enactment of this Act—

(A) a light-duty truck;

(B) a light-duty vehicle; or

(C) medium-duty passenger vehicle,

that is designed to be propelled by gasoline or diesel fuel.

(b) INFRASTRUCTURE DEVELOPMENT GRANTS.—The Secretary of Energy shall establish a program for making grants for providing assistance to retail and wholesale motor fuel dealers or other entities for the installation, replacement, or conversion of motor fuel storage

and dispensing infrastructure to be used exclusively to store and dispense renewable fuel. Such infrastructure may include equipment used in the blending, distribution, and transport of such fuels.

(c) RETAIL TECHNICAL AND MARKETING ASSISTANCE.—The Secretary of Energy shall enter into contracts with entities with demonstrated experience in assisting retail fueling stations in installing refueling systems and marketing renewable fuels nationally, for the provision of technical and marketing assistance to recipients of grants under this section. Such assistance shall include—

(1) technical advice for compliance with applicable Federal and State environmental requirements;

(2) help in identifying supply sources and securing long-term contracts; and

(3) provision of public outreach, education, and labeling materials.

(d) ALLOCATION.—The Secretary of Energy may reserve funds appropriated for carrying out this section to support renewable fuels infrastructure development projects with a cost of greater than $1,000,000, that are of national significance. The Secretary shall reserve funds appropriated for the renewable fuels infrastructure development grant program for technical and marketing assistance described in subsection (c).

(e) SELECTION CRITERIA.—Not later than 12 months after the date of enactment of this Act, the Secretary shall establish criteria for evaluating applications for grants under this section that will maximize the availability and use of renewable fuel, and that will ensure that renewable fuel is available across the country. Such criteria shall provide for—

(1) consideration of the public demand for each renewable fuel in a particular geographic area based on State registration records showing the number of flexible-fuel vehicles;

(2) consideration of the opportunity to create or expand corridors of renewable fuel stations along interstate or State highways;

(3) consideration of the experience of each applicant with previous, similar projects;

(4) consideration of population, number of flexible-fuel vehicles, number of retail fuel outlets, and saturation of flexible-fuel vehicles; and

(5) priority consideration to applications that—

(A) are most likely to maximize displacement of petroleum consumption, measured as a total quantity and a percentage;

(B) are best able to incorporate existing infrastructure while maximizing, to the extent practicable, the use of renewable fuels; and

(C) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed project and the greatest likelihood that the project will be maintained or expanded after Federal assistance under this section is completed.

(f) COMBINED APPLICATIONS.—States and local government entities and nonprofit entities may apply for assistance under this section on behalf of a group of retailers within a certain geographic area, or to carry out regional or multistate deployment projects. Any such application shall certify the availability and details of a program to match the Federal grant as required under subsection (g) and list the retail locations that would receive the funds.

(g) LIMITATIONS.—Assistance provided under this section shall not exceed—

(1) 33 percent of the estimated cost of the installation, replacement, or conversion of motor fuel storage and dispensing infrastructure; or

(2) $180,000 for a combination of equipment at any one retail outlet location.

(h) OPERATION OF RENEWABLE FUEL STATIONS.—The Secretary shall establish rules that set forth requirements for grant recipients under this section that include providing to the public the renewable fuel, establishing a marketing plan that informs consumers of the price and availability of the renewable fuel, clearly labeling the dispensers and related equipment, and providing periodic reports on the status of the renewable fuel sales, the type and amount of the renewable fuel dispensed at each location, and the average price of such fuel.

(i) NOTIFICATION REQUIREMENTS.—Not later than the date on which each renewable fuel station begins to offer renewable fuel to the public, the grant recipient that used grant funds to construct or upgrade such station shall notify the Secretary of Energy of such opening. The Secretary of Energy shall add each new renewable fuel station to the renewable fuel station locator on its Website when it receives notification under this subsection.

(j) DOUBLE COUNTING.—No person that receives a credit under section 30C of the Internal Revenue Code of 1986 may receive assistance under this section.

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy for carrying out this section $200,000,000 for each of the fiscal years 2008 through 2014.

(l) RESTRICTION.—No grant shall be provided under this section to a large, vertically integrated oil company.

SEC. 9302. PROHIBITION ON FRANCHISE AGREEMENT RESTRICTIONS RELATED TO RENEWABLE FUEL INFRASTRUCTURE.

(a) IN GENERAL.—Title I of the Petroleum Marketing Practices Act (15 U.S.C. 2801 et seq.) is amended by adding at the end the following:

"SEC. 107. PROHIBITION ON RESTRICTION OF INSTALLATION OF RENEWABLE FUEL PUMPS.

"(a) DEFINITION.—In this section:

"(1) RENEWABLE FUEL.—The term 'renewable fuel' means any fuel—

"(A) at least 85 percent of the volume of which consists of ethanol; or

"(B) any mixture of biodiesel and diesel or renewable diesel (as defined in regulations adopted pursuant to section 211(o) of the Clean Air Act (40 CFR, Part 80)), determined without regard to any use of kerosene and containing at least 20 percent biodiesel or renewable diesel.

"(2) FRANCHISE-RELATED DOCUMENT.—The term 'franchise-related document' means—

"(A) a franchise under this Act; and

"(B) any other contract or directive of a franchisor relating to terms or conditions of the sale of fuel by a franchisee.

"(b) PROHIBITIONS.—

"(1) IN GENERAL.—No franchise-related document entered into or renewed on or after the date of enactment of this section shall contain any provision allowing a franchisor to restrict the franchisee or any affiliate of the franchisee from—

"(A) installing on the marketing premises of the franchisee a renewable fuel pump or tank, except that the franchisee's franchisor may restrict the installation of a tank on leased marketing premises of such franchisor;

"(B) converting an existing tank or pump on the marketing premises of the franchisee for renewable fuel use, so long as such tank or pump and the piping connecting them are either warranted by the manufacturer or certified by a recognized standards setting organization to be suitable for use with such renewable fuel;

"(C) advertising (including through the use of signage) the sale of any renewable fuel;

"(D) selling renewable fuel in any specified area on the marketing premises of the

franchisee (including any area in which a name or logo of a franchisor or any other entity appears);

"(E) purchasing renewable fuel from sources other than the franchisor if the franchisor does not offer its own renewable fuel for sale by the franchisee;

"(F) listing renewable fuel availability or prices, including on service station signs, fuel dispensers, or light poles; or

"(G) allowing for payment of renewable fuel with a credit card,

so long as such activities described in subparagraphs (A) through (G) do not constitute mislabeling, misbranding, willful adulteration, or other trademark violations by the franchisee.

"(2) EFFECT OF PROVISION.—Nothing in this section shall be construed to preclude a franchisor from requiring the franchisee to obtain reasonable indemnification and insurance policies.

"(c) EXCEPTION TO 3-GRADE REQUIREMENT.—No franchise-related document that requires that 3 grades of gasoline be sold by the applicable franchisee shall prevent the franchisee from selling an renewable fuel in lieu of 1, and only 1, grade of gasoline.".

(b) ENFORCEMENT.—Section 105 of the Petroleum Marketing Practices Act (15 U.S.C. 2805) is amended by striking "102 or 103" each place it appears and inserting "102, 103, or 107".

(c) CONFORMING AMENDMENTS.—

(1) IN GENERAL.—Section 101(13) of the Petroleum Marketing Practices Act (15 U.S.C. 2801(13)) is amended by aligning the margin of subparagraph (C) with subparagraph (B).

(2) TABLE OF CONTENTS.—The table of contents of the Petroleum Marketing Practices Act (15 U.S.C. 2801 note) is amended—

(A) by inserting after the item relating to section 106 the following:

"Sec. 107. Prohibition on restriction of installation of renewable fuel pumps."; and

(B) by striking the item relating to section 202 and inserting the following:

"Sec. 202. Automotive fuel rating testing and disclosure requirements.".

SEC. 9303. RENEWABLE FUEL DISPENSER REQUIREMENTS.

(a) MARKET PENETRATION REPORTS.—The Secretary of Energy, in consultation with the Secretary of Transportation, shall determine and report to Congress annually on the market penetration for flexible-fuel vehicles in use within geographic regions to be established by the Secretary of Energy.

(b) DISPENSER FEASIBILITY STUDY.—Not later than 24 months after the date of enactment of this Act, the Secretary of Energy, in consultation with the Department of Transportation, shall report to the Congress on the feasibility of requiring motor fuel retailers to install E–85 compatible dispensers and related systems at retail fuel facilities in regions where flexible-fuel vehicle market penetration has reached 15 percent of motor vehicles. In conducting such study, the Secretary shall consider and report on the following factors:

(1) The commercial availability of E–85 fuel and the number of competing E–85 wholesale suppliers in a given region.

(2) The level of financial assistance provided on an annual basis by the Federal Government, State governments, and nonprofit entities for the installation of E–85 compatible infrastructure.

(3) The number of retailers whose retail locations are unable to support more than 2 underground storage tank dispensers.

(4) The expense incurred by retailers in the installation and sale of E–85 compatible dispensers and related systems and any potential effects on the price of motor vehicle fuel.

SEC. 9304. PIPELINE FEASIBILITY STUDY.

(a) IN GENERAL.—The Secretary of Energy, in consultation with the Secretary of Transportation, shall conduct a study of the feasibility of the construction of dedicated ethanol pipelines.

(b) FACTORS.—In conducting the study, the Secretary shall consider—

(1) the quantity of ethanol production that would make dedicated pipelines economically viable;

(2) existing or potential barriers to dedicated ethanol pipelines, including technical, siting, financing, and regulatory barriers;

(3) market risk (including throughput risk) and means of mitigating the risk;

(4) regulatory, financing, and siting options that would mitigate risk in those areas and help ensure the construction of 1 or more dedicated ethanol pipelines;

(5) financial incentives that may be necessary for the construction of dedicated ethanol pipelines, including the return on equity that sponsors of the initial dedicated ethanol pipelines will require to invest in the pipelines;

(6) technical factors that may compromise the safe transportation of ethanol in pipelines, identi-

fying remedial and preventative measures to ensure pipeline integrity; and

(7) such other factors as the Secretary considers appropriate.

(c) REPORT.—Not later than 15 months after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the results of the study conducted under this section.

SEC. 9305. STUDY OF ETHANOL-BLENDED GASOLINE WITH GREATER LEVELS OF ETHANOL.

(a) IN GENERAL.—The Administrator of the Environmental Protection Agency, in cooperation with the Secretary of Energy and the Secretary of Transportation, and after providing notice and an opportunity for public comment, shall conduct a study of the feasibility of widespread utilization in the United States of ethanol blended gasoline with levels of ethanol greater than 10 percent.

(b) STUDY.—The study under subsection (a) shall include—

(1) a review of production and infrastructure constraints on increasing the consumption of ethanol;

(2) an evaluation of the economic, market, and energy impacts of State and regional differences in ethanol blends;

(3) an evaluation of the economic, market, and energy impacts on gasoline retailers and consumers of separate and distinctly labeled fuel storage facilities and dispensers;

(4) an evaluation of the environmental impacts of mid-level ethanol blends on evaporative and exhaust emissions from on-road, off-road and marine engines, recreational boats, vehicles, and equipment;

(5) an evaluation of the impacts of mid-level ethanol blends on the operation, durability, and performance of on-road, off-road, and marine engines, recreational boats, vehicles, and equipment; and

(6) an evaluation of the safety impacts of mid-level ethanol blends on consumers that own and operate off-road and marine engines, recreational boats, vehicles, or equipment.

(c) REPORT.—Not later than 24 months after the date of enactment of this Act, the Administrator shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report describing the results of the study conducted under this section.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator

such sums as may be necessary for the completion of the study required under this section.

SEC. 9306. STUDY OF THE ADEQUACY OF RAILROAD TRANSPORTATION OF DOMESTICALLY-PRODUCED RENEWABLE FUEL.

(a) STUDY.—

(1) IN GENERAL.—The Secretary of Energy, in consultation with the Secretary of Transportation, shall conduct a study of the adequacy of railroad transportation of domestically-produced renewable fuel.

(2) COMPONENTS.—In conducting the study under paragraph (1), the Secretary shall consider—

(A) the adequacy of, and appropriate location for, tracks that have sufficient capacity, and are in the appropriate condition, to move the necessary quantities of domestically-produced renewable fuel;

(B) the adequacy of the supply of railroad tank cars, locomotives, and rail crews to move the necessary quantities of domestically-produced renewable fuel in a timely fashion;

(C)(i) the projected costs of moving the domestically-produced renewable fuel using railroad transportation; and

(ii) the impact of the projected costs on the marketability of the domestically-produced renewable fuel;

(D) whether there is adequate railroad competition to ensure—

(i) a fair price for the railroad transportation of domestically-produced renewable fuel; and

(ii) acceptable levels of service for railroad transportation of domestically-produced renewable fuel;

(E) any rail infrastructure capital costs that the railroads indicate should be paid by the producers or distributors of domestically-produced renewable fuel;

(F) whether Federal agencies have adequate legal authority to ensure a fair and reasonable transportation price and acceptable levels of service in cases in which the domestically-produced renewable fuel source does not have access to competitive rail service;

(G) whether Federal agencies have adequate legal authority to address railroad service problems that may be resulting in inadequate

supplies of domestically-produced renewable fuel in any area of the United States; and

(H) any recommendations for any additional legal authorities for Federal agencies to ensure the reliable railroad transportation of adequate supplies of domestically-produced renewable fuel at reasonable prices.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that describes the results of the study conducted under subsection (a).

SEC. 9307. STANDARD SPECIFICATIONS FOR BIODIESEL.

Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended by redesignating subsection (s) as subsection (t), redesignating subsection (r) (relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels) as subsection (s) and by adding the following new subsection at the end thereof:

"(u) STANDARD SPECIFICATIONS FOR BIODIESEL.—Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 20 percent biodiesel, not later than 1 year after the date of enactment of this subsection, the Administrator shall initiate

a rulemaking establishing a series of uniform per gallon fuel standards for categories of fuels that contain biodiesel, including one standard for fuel containing 20 percent biodiesel, and designate an identification number for fuel meeting each standard in each such category so that vehicle manufacturers are able to design engines to use fuel meeting one or more of such standards. The Administrator shall finalize the standards under this subsection 18 months after the date of the enactment of this subsection.''.

SEC. 9308. GRANTS FOR CELLULOSIC ETHANOL PRODUCTION.

Subsection (s) of section 211 of the Clean Air Act (as added by section 1512 of the Energy Policy Act of 2005) (and as redesignated by section 9307 of this Act), relating to conversion assistance for cellulosic biomass, waste-derived ethanol, and approved renewable fuels, is amended as follows:

(1) By adding the following new subparagraphs at the end of paragraph (3):

''(D) $500,000,000 for fiscal year 2009.

''(E) $500,000,000 for fiscal year 2010.''.

(2) By adding the following new paragraph at the end thereof:

"(5) CRITERIA.—In awarding grants under this section, the Secretary shall give priority to applications that promote feedstock diversity and the geographic dispersion of production facilities.".

SEC. 9309. CONSUMER EDUCATION CAMPAIGN RELATING TO FLEXIBLE-FUEL VEHICLES.

The Secretary of Transportation, in consultation with the Secretary of Energy, shall carry out an education program to inform consumers about which motor vehicles are flexible-fuel vehicles and how to exercise their opportunity to choose E85 or B20. As part of such program, the Secretary of Transportation may coordinate with motor vehicle manufacturers to notify owners of flexible-fuel vehicles of locations where E85 and B20 are sold in their area.

SEC. 9310. REVIEW OF NEW RENEWABLE FUELS OR NEW RENEWABLE FUEL ADDITIVES.

Notwithstanding any other provision of law, a waiver under section 211(f)(4) of the Clean Air Act for any renewable fuel or renewable fuel additive shall not be considered granted unless the Administrator of the Environment Protection Agency, following a public notice and comment period, takes final action granting the application for a waiver based on an application of the section 211(f)(4) standards and criteria with respect to emissions control devices or systems and vehicle emissions standards to on-

road and non-road engines and vehicles. The Administrator shall take final action on an application for a waiver no later than 270 days after the Administrator receives the application.

SEC. 9311. DOMESTIC MANUFACTURING CONVERSION GRANT PROGRAM.

Section 712 of the Energy Policy Act of 2005 (42 U.S.C. 16062) is amended—

(1) in subsection (a)—

(A) by inserting ", flexible-fuel," after "production of efficient hybrid"; and

(B) by adding at the end the following: "Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation in the near future."; and

(2) by striking subsection (b) and inserting the following:

"(b) COORDINATION WITH STATE AND LOCAL PROGRAMS.—The Secretary may coordinate implementation of this section with State and local programs designed to accomplish similar goals, including the retention and retraining of skilled workers from the such manufacturing facilities, including by establishing matching grant arrangements.

"(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section.".

SEC. 9312. CELLULOSIC ETHANOL AND BIOFUELS RESEARCH.

There are authorized to be appropriated to the Secretary of Energy $50,000,000 for fiscal year 2008, to remain available until expended, for cellulosic ethanol and biofuels research and development grants to 10 entities from among 1890 land grant colleges, Historically Black Colleges or Universities, Tribal serving institutions, or Hispanic serving institutions, selected by the Secretary of Energy to receive a grant under this section through a peer-reviewed competitive process. The selected entities shall then collaborate with one of the Department of Energy's Office of Science Bioenergy Research Centers.

SEC. 9313. FEDERAL FLEET FUELING CENTERS.

(a) IN GENERAL.—Not later than January 1, 2010, the head of each Federal agency shall install at least 1 renewable fuel pump at each Federal fleet fueling center in the United States under the jurisdiction of the head of the Federal agency.

(b) REPORT.—Not later than October 31 of the first calendar year beginning after the date of the enactment of this Act, and each October 31 thereafter, the President

shall submit to Congress a report that describes the progress toward complying with subsection (a), including identifying—

(1) the number of Federal fleet fueling centers that contain at least 1 renewable fuel pump; and

(2) the number of Federal fleet fueling centers that do not contain any renewable fuel pumps.

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

SEC. 9314. STUDY OF IMPACT OF INCREASED RENEWABLE FUEL USE.

(a) IN GENERAL.—The Secretary of Energy shall, after consultation with the Administrator of the Environmental Protection Agency, the Administrator of the Energy Information Administration, and the Secretary of Agriculture, conduct a study to assess the impact of increased use of renewable fuels on the United States economy. The Secretary shall enter into an arrangement with the National Academy of Sciences to provide peer review of the study.

(b) STUDY ELEMENTS.—The study shall analyze, in terms of renewable fuels, the following:

(1) The impact of the use of renewable fuels on the energy security of the United States.

(2) The impact of the use of renewable fuels on public health and the environment, including air and water quality.

(3) The impact of renewable fuels on the infrastructure of the United States, including the deliverability of materials, goods, and products other than alternative fuels.

(4) The impact of the use of renewable fuels on job creation, the price and supply of agricultural commodities, and rural economic development.

(c) PARTICIPATION.—In conducting the study under this section, the Secretary and other agencies shall seek the participation, and consider the input, of the following:

(1) Producers of feed grains.

(2) Producers of livestock, poultry, and pork products.

(3) Producers of energy.

(4) Individuals and entities interested in issues relating to conservation, the environment, and nutrition, and users of renewable fuels.

(d) REPORT.—The Secretary shall submit a report to the Congress containing the initial results of the study under this section not later than 2 years after enactment of this Act and subsequently supplement and update such report every 3 years thereafter.

SEC. 9315. GRANTS FOR RENEWABLE FUEL PRODUCTION RESEARCH AND DEVELOPMENT IN CERTAIN STATES.

(a) IN GENERAL.—The Secretary shall provide grants to eligible entities to conduct research into, and develop and implement, renewable fuel production technologies in States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol, as determined by the Secretary.

(b) ELIGIBILITY.—To be eligible to receive a grant under the section, an entity shall—

(1)(A) be an institution of higher education (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)) located in a State described in subsection (a);

(B) be an institution—

(i) referred to in section 532 of the Equity in Educational Land-Grant Status Act of 1994 (Public Law 103–382; 7 U.S.C. 301 note);

(ii) that is eligible for a grant under the Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C. 1801 et seq.), including Dine College; or

(iii) that is eligible for a grant under the Navajo Community College Act (25 U.S.C. 640a et seq.); or

(C) be a consortium of such institutions of higher education, industry, State agencies, Indian tribal agencies, or local government agencies located in the State; and

(2) have proven experience and capabilities with relevant technologies.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $25,000,000 for each of fiscal years 2008 through 2010.

SEC. 9316. STUDY OF EFFECT OF OIL PRICES.

The Secretary of Energy shall conduct a study to review the anticipated effects on renewable fuels production if oil were priced no lower than $40 per barrel. The Secretary shall report the findings of such study to Congress by December 31, 2008.

SEC. 9317. BIODIESEL AS ALTERNATIVE FUEL FOR CAFÉ PURPOSES.

Section 32901(a) of title 49, United States Code, is amended—

(1) in paragraph (1), by redesignating subparagraphs (J) and (K) as subparagraphs (K) and (L), respectively, and inserting after subparagraph (I) the following:

"(J) B20 biodiesel blend;"; and

(2) by redesignating paragraphs (7) through (16) as paragraphs (9) through (18), respectively, and insert after paragraph (6) the following:

''(7) 'biodiesel' means the monoalkyl esters of long chain fatty acids derived from plant or animal matter which meet—

''(A) the registration requirements for fuels and fuel additives established by the Environmental Protection Agency under section 211 of the Clean Air Act (42 U.S.C. 7545); and

''(B) the requirements of the American Society of Testing and Materials D6751.

''(8) 'B20 biodiesel blend' means a mixture of biodiesel and diesel fuel approximately 20 percent of the content of which is biodiesel, and commonly known as 'B20'.''.

PART 2—UNITED STATES-ISRAEL ENERGY COOPERATION

SEC. 9321. SHORT TITLE.

This part may be cited as the ''United States-Israel Energy Cooperation Act''.

SEC. 9322. FINDINGS.

Congress finds that—

(1) it is in the highest national security interests of the United States to ensure secure access to reliable energy sources;

(2) the United States relies heavily on the foreign supply of crude oil to meet the energy needs of the United States, currently importing 58 percent of the total oil requirements of the United States, of which 45 percent comes from member states of the Organization of Petroleum Exporting Countries (OPEC);

(3) revenues from the sale of oil by some of these countries directly or indirectly provide funding for terrorism and propaganda hostile to the values of the United States and the West;

(4) in the past, these countries have manipulated the dependence of the United States on the oil supplies of these countries to exert undue influence on United States policy, as during the embargo of OPEC during 1973 on the sale of oil to the United States, which became a major factor in the ensuing recession;

(5) research by the Energy Information Administration of the Department of Energy has shown that the dependence of the United States on foreign

oil will increase by 33 percent over the next 20 years;

(6) a rise in the price of imported oil sufficient to increase gasoline prices by 10 cents per gallon at the pump would result in an additional outflow of $18,000,000,000 from the United States to oil-exporting nations;

(7) for economic and national security reasons, the United States should reduce, as soon as practicable, the dependence of the United States on nations that do not share the interests and values of the United States;

(8) the State of Israel has been a steadfast ally and a close friend of the United States since the creation of Israel in 1948;

(9) like the United States, Israel is a democracy that holds civil rights and liberties in the highest regard and is a proponent of the democratic values of peace, freedom, and justice;

(10) cooperation between the United States and Israel on such projects as the development of the Arrow Missile has resulted in mutual benefits to United States and Israeli security;

(11) the special relationship between Israel and the United States has been and continues to be

manifested in a variety of jointly-funded cooperative programs in the field of scientific research and development, such as—

(A) the United States-Israel Binational Science Foundation (BSF);

(B) the Israel-United States Binational Agricultural Research and Development Fund (BARD); and

(C) the Israel-United States Binational Industrial Research and Development (BIRD) Foundation;

(12) these programs, supported by the matching contributions from the Government of Israel and the Government of the United States and directed by key scientists and academics from both countries, have made possible many scientific breakthroughs in the fields of life sciences, medicine, bioengineering, agriculture, biotechnology, communications, and others;

(13) on February 1, 1996, United States Secretary of Energy Hazel R. O'Leary and Israeli Minister of Energy and Infrastructure Gonen Segev signed the Agreement Between the Department of Energy of the United States of America and the Ministry of Energy and Infrastructure of Israel Con-

cerning Energy Cooperation, to establish a framework for collaboration between the United States and Israel in energy research and development activities;

(14) the United States and Israeli governments should promote cooperation in a broad range of projects designed to enhance supplies of nonpetroleum energy for both countries, and to provide for cutting edge research in each country;

(15) Israeli scientists and researchers have long been at the forefront of research and development in the field of alternative renewable energy sources;

(16) many of the top corporations of the world have recognized the technological and scientific expertise of Israel by locating important research and development facilities in Israel;

(17) among the technological breakthroughs made by Israeli scientists and researchers in the field of alternative, renewable energy sources are—

(A) the development of a cathode that uses hexavalent iron salts that accept 3 electrons per ion and enable rechargeable batteries to provide 3 times as much electricity as existing rechargeable batteries;

(B) the development of a technique that vastly increases the efficiency of using solar energy to generate hydrogen for use in energy cells; and

(C) the development of a novel membrane used in new and powerful direct-oxidant fuel cells that is capable of competing favorably with hydrogen fuel cells and traditional internal combustion engines; and

(18) cooperation between the United States and Israel in the field of research and development of alternative renewable energy sources would be in the interests of both countries, and both countries stand to gain much from such cooperation.

SEC. 9323. GRANT PROGRAM.

(a) AUTHORITY.—Pursuant to the responsibilities described in section 102(10), (14), and (17) of the Department of Energy Organization Act (42 U.S.C. 7112(10), (14), and (17)) and section 103(9) of the Energy Reorganization Act of 1974 (42 U.S.C. 5813(9)), the Secretary, in consultation with the BIRD or BSF, shall award grants to eligible entities.

(b) APPLICATION.—

(1) SUBMISSION OF APPLICATIONS.—To receive a grant under this section, an eligible entity shall

1 submit an application to the Secretary containing
2 such information and assurances as the Secretary, in
3 consultation with the BIRD or BSF, may require.
4 (2) SELECTION OF ELIGIBLE ENTITIES.—The
5 Secretary, in consultation with the Directors of the
6 BIRD and BSF, may review any application sub-
7 mitted by any eligible entity and select any eligible
8 entity meeting criteria established by the Secretary,
9 in consultation with the Advisory Board, for a grant
10 under this section.
11 (c) AMOUNT OF GRANT.—The amount of each grant
12 awarded for a fiscal year under this section shall be deter-
13 mined by the Secretary, in consultation with the BIRD
14 or BSF.
15 (d) RECOUPMENT.—
16 (1) IN GENERAL.—Not later than 180 days
17 after the date of enactment of this Act, the Sec-
18 retary shall establish procedures and criteria for
19 recoupment in connection with any eligible project
20 carried out by an eligible entity that receives a grant
21 under this section, which has led to the development
22 of a product or process which is marketed or used.
23 (2) AMOUNT REQUIRED.—
24 (A) Except as provided in subparagraph
25 (B), such recoupment shall be required as a

condition for award and be proportional to the Federal share of the costs of such project, and shall be derived from the proceeds of royalties or licensing fees received in connection with such product or process.

(B) In the case where a product or process is used by the recipient of a grant under this section for the production and sale of its own products or processes, the recoupment shall consist of a payment equivalent to the payment which would be made under subparagraph (A).

(3) WAIVER.—The Secretary may at any time waive or defer all or some of the recoupment requirements of this subsection as necessary, depending on—

(A) the commercial competitiveness of the entity or entities developing or using the product or process;

(B) the profitability of the project; and

(C) the commercial viability of the product or process utilized.

(e) PRIVATE FUNDS.—The Secretary may accept contributions of funds from private sources to carry out this part.

(f) OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY.—The Secretary shall carry out this section through the existing programs at the Office of Energy Efficiency and Renewable Energy.

(g) REPORT.—Not later than 180 days after receiving a grant under this section, each recipient shall submit a report to the Secretary—

(1) documenting how the recipient used the grant funds; and

(2) evaluating the level of success of each project funded by the grant.

SEC. 9324. INTERNATIONAL ENERGY ADVISORY BOARD.

(a) ESTABLISHMENT.—There is established in the Department of Energy an International Energy Advisory Board.

(b) DUTIES.—The Advisory Board shall advise the Secretary on—

(1) criteria for the recipients of grants awarded under section 9323(a);

(2) the total amount of grant money to be awarded to all grantees selected by the Secretary, in consultation with the BIRD; and

(3) the total amount of grant money to be awarded to all grantees selected by the Secretary, in consultation with the BSF, for each fiscal year.

(c) MEMBERSHIP.—

(1) COMPOSITION.—The Advisory Board shall be composed of—

(A) 1 member appointed by the Secretary of Commerce;

(B) 1 member appointed by the Secretary of Energy; and

(C) 2 members who shall be Israeli citizens, appointed by the Secretary of Energy after consultation with appropriate officials in the Israeli Government.

(2) DEADLINE FOR APPOINTMENTS.—The initial appointments under paragraph (1) shall be made not later than 60 days after the date of enactment of this Act.

(3) TERM.—Each member of the Advisory Board shall be appointed for a term of 4 years.

(4) VACANCIES.—A vacancy on the Advisory Board shall be filled in the manner in which the original appointment was made.

(5) BASIC PAY.—

(A) COMPENSATION.—A member of the Advisory Board shall serve without pay.

(B) TRAVEL EXPENSES.—Each member of the Advisory Board shall receive travel ex-

penses, including per diem in lieu of subsistence, in accordance with applicable provisions of subchapter I of chapter 57 of title 5, United States Code.

(6) QUORUM.—Three members of the Advisory Board shall constitute a quorum.

(7) CHAIRPERSON.—The Chairperson of the Advisory Board shall be designated by the Secretary of Energy at the time of the appointment.

(8) MEETINGS.—The Advisory Board shall meet at least once annually at the call of the Chairperson.

(d) TERMINATION.—Section 14(a)(2)(B) of the Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the Advisory Board.

SEC. 9325. DEFINITIONS.

In this part:

(1) ADVISORY BOARD.—The term ''Advisory Board'' means the International Energy Advisory Board established by section 9324(a).

(2) BIRD.—The term ''BIRD'' means the Israel-United States Binational Industrial Research and Development Foundation.

(3) BSF.—The term ''BSF'' means the United States-Israel Binational Science Foundation.

(4) ELIGIBLE ENTITY.—The term ''eligible entity'' means a joint venture comprised of both Israeli and United States private business entities or a joint venture comprised of both Israeli academic persons (who reside and work in Israel) and United States academic persons, that—

(A) carries out an eligible project; and

(B) is selected by the Secretary, in consultation with the BIRD or BSF, using the criteria established by the Secretary, in consultation with the Advisory Board.

(5) ELIGIBLE PROJECT.—The term ''eligible project'' means a project to encourage cooperation between the United States and Israel on research, development, or commercialization of alternative energy, improved energy efficiency, or renewable energy sources.

(6) SECRETARY.—The term ''Secretary'' means the Secretary of Energy, acting through the Assistant Secretary of Energy for Energy Efficiency and Renewable Energy.

SEC. 9326. TERMINATION.

The grant program authorized under section 9323 and the Advisory Board shall terminate upon the expira-

tion of the 7-year period which begins on the date of the enactment of this Act.

SEC. 9327. AUTHORIZATION OF APPROPRIATIONS.

The Secretary is authorized to expend not more than $20,000,000 to carry out this part for each of fiscal years 2008 through 2014 from funds previously authorized to the Office of Energy Efficiency and Renewable Energy.

SEC. 9328. CONSTITUTIONAL AUTHORITY.

The Constitutional authority on which this part rests is the power of Congress to regulate commerce with foreign nations as enumerated in Article I, Section 8 of the United States Constitution.

Subtitle E—Advanced Plug-In Hybrid Vehicles and Components

SEC. 9401. ADVANCED BATTERY LOAN GUARANTEE PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.—The Secretary of Energy shall establish a program to provide guarantees of loans by private institutions for the construction of facilities for the manufacture of advanced vehicle batteries and battery systems that are developed and produced in the United States, including advanced lithium ion batteries and hybrid electrical system and component manufacturers and software designers.

(b) REQUIREMENTS.—The Secretary may provide a loan guarantee under subsection (a) to an applicant if—

(1) without a loan guarantee, credit is not available to the applicant under reasonable terms or conditions sufficient to finance the construction of a facility described in subsection (a);

(2) the prospective earning power of the applicant and the character and value of the security pledged provide a reasonable assurance of repayment of the loan to be guaranteed in accordance with the terms of the loan; and

(3) the loan bears interest at a rate determined by the Secretary to be reasonable, taking into account the current average yield on outstanding obligations of the United States with remaining periods of maturity comparable to the maturity of the loan.

(c) CRITERIA.—In selecting recipients of loan guarantees from among applicants, the Secretary shall give preference to proposals that—

(1) meet all applicable Federal and State permitting requirements;

(2) are most likely to be successful; and

(3) are located in local markets that have the greatest need for the facility.

(d) MATURITY.—A loan guaranteed under subsection (a) shall have a maturity of not more than 20 years.

(e) TERMS AND CONDITIONS.—The loan agreement for a loan guaranteed under subsection (a) shall provide that no provision of the loan agreement may be amended or waived without the consent of the Secretary.

(f) ASSURANCE OF REPAYMENT.—The Secretary shall require that an applicant for a loan guarantee under subsection (a) provide an assurance of repayment in the form of a performance bond, insurance, collateral, or other means acceptable to the Secretary in an amount equal to not less than 20 percent of the amount of the loan.

(g) GUARANTEE FEE.—The recipient of a loan guarantee under subsection (a) shall pay the Secretary an amount determined by the Secretary to be sufficient to cover the administrative costs of the Secretary relating to the loan guarantee.

(h) FULL FAITH AND CREDIT.—The full faith and credit of the United States is pledged to the payment of all guarantees made under this section. Any such guarantee made by the Secretary shall be conclusive evidence of the eligibility of the loan for the guarantee with respect to principal and interest. The validity of the guarantee shall be incontestable in the hands of a holder of the guaranteed loan.

(i) REPORTS.—Until each guaranteed loan under this section has been repaid in full, the Secretary shall annually submit to Congress a report on the activities of the Secretary under this section.

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

(k) TERMINATION OF AUTHORITY.—The authority of the Secretary to issue a loan guarantee under subsection (a) terminates on the date that is 10 years after the date of enactment of this Act.

SEC. 9402. DOMESTIC MANUFACTURING CONVERSION GRANT PROGRAM.

Section 712 of the Energy Policy Act of 2005 (42 U.S.C. 16062) is amended—

(1) in subsection (a)—

(A) by inserting ''and components thereof'' after ''sales of efficient hybrid and advanced diesel vehicles'';

(B) by inserting ''and hybrid component manufacturers'' after ''grants to automobile manufacturers'';

(C) by inserting '', plug-in electric hybrid,'' after ''production of efficient hybrid'';

(D) by inserting ''and suppliers'' after ''automobile manufacturers''; and

(E) by adding at the end the following: ''Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation in the near future.''; and

(2) by striking subsection (b) and inserting the following:

''(b) COORDINATION WITH STATE AND LOCAL PROGRAMS.—The Secretary may coordinate implementation of this section with State and local programs designed to accomplish similar goals, including the retention and retraining of skilled workers from the such manufacturing facilities, including by establishing matching grant arrangements.

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

SEC. 9403. PLUG-IN HYBRID VEHICLE PROGRAM.

(a) PLUG-IN ELECTRIC DRIVE VEHICLE PROGRAM.—

(1) ESTABLISHMENT.—The Secretary of Energy (in this section referred to as the ''Secretary'') shall establish a competitive program to provide

grants on a cost-shared basis to State governments, local governments, metropolitan transportation authorities, air pollution control districts, private or nonprofit entities or combinations thereof, to carry out a project or projects to encourage the use of plug-in electric drive vehicles or other emerging electric vehicle technologies, as determined by the Secretary.

(2) ADMINISTRATION.—The Secretary shall establish requirements for applications for grants under this section, including reporting of data to be summarized for dissemination to the Department, other grantees, and the public, including vehicle and component performance and vehicle and component life cycle costs.

(3) SELECTION CRITERIA.—

(A) PRIORITY.—When making awards under this subsection, the Secretary shall give priority consideration to applications that encourage early widespread utilization of such vehicles and are likely to make a significant contribution to the advancement of the production of such vehicles in the United States.

(B) SCOPE OF PROGRAMS.—When making awards under this subsection, the Secretary

shall ensure that the programs will maximize diversity in applications, manufacturers, end-uses and vehicle control systems.

(4) AUTHORIZATIONS OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the program under this subsection, such sums as may be necessary.

(5) CERTAIN APPLICANTS.—A battery manufacturer that proposes to supply to an applicant for a grant under this section a battery with a capacity of greater than 1 kilowatt-hour for use in a plug-in electric drive vehicle shall—

(A) ensure that the applicant includes in the application a description of the price of the battery per kilowatt hour;

(B) on approval by the Secretary of the application, publish, or permit the Secretary to publish, the price described in subparagraph (A); and

(C) for any order received by the battery manufacturer for at least 1,000 batteries, offer batteries at that price.

(b) ELECTRIC DRIVE EDUCATION PROGRAM.—

(1) IN GENERAL.—The Secretary shall develop a nationwide electric drive transportation education program under which the Secretary shall provide—

(A) teaching materials to secondary schools and high schools; and

(B) assistance for programs relating to electric drive system and component engineering to institutions of higher education.

(2) ELECTRIC VEHICLE COMPETITION.—The program established under paragraph (1) shall include a plug-in hybrid electric vehicle competition for institutions of higher education, which shall be known as the ''Dr. Andrew Frank Plug-In Hybrid Electric Vehicle Competition''.

(3) ENGINEERS.—In carrying out the program established under paragraph (1), the Secretary shall provide financial assistance to institutions of higher education to create new, or support existing, degree programs to ensure the availability of trained electrical and mechanical engineers with the skills necessary for the advancement of—

(A) plug-in electric drive vehicles; and

(B) other forms of electric drive vehicles.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Sec-

retary to carry out this subsection such sums as may be necessary.

SEC. 9404. PLUG-IN HYBRID DEMONSTRATION VEHICLES.

(a) IN GENERAL.—The Secretary of Energy shall establish a program to make grants to owners of domestic motor vehicle manufacturing or production facilities for the production of plug-in hybrid electric motors or conversion modules to be used as electricity storage capacity for utilities.

(b) PROGRAMS.—The Secretary of Energy shall establish programs to determine how to best integrate plug-in hybrid vehicles into the electric power grid and into the overall electricity infrastructure. These programs shall be conducted in 5 separate regions across the United States at the discretion of the Secretary.

(c) PILOT PROGRAMS.—The Secretary shall establish during the first 6 months of 2008, with other governmental entities, no less than 5 separate pilot programs to convert at least 1000 vehicles in each program to plug-hybrid electric vehicles.

(d) FEDERAL CONTRIBUTION.—The Department of Energy shall contribute up to 50 percent of the cost of conversion modules.

(e) INSTALLATION.—Installations of electricity storage devices shall be undertaken by trained and certified mechanics.

(f) MONITORING.—The Secretary of Energy shall require the monitoring of reliability, efficiency, breakeven costs, and customer satisfaction for a period of 3 years.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section.

SEC. 9405. INCENTIVE FOR FEDERAL AND STATE FLEETS FOR MEDIUM AND HEAVY DUTY HYBRIDS.

Section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211) is amended—

(1) in paragraph (3), by striking ''or a dual fueled vehicle'' and inserting '', a dual fueled vehicle, or a medium or heavy duty vehicle that is a hybrid vehicle'';

(2) by redesignating paragraphs (11), (12), (13), and (14) as paragraphs (12), (14), (15), and (16), respectively;

(3) by inserting after paragraph (10) the following new paragraph:

''(11) the term 'hybrid vehicle' means a vehicle powered both by a diesel or gasoline engine and an

electric motor or hydraulic energy storage device that is recharged as the vehicle operates;''; and

(4) by inserting after paragraph (12) (as so redesignated by paragraph (2) of this section) the following new paragraph:

''(13) the term 'medium or heavy duty vehicle' means a vehicle that—

''(A) in the case of a medium duty vehicle, has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds; and

''(B) in the case of a heavy duty vehicle, has a gross vehicle weight rating of more than 14,000 pounds;''.

SEC. 9406. INCLUSION OF ELECTRIC DRIVE IN ENERGY POLICY ACT OF 1992.

Section 508 of the Energy Policy Act of 1992 (42 U.S.C. 13258) is amended—

(1) by striking ''The Secretary'' in subsection (a) and inserting ''(1) The Secretary''; and

(2) by adding at the end of subsection (a) the following:

''(2) Not later than January 31, 2009, the Secretary shall allocate credit in an amount to be determined by the Secretary for acquisition of—

"(A) a hybrid electric vehicle;

"(B) a plug-in hybrid electric vehicle;

"(C) a fuel cell electric vehicle;

"(D) a neighborhood electric vehicle; or

"(E) a medium-duty or heavy-duty electric, hybrid electric, hybrid hydraulic, or plug-in hybrid electric vehicle."; and

(3) by adding at the end the following:

"(e) DEFINITIONS.—In this section:

"(1) FUEL CELL ELECTRIC VEHICLE.—The term 'fuel cell electric vehicle' means an on-road or nonroad vehicle that uses a fuel cell (as defined in section 803 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 2005 (42 U.S.C. 16152).

"(2) HYBRID ELECTRIC VEHICLE.—The term 'hybrid electric vehicle' means a new qualified hybrid motor vehicle (as defined in section 30B(d)(3) of the Internal Revenue Code of 1986).

"(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC, HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC VEHICLE.—The term 'medium-duty or heavy-duty electric, hybrid electric, or plug-in hybrid electric vehicle' is an electric, hybrid electric, or plug-in hybrid

electric motor vehicle greater than 8,501 pounds gross vehicle rating.

"(4) NEIGHBORHOOD ELECTRIC VEHICLE.—The term 'neighborhood electric vehicle' means a 4-wheeled on-road or nonroad vehicle, with a top attainable speed in 1 mile of more than 20 mph and not more than 25 mph on a paved level surface, that is propelled by an electric motor and on board, rechargeable energy storage system that is rechargeable using an off-board source of electricity.

"(5) PLUG-IN HYBRID ELECTRIC VEHICLE.—The term 'plug-in hybrid electric vehicle' means a light-duty, medium-duty, or heavy-duty on-road or nonroad vehicle that is propelled by any combination of—

"(A) an electric motor and on-board, rechargeable energy storage system capable of operating the vehicle in intermittent or continuous all-electric mode and which is rechargeable using an off-board source of electricity; and

"(B) an internal combustion engine or heat engine using any combustible fuel.

"(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section

such sums as are necessary for each of fiscal years 2008 through 2013.''.

SEC. 9407. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION DEPLOYMENT PROGRAM.

(a) REVOLVING LOAN PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a revolving loan program to provide loans to eligible entities for the conduct of qualified electric transportation projects.

(2) CRITERIA.—The Secretary shall establish criteria for the provision of loans under this subsection.

(b) MARKET ASSESSMENT AND ELECTRICITY USAGE PROGRAM.—

(1) IN GENERAL.—The Administrator of the Environmental Protection Agency, in consultation with the Secretary and private industry, shall carry out a program—

(A) to inventory and analyze existing electric drive transportation technologies and hybrid technologies and markets; and

(B) to identify and implement methods of removing barriers for existing and emerging applications of electric drive transportation technologies and hybrid transportation technologies.

(2) ELECTRICITY USAGE.—The Secretary, in consultation with the Administrator of the Environmental Protection Agency and private industry, shall carry out a program—

(A) to develop systems and processes—

(i) to enable plug-in electric vehicles to enhance the availability of emergency back-up power for consumers; and

(ii) to study and demonstrate the potential value to the electric grid of using the energy stored in the on-board storage systems to improve the efficiency of the grid generation system; and

(B) to work with utilities and other interested stakeholders to study and demonstrate the implications of the introduction of plug-in electric vehicles and other types of electric transportation on the production of electricity from renewable resources.

(3) OFF-PEAK ELECTRICITY USAGE GRANTS.—In carrying out the program under paragraph (2), the Secretary shall provide grants to assist eligible public and private electric utilities to conduct programs or activities to encourage owners of electric drive transportation technologies—

(A) to use off-peak electricity; or

(B) to have the load managed by the utility.

(c) DEFINITION OF QUALIFIED ELECTRIC TRANSPORTATION PROJECT.—In this section, the term ''qualified electric transportation project'' includes a project relating to—

(1) ship-side or shore-side electrification for vessels;

(2) truck-stop electrification;

(3) electric truck refrigeration units;

(4) battery-powered auxiliary power units for trucks;

(5) electric airport ground support equipment;

(6) electric material/cargo handling equipment;

(7) electric or dual-mode electric freight rail;

(8) any distribution upgrades needed to supply electricity to the qualified electric transportation projects; and

(9) any ancillary infrastructure, including panel upgrades, battery chargers, in-situ transformer, and trenching.

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

SEC. 9408. STUDYING THE BENEFITS OF PLUG-IN HYBRID ELECTRIC DRIVE VEHICLES AND ELECTRIC DRIVE TRANSPORTATION.

(a) STUDY.—

(1) CITY CARS.—Not later than 1 year after the date of enactment of this section, the Secretary of Transportation in consultation with the Secretary of Energy and appropriate Federal agencies and interested stakeholders in the public, private and nonprofit sectors, shall study and report to Congress on the benefits of and barriers to the widespread use of a potentially new class of vehicles known as city cars with performance capability that exceeds that of low speed vehicles but is less than that of passenger vehicles, and which may be battery electric, fuel cell electric, or plug-in hybrid electric vehicles. Such study shall examine the benefits and issues associated with limiting city cars to a maximum speed of 35 mph, 45 mph, 55 mph, or any other maximum speed, and make a recommendation regarding maximum speed.

(2) AUTHORIZATION OF APPROPRIATIONS.—Such sums as may be necessary are authorized to be appropriated to carry out this subsection.

(b) DEFINITIONS.—In this section—

(1) NONROAD VEHICLE.—The term ''nonroad vehicle'' has the meaning given that term in section 216 of the Clean Air Act (42 U.S.C. 7550)), or vehicles of the same classification that are fully or partially powered by an electric motor powered by a fuel cell, a battery, or an off-board source of electricity.

(2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The term ''plug-in electric drive vehicle'' means a means a light-duty, medium-duty, or heavy-duty on-road or nonroad battery electric, hybrid or fuel cell vehicle that can be recharged from an external electricity source for motive power.

(3) PLUG-IN HYBRID ELECTRIC VEHICLE.—The term ''plug-in hybrid electric vehicle'' means a light-duty, medium-duty, or heavy-duty on-road or nonroad vehicle that is propelled by any combination of—

(A) an electric motor and on-board, rechargeable energy storage system capable of operating the vehicle in intermittent or continuous all-electric mode and which is rechargeable using an off-board source of electricity; and

(B) an internal combustion engine or heat engine using any combustible fuel.

Subtitle F—Availability of Critical Energy Information

SEC. 9501. FINDINGS.

The Congress finds that—

(1) the Energy Information Administration's data is critical not merely for analysis of the role of energy in our economy and environment, but for the effective functioning of domestic and international energy markets.

(2) Federal and State policymakers rely on the Energy Information Administration to collect and report State level energy information needed for energy policymaking, compliance with Federal and State mandates, and for purposes of emergency energy preparedness and response;

(3) as policymakers consider and implement policies to cut greenhouse gas emissions, accurate, timely, and comparable State energy information becomes even more important;

(4) new and expanded sources of information about energy demand and supply have become available and need to be incorporated in the Energy Information Administration's data and analysis functions;

(5) the Energy Information Administration needs to maintain and enhance its ability to collect, process, and analyze data while confronting broader demands for information in greater detail; and

(6) budget and personnel constraints have forced the Energy Information Administration to curtail surveys relied upon by energy and financial markets and could further defer important improvements in the scope and quality of resulting information.

SEC. 9502. ASSESSMENT OF RESOURCES.

(a) FIVE-YEAR PLAN.—The Administrator of the Energy Information Administration shall establish a 5-year plan to enhance the quality and scope of the data collection necessary to ensure the scope, accuracy, and timeliness of the information needed for efficient functioning of energy markets and related financial operations. Particular attention shall be paid to restoring data series terminated because of budget constraints, data on demand response, timely data series of State-level information, improvements in the area of oil and gas data, improvements in data on solid byproducts from coal-based energy-producing facilities, and the ability to provide data mandated by Congress promptly and completely.

(b) SUBMITTAL TO CONGRESS.—The Administrator shall submit this plan to Congress detailing improvements needed to enhance the Energy Information Administration's ability to collect and process energy information in a manner consistent with the needs of energy markets.

(c) GUIDELINES.—The Administrator shall—

(1) establish guidelines to ensure the quality, comparability, and scope of State energy data, including data on energy production and consumption by product and sector and renewable and alternative sources, required to provide a comprehensive, accurate energy profile at the State level;

(2) share company-level data collected at the State level with the State involved, provided the State has agreed to reasonable guidelines for its use adopted by the Administrator;

(3) assess any existing gaps in data obtained by and compiled by the Energy Information Administration; and

(4) evaluate the most cost effective ways to address any data quality and quantity issues in conjunction with State officials.

The Energy Information Administration shall consult with State officials and the Federal Energy Regulatory Commission on a regular basis in establishing these guidelines

and scope of State level data, as well as in exploring ways to address data needs and serve data uses.

(d) ASSESSMENT OF STATE DATA NEEDS.—The Administrator shall provide an assessment of these State-level data needs to the Congress not later than 1 year after the date of enactment of this Act, detailing a plan to address the needs identified.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator for carrying out this section, in addition to any other authorizations—

(1) $10,000,000 for fiscal year 2008;

(2) $10,000,000 for fiscal year 2009;

(3) $10,000,000 for fiscal year 2010;

(4) $15,000,000 for fiscal year 2011;

(5) $20,000,000 for fiscal year 2012; and

(6) such sums as are necessary for subsequent fiscal years.

Subtitle G—Natural Gas Utilities

SEC. 9511. NATURAL GAS UTILITIES.

(a) IN GENERAL.—Section 303(b) of the Public Utility Regulatory Policies Act of 1978 (15 U.S.C. 3203(b)) is amended by adding at the end the following:

"(5) ENERGY EFFICIENCY.—Each natural gas utility shall—

"(A) integrate energy efficiency resources into the plans and planning processes of the natural gas utility; and

"(B) adopt policies that establish energy efficiency as a priority resource in the plans and planning processes of the natural gas utility.

For purposes of applying the provisions of this subtitle to this paragraph, any reference in this subtitle to the date of enactment of this Act shall be treated as a reference to the date of the enactment of this paragraph.

"(6) RATE POLICY MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS.—

"(A) IN GENERAL.—The rates allowed to be charged by a natural gas utility shall align utility incentives with the deployment of cost-effective energy efficiency.

"(B) POLICY OPTIONS.—In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

"(i) ensuring that utilities' recovery of authorized revenues is independent of the

amount of customers' natural gas consumption;

"(ii) providing to utilities incentives for the successful management of energy efficiency programs, such as allowing utilities to retain a portion of the cost-reducing benefits accruing from the programs;

"(iii) promoting the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives; and

"(iv) adopting rate designs that encourage energy efficiency for each customer class.

For purposes of applying the provisions of this subtitle to this paragraph, any reference in this subtitle to the date of enactment of this Act shall be treated as a reference to the date of the enactment of this paragraph.".

(b) CONFORMING AMENDMENT.—Section 303(b)(2) of such Act is amended by striking "and (4)" inserting "(4), (5), and (6)" in lieu thereof.

Subtitle H—Federal Renewable Portfolio Standard

SEC. 9611. FEDERAL RENEWABLE PORTFOLIO STANDARD.

(a) IN GENERAL.—Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

"SEC. 610. FEDERAL RENEWABLE PORTFOLIO STANDARD.

"(a) DEFINITIONS.—For purposes of this section:

"(1) BIOMASS.—

"(A) IN GENERAL.—The term 'biomass' means—

"(i) cellulosic (plant fiber) organic materials from a plant that is planted for the purpose of being used to produce energy; or

"(ii) nonhazardous, plant or algal matter that is derived from any of the following:

"(I) An agricultural crop, crop byproduct or residue resource.

"(II) Waste such as landscape or right-of-way trimmings (but not including municipal solid waste, recyclable postconsumer waste paper, paint-

ed, treated, or pressurized wood, wood contaminated with plastic or metals).

"(III) Gasified animal waste.

"(IV) Landfill methane.

"(B) NATIONAL FOREST LANDS AND CERTAIN OTHER PUBLIC LANDS.—With respect to organic material removed from National Forest System lands or from public lands administered by the Secretary of the Interior, the term 'biomass' covers only organic material from (i) ecological forest restoration; (ii) pre-commercial thinnings; (iii) brush; (iv) mill residues; and (v) slash.

"(C) EXCLUSION OF CERTAIN FEDERAL LANDS.—Notwithstanding subparagraph (B), material or matter that would otherwise qualify as biomass are not included in the term biomass if they are located on the following Federal lands:

"(i) Federal land containing old growth forest or late successional forest unless the Secretary of the Interior or the Secretary of Agriculture determines that the removal of organic material from such land is appropriate for the applicable forest

type and maximizes the retention of late-successional and large and old growth trees, late-successional and old growth forest structure, and late-successional and old growth forest composition.

''(ii) Federal land on which the removal of vegetation is prohibited, including components of the National Wilderness Preservation System.

''(iii) Wilderness Study Areas.

''(iv) Inventoried roadless areas.

''(v) Components of the National Landscape Conservation System.

''(vi) National Monuments.

''(2) ELIGIBLE FACILITY.—The term 'eligible facility' means—

''(A) a facility for the generation of electric energy from a renewable energy resource that is placed in service on or after January 1, 2001; or

''(B) a repowering or cofiring increment.

''(3) EXISTING FACILITY.—The term 'existing facility' means a facility for the generation of electric energy from a renewable energy resource that is not an eligible facility.

"(4) INCREMENTAL HYDROPOWER.—The term 'incremental hydropower' means additional generation that is achieved from increased efficiency or additions of capacity made on or after January 1, 2001, or the effective date of an existing applicable State renewable portfolio standard program at a hydroelectric facility that was placed in service before that date.

"(5) INDIAN LAND.—The term 'Indian land' means—

"(A) any land within the limits of any Indian reservation, pueblo, or rancheria;

"(B) any land not within the limits of any Indian reservation, pueblo, or rancheria title to which was on the date of enactment of this paragraph either held by the United States for the benefit of any Indian tribe or individual or held by any Indian tribe or individual subject to restriction by the United States against alienation;

"(C) any dependent Indian community; or

"(D) any land conveyed to any Alaska Native corporation under the Alaska Native Claims Settlement Act.

"(6) INDIAN TRIBE.—The term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

"(7) RENEWABLE ENERGY.—The term 'renewable energy' means electric energy generated by a renewable energy resource.

"(8) RENEWABLE ENERGY RESOURCE.—The term 'renewable energy resource' means solar (including solar water heating), wind, ocean, tidal, geothermal energy, biomass, landfill gas, or incremental hydropower.

"(9) REPOWERING OR COFIRING INCREMENT.—The term 'repowering or cofiring increment' means—

"(A) the additional generation from a modification that is placed in service on or after January 1, 2001, to expand electricity production at a facility used to generate electric energy from a renewable energy resource or to

cofire biomass that was placed in service before the date of enactment of this section; or

"(B) the additional generation above the average generation in the 3 years preceding the date of enactment of this section at a facility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before the date of enactment of this section.

"(10) RETAIL ELECTRIC SUPPLIER.—The term 'retail electric supplier' means a person that sells electric energy to electric consumers (other than consumers in Hawaii) that sold not less than 1,000,000 megawatt-hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year; except that such term does not include the United States, a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing, or a rural electric cooperative.

"(11) RETAIL ELECTRIC SUPPLIER'S BASE AMOUNT.—The term 'retail electric supplier's base amount' means the total amount of electric energy sold by the retail electric supplier, expressed in terms of kilowatt hours, to electric customers for

purposes other than resale during the most recent calendar year for which information is available, excluding—

"(A) electric energy that is not incremental hydropower generated by a hydroelectric facility; and

"(B) electricity generated through the incineration of municipal solid waste.

"(b) COMPLIANCE.—For each calendar year beginning in calendar year 2010, each retail electric supplier shall meet the requirements of subsection (c) by submitting to the Secretary, not later than April 1 of the following calendar year, one or more of the following:

"(1) Federal renewable energy credits issued under subsection (e).

"(2) Federal energy efficiency credits issued under subsection (i), except that Federal energy efficiency credits may not be used to meet more than 27 percent of the requirements of subsection (c) in any calendar year.

"(3) Certification of the renewable energy generated and electricity savings pursuant to the funds associated with State compliance payments as specified in subsection (e)(3)(G).

1 "(4) Alternative compliance payments pursuant
2 to subsection (j).
3 "(c) REQUIRED ANNUAL PERCENTAGE.—For cal-
4 endar years 2010 through 2039, the required annual per-
5 centage of the retail electric supplier's base amount that
6 shall be generated from renewable energy resources, or
7 otherwise credited towards such percentage requirement
8 pursuant to subsection (d), shall be the percentage speci-
9 fied in the following table:

"Calendar Years	Required annual percentage
2010	2.75
2011	2.75
2012	3.75
2013	4.5
2014	5.5
2015	6.5
2016	7.5
2017	8.25
2018	10.25
2019	12.25
2020 and thereafter through 2039	15

10 "(d) RENEWABLE ENERGY AND ENERGY EFFI-
11 CIENCY CREDITS.—(1) A retail electric supplier may sat-
12 isfy the requirements of subsection (b)(1) through the sub-
13 mission of Federal renewable energy credits—
14 "(A) issued to the retail electric supplier under
15 subsection (e);
16 "(B) obtained by purchase or exchange under
17 subsection (f) or (g); or
18 "(C) borrowed under subsection (h).

"(2) A retail electric supplier may satisfy the requirements of subsection (b)(2) through the submission of Federal energy efficiency credits issued to the retail electric supplier obtained by purchase or exchange pursuant to subsection (i).

"(3) A Federal renewable energy credit may be counted toward compliance with subsection (b)(1) only once. A Federal energy efficiency credit may be counted toward compliance with subsection (b)(2) only once.

"(e) ISSUANCE OF CREDITS.—(1) The Secretary shall establish by rule, not later than 1 year after the date of enactment of this section, a program to verify and issue Federal renewable energy credits to generators of renewable energy, track their sale, exchange and retirement and to enforce the requirements of this section. To the extent possible, in establishing such program, the Secretary shall rely upon existing and emerging State or regional tracking systems that issue and track non-Federal renewable energy credits.

"(2) An entity that generates electric energy through the use of a renewable energy resource may apply to the Secretary for the issuance of renewable energy credits. The applicant must demonstrate that the electric energy will be transmitted onto the grid or, in the case of a generation offset, that the electric energy offset would have

otherwise been consumed on site. The application shall indicate—

"(A) the type of renewable energy resource used to produce the electricity;

"(B) the location where the electric energy was produced; and

"(C) any other information the Secretary determines appropriate.

"(3)(A) Except as provided in subparagraphs (B), (C), and (D), the Secretary shall issue to a generator of electric energy one Federal renewable energy credit for each kilowatt hour of electric energy generated by the use of a renewable energy resource at an eligible facility.

"(B) For purpose of compliance with this section, Federal renewable energy credits for incremental hydropower shall be based, on the increase in average annual generation resulting from the efficiency improvements or capacity additions. The incremental generation shall be calculated using the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility and certified by the Secretary or the Federal Energy Regulatory Commission. The calculation of the Federal renewable energy credits for incremental hydropower shall not be based on any operational

1 changes at the hydroelectric facility not directly associated
2 with the efficiency improvements or capacity additions.
3 "(C) The Secretary shall issue 2 renewable energy
4 credits for each kilowatt hour of electric energy generated
5 and supplied to the grid in that calendar year through the
6 use of a renewable energy resource at an eligible facility
7 located on Indian land. For purposes of this paragraph,
8 renewable energy generated by biomass cofired with other
9 fuels is eligible for two credits only if the biomass was
10 grown on such land.
11 "(D) For electric energy generated by a renewable
12 energy resource at an on-site eligible facility and used to
13 offset part or all of the customer's requirements for elec-
14 tric energy, the Secretary shall issue 3 renewable energy
15 credits to such customer for each kilowatt hour generated.
16 "(E) If both a renewable energy resource and a non-
17 renewable energy resource are used to generate the electric
18 energy, the Secretary shall issue the Federal renewable en-
19 ergy credits based on the proportion of the renewable en-
20 ergy resources used.
21 "(F) When a generator has sold electric energy gen-
22 erated through the use of a renewable energy resource to
23 a retail electric supplier under a contract for power from
24 an existing facility, and the contract has not determined
25 ownership of the Federal renewable energy credits associ-

ated with such generation, the Secretary shall issue such Federal renewable energy credits to the retail electric supplier for the duration of the contract.

"(G) Payments made by a retail electricity supplier, directly or indirectly, to a State for compliance with a State renewable portfolio standard program, or for an alternative compliance mechanism, shall be valued for the purpose of subsection (b)(2) based on the amount of electric energy generation from renewable resources and electricity savings that results from those payments.

"(f) EXISTING FACILITIES.—The Secretary shall ensure that a retail electric supplier that acquires Federal renewable energy credits associated with the generation of renewable energy from an existing facility may use such credits for purpose of its compliance with subsection (b)(1). Such credits may not be sold or traded for the purpose of compliance by another retail electric supplier.

"(g) RENEWABLE ENERGY CREDIT TRADING.—A Federal renewable energy credit, may be sold, transferred or exchanged by the entity to whom issued or by any other entity who acquires the Federal renewable energy credit, except for those renewable energy credits from existing facilities. A Federal renewable energy credit for any year that is not submitted to satisfy the minimum renewable generation requirement of subsection (c) for that year may

be carried forward for use pursuant to subsection (b)(1) within the next 3 years.

"(h) RENEWABLE ENERGY CREDIT BORROWING.—At any time before the end of calendar year 2012, a retail electric supplier that has reason to believe it will not be able to fully comply with subsection (b) may—

"(1) submit a plan to the Secretary demonstrating that the retail electric supplier will earn sufficient Federal renewable energy credits within the next 3 calendar years which, when taken into account, will enable the retail electric supplier to meet the requirements of subsection (b) for calendar year 2012 and the subsequent calendar years involved; and

"(2) upon the approval of the plan by the Secretary, apply Federal renewable energy credits that the plan demonstrates will be earned within the next 3 calendar years to meet the requirements of subsection (b) for each calendar year involved.

The retail electric supplier must repay all of the borrowed Federal renewable energy credits by submitting an equivalent number of Federal renewable energy credits, in addition to those otherwise required under subsection (b), by calendar year 2020 or any earlier deadlines specified in the approved plan. Failure to repay the borrowed Federal

1 renewable energy credits shall subject the retail electric
2 supplier to civil penalties under subsection (i) for violation
3 of the requirements of subsection (b) for each calendar
4 year involved.

5 "(i) ENERGY EFFICIENCY CREDITS.—

6 "(1) DEFINITIONS.—In this subsection—

7 "(A) CUSTOMER FACILITY SAVINGS.—The
8 term 'customer facility savings' means a reduc-
9 tion in end-use electricity at a facility of an
10 end-use consumer of electricity served by a re-
11 tail electric supplier, as compared to—

12 "(i) consumption at the facility during
13 a base year;

14 "(ii) in the case of new equipment (re-
15 gardless of whether the new equipment re-
16 places existing equipment at the end of the
17 useful life of the existing equipment), con-
18 sumption by the new equipment of average
19 efficiency; or

20 "(iii) in the case of a new facility,
21 consumption at a reference facility.

22 "(B) ELECTRICITY SAVINGS.—The term
23 'electricity savings' means—

24 "(i) customer facility savings of elec-
25 tricity consumption adjusted to reflect any

1 associated increase in fuel consumption at
2 the facility;
3 ''(ii) reductions in distribution system
4 losses of electricity achieved by a retail
5 electricity distributor, as compared to
6 losses attributable to new or replacement
7 distribution system equipment of average
8 efficiency (as defined by the Secretary by
9 regulation);
10 ''(iii) the output of new combined heat
11 and power systems, to the extent provided
12 under paragraph (5); and
13 ''(iv) recycled energy savings.
14 ''(C) QUALIFYING ELECTRICITY SAV-
15 INGS.—The term 'qualifying electricity savings'
16 means electricity saving that meet the measure-
17 ment and verification requirements of para-
18 graph (4).
19 ''(D) RECYCLED ENERGY SAVINGS.—The
20 term 'recycled energy savings' means a reduc-
21 tion in electricity consumption that is attrib-
22 utable to electrical or mechanical power, or
23 both, produced by modifying an industrial or
24 commercial system that was in operation before

July 1, 2007, in order to recapture energy that would otherwise be wasted.

"(2) PETITION.—The Governor of a State may petition the Secretary to allow up to 25 percent of the requirements of a retail electric supplier under subsection (c) in the State to be met by submitting Federal energy efficiency credits issued pursuant to this subsection.

"(3) ISSUANCE OF CREDITS.—

"(A) The Secretary shall issue energy efficiency credits in States described in paragraph (2) in accordance with this subsection.

"(B) In accordance with regulations promulgated by the Secretary, the Secretary shall issue credits for—

"(i) qualified electricity savings achieved by a retail electric supplier in a calendar year; and

"(ii) qualified electricity savings achieved by other entities (including State agencies) if—

"(I) the measures used to achieve the qualifying electricity savings were installed or place in operation by the

entity seeking the credit or the designated agent of the entity; and

"(II) no retail electric supplier paid a substantial portion of the cost of achieving the qualified electricity savings (unless the utility has waived any entitlement to the credit).

"(4) MEASUREMENT AND VERIFICATION OF ELECTRICITY SAVINGS.—Not later than June 30, 2009, the Secretary shall promulgate regulations regarding the measurement and verification of electricity savings under this subsection, including regulations covering—

"(A) procedures and standards for defining and measuring electricity savings that will be eligible to receive credits under paragraph (3), which shall—

"(i) specify the types of energy efficiency and energy conservation that will be eligible for the credits;

"(ii) require that energy consumption for customer facilities or portions of facilities in the applicable base and current years be adjusted, as appropriate, to ac-

count for changes in weather, level of production, and building area;

"(iii) account for the useful life of electricity savings measures;

"(iv) include specified electricity savings values for specific, commonly-used efficiency measures;

"(v) specify the extent to which electricity savings attributable to measures carried out before the date of enactment of this section are eligible to receive credits under this subsection; and

"(vi) exclude electricity savings that (I) are not properly attributable to measures carried out by the entity seeking the credit; or (II) have already been credited under this section to another entity;

"(B) procedures and standards for third-party verification of reported electricity savings; and

"(C) such requirements for information, reports, and access to facilities as may be necessary to carry out this subsection.

"(5) COMBINED HEAT AND POWER.—Under regulations promulgated by the Secretary, the incre-

ment of electricity output of a new combined heat and power system that is attributable to the higher efficiency of the combined system (as compared to the efficiency of separate production of the electric and thermal outputs), shall be considered electricity savings under this subsection.

"(6) STATE DELEGATION.—On application of the Governor of a State, the Secretary may delegate to the State the administration of this subsection in the State if the Secretary determines that the State is willing and able to carry out the functions described in this subsection.

"(j) ENFORCEMENT.—A retail electric supplier that does not comply with subsection (b) shall be liable for the payment of a civil penalty. That penalty shall be calculated on the basis of the number of kilowatt-hours represented by the retail electric supplier's failure to comply with subsection (b), multiplied by the lesser of 4.5 cents (adjusted for inflation for such calendar year, based on the Gross Domestic Product Implicit Price Deflator) or 300 percent of the average market value of Federal renewable energy credits and energy efficiency credits for the compliance period. Any such penalty shall be due and payable without demand to the Secretary as provided in the regulations issued under subsection (e).

"(k) ALTERNATIVE COMPLIANCE PAYMENTS.—The Secretary shall accept payment equal to 200 percent of the average market value of Federal renewable energy credits and Federal energy efficiency credits for the applicable compliance period or 3.0 cents per kilowatt hour adjusted on January 1 of each year following calendar year 2006 based on the Gross Domestic Product Implicit Price Deflator, as a means of compliance under subsection (b)(4).

"(l) INFORMATION COLLECTION.—The Secretary may collect the information necessary to verify and audit—

"(1) the annual renewable energy generation of any retail electric supplier, Federal renewable energy credits submitted by a retail electric supplier pursuant to subsection (b)(1) and Federal energy efficiency credits;

"(2) annual electricity savings achieved pursuant to subsection (i);

"(3) the validity of Federal renewable energy credits submitted for compliance by a retail electric supplier to the Secretary; and

"(4) the quantity of electricity sales of all retail electric suppliers.

"(m) ENVIRONMENTAL SAVINGS CLAUSE.—Incremental hydropower shall be subject to all applicable environmental laws and licensing and regulatory requirements.

"(n) STATE PROGRAMS.—(1) Nothing in this section diminishes any authority of a State or political subdivision of a State to—

"(A) adopt or enforce any law or regulation respecting renewable energy or energy efficiency, including but not limited to programs that exceed the required amount of renewable energy or energy efficiency under this section, or

"(B) regulate the acquisition and disposition of Federal renewable energy credits and Federal energy efficiency credits by electric suppliers.

No law or regulation referred to in subparagraph (A) shall relieve any person of any requirement otherwise applicable under this section. The Secretary, in consultation with States having renewable energy programs and energy efficiency programs, shall preserve the integrity of such State programs, including programs that exceed the required amount of renewable energy and energy efficiency under this section, and shall facilitate coordination between the Federal program and State programs.

"(2) In the rule establishing the program under this section, the Secretary shall incorporate common elements of existing renewable energy and energy efficiency programs, including State programs, to ensure administrative ease, market transparency and effective enforcement. The Secretary shall work with the States to minimize administrative burdens and costs to retail electric suppliers.

"(o) RECOVERY OF COSTS.—An electric utility whose sales of electric energy are subject to rate regulation, including any utility whose rates are regulated by the Commission and any State regulated electric utility, shall not be denied the opportunity to recover the full amount of the prudently incurred incremental cost of renewable energy and energy efficiency obtained to comply with the requirements of subsection (b). For purposes of this subsection, the definitions in section 3 of this Act shall apply to the terms electric utility, State regulated electric utility, State agency, Commission, and State regulatory authority.

"(p) PROGRAM REVIEW.—The Secretary shall enter into a contract with the National Academy of Sciences to conduct a comprehensive evaluation of all aspects of the program established under this section, within 8 years of enactment of this section. The study shall include an evaluation of—

"(1) the effectiveness of the program in increasing the market penetration and lowering the cost of the eligible renewable energy and energy efficiency technologies;

"(2) the opportunities for any additional technologies and sources of renewable energy and energy efficiency emerging since enactment of this section;

"(3) the impact on the regional diversity and reliability of supply sources, including the power quality benefits of distributed generation;

"(4) the regional resource development relative to renewable potential and reasons for any under investment in renewable resources; and

"(5) the net cost/benefit of the renewable portfolio standard to the national and State economies, including retail power costs, economic development benefits of investment, avoided costs related to environmental and congestion mitigation investments that would otherwise have been required, impact on natural gas demand and price, effectiveness of green marketing programs at reducing the cost of renewable resources.

The Secretary shall transmit the results of the evaluation and any recommendations for modifications and improve-

1 ments to the program to Congress not later than January
2 1, 2016.

3 "(q) STATE RENEWABLE ENERGY AND ENERGY EF-
4 FICIENCY ACCOUNT PROGRAM.—(1) The Secretary shall
5 establish, not later than December 31, 2009, a State re-
6 newable energy account program.

7 "(2) All money collected by the Secretary from the
8 alternative compliance payments under subsection (k)
9 shall be deposited into the State renewable energy and en-
10 ergy efficiency account established pursuant to this sub-
11 section.

12 "(3) Proceeds deposited in the State renewable en-
13 ergy and energy efficiency account shall be used by the
14 Secretary, subject to annual appropriations, for a program
15 to provide grants to the State agency responsible for ad-
16 ministering a fund to promote renewable energy genera-
17 tion and energy efficiency for customers of the state, or
18 an alternative agency designated by the state, or if no such
19 agency exists, to the state agency developing State energy
20 conservation plans under section 363 of the Energy Policy
21 and Conservation Act (42 U.S.C. 6322) for the purposes
22 of promoting renewable energy production and providing
23 energy assistance and weatherization services to low-in-
24 come consumers.

"(4) The Secretary may issue guidelines and criteria for grants awarded under this subsection. At least 75 percent of the funds provided to each State shall be used for promoting renewable energy production and energy efficiency through grants, production incentives or other state-approved funding mechanisms. The funds shall be allocated to the States on the basis of retail electric sales subject to the Renewable Portfolio Standard under this section or through voluntary participation. State agencies receiving grants under this section shall maintain such records and evidence of compliance as the Secretary may require.".

(b) TABLE OF CONTENTS.—The table of contents for such title is amended by adding the following new item at the end:

"Sec. 610. Federal renewable portfolio standard".

(c) SUNSET.—Section 610 of such title and the item relating to such section 610 in the table of contents for such title are each repealed as of December 31, 2039.

Subtitle I—Large and Small Scale Hydropower

SEC. 9621. SENSE OF CONGRESS.

Congress recognizes and supports renewable energy. Specifically, the clean, consistent, pollution free large and small scale conventional hydropower energy.

DIVISION B—RENEWABLE ENERGY AND ENERGY CONSERVATION TAX ACT OF 2007

SEC. 10001. SHORT TITLE; AMENDMENT OF 1986 CODE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This division may be cited as the ''Renewable Energy and Energy Conservation Tax Act of 2007''.

(b) AMENDMENT OF 1986 CODE.—Except as otherwise expressly provided, whenever in this division an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.

(c) TABLE OF CONTENTS.—The table of contents for this division is as follows:

Sec. 10001. Short title; amendment of 1986 Code; table of contents.

TITLE XI—PRODUCTION INCENTIVES

Sec. 11001. Extension and modification of renewable energy credit.
Sec. 11002. Production credit for electricity produced from marine renewables.
Sec. 11003. Extension and modification of energy credit.
Sec. 11004. New clean renewable energy bonds.
Sec. 11005. Extension and modification of special rule to implement FERC and State electric restructuring policy.
Sec. 11006. Repeal of dollar limitation and allowance against alternative minimum tax for residential solar and fuel cell property credit.

TITLE XII—CONSERVATION

Subtitle A—Transportation

Sec. 12001. Credit for plug-in hybrid vehicles.
Sec. 12002. Extension and modification of alternative fuel vehicle refueling property credit.

Sec. 12003. Extension and modification of credits for biodiesel and renewable diesel.
Sec. 12004. Credit for production of cellulosic alcohol.
Sec. 12005. Extension of transportation fringe benefit to bicycle commuters.
Sec. 12006. Modification of limitation on automobile depreciation.
Sec. 12007. Restructuring of New York Liberty Zone tax credits.

Subtitle B—Other Conservation Provisions

Sec. 12011. Qualified energy conservation bonds.
Sec. 12012. Qualified residential energy efficiency assistance bonds.
Sec. 12013. Extension of energy efficient commercial buildings deduction.
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TITLE XIII—REVENUE PROVISIONS

Subtitle A—Denial of Oil and Gas Tax Benefits

Sec. 13001. Denial of deduction for income attributable to domestic production of oil, natural gas, or primary products thereof.
Sec. 13002. 7-year amortization of geological and geophysical expenditures for certain major integrated oil companies.
Sec. 13003. Clarification of determination of foreign oil and gas extraction income.

Subtitle B—Clarification of Eligibility for Certain Fuel Credits

Sec. 13011. Clarification of eligibility for renewable diesel credit.
Sec. 13012. Clarification that credits for fuel are designed to provide an incentive for United States production.

TITLE XIV—OTHER PROVISIONS

Subtitle A—Studies

Sec. 14001. Carbon audit of the tax code.
Sec. 14002. Comprehensive study of biofuels.

Subtitle B—Application of Certain Labor Standards on Projects Financed Under Tax Credit Bonds

Sec. 14011. Application of certain labor standards on projects financed under tax credit bonds.

TITLE XI—PRODUCTION INCENTIVES

SEC. 11001. EXTENSION AND MODIFICATION OF RENEWABLE ENERGY CREDIT.

(a) EXTENSION OF CREDIT.—Each of the following provisions of section 45(d) (relating to qualified facilities) is amended by striking ''January 1, 2009'' and inserting ''January 1, 2013'':

(1) Paragraph (1).

(2) Clauses (i) and (ii) of paragraph (2)(A).

(3) Clauses (i)(I) and (ii) of paragraph (3)(A).

(4) Paragraph (4).

(5) Paragraph (5).

(6) Paragraph (6).

(7) Paragraph (7).

(8) Subparagraphs (A) and (B) of paragraph (9).

(b) MODIFICATION OF CREDIT PHASEOUT.—

(1) REPEAL OF PHASEOUT.—Subsection (b) of section 45 is amended—

(A) by striking paragraph (1), and

(B) by striking ''the 8 cent amount in paragraph (1),'' in paragraph (2) thereof.

(2) LIMITATION BASED ON INVESTMENT IN FACILITY.—Subsection (b) of section 45 is amended by

inserting before paragraph (2) the following new paragraph:

"(1) LIMITATION BASED ON INVESTMENT IN FACILITY.—

"(A) IN GENERAL.—In the case of any qualified facility originally placed in service after December 31, 2008, the amount of the credit determined under subsection (a) for any taxable year with respect to electricity produced at such facility shall not exceed the product of—

"(i) the applicable percentage with respect to such facility, multiplied by

"(ii) the eligible basis of such facility.

"(B) CARRYFORWARD OF UNUSED LIMITATION AND EXCESS CREDIT.—

"(i) UNUSED LIMITATION.—If the limitation imposed under subparagraph (A) with respect to any facility for any taxable year exceeds the credit determined under subsection (a) (determined without regard to this paragraph) with respect to such facility for such taxable year, the limitation imposed under subparagraph (A) with respect to such facility for the succeeding

1 taxable year shall be increased by the
2 amount of such excess.
3 "(ii) EXCESS CREDIT.—If the credit
4 determined under subsection (a) (deter-
5 mined without regard to this paragraph)
6 with respect to any facility for any taxable
7 year exceeds the limitation imposed under
8 subparagraph (A) with respect to such fa-
9 cility for such taxable year, the credit de-
10 termined under subsection (a) with respect
11 to such facility for the succeeding taxable
12 year (determined before the application of
13 subparagraph (A) for such succeeding tax-
14 able year) shall be increased by the
15 amount of such excess. With respect to any
16 facility, no amount may carried forward
17 under this clause to any taxable year be-
18 ginning after the 10-year period described
19 in subsection (a)(2)(A)(ii) with respect to
20 such facility.
21 "(C) APPLICABLE PERCENTAGE.—For
22 purposes of this paragraph—
23 "(i) IN GENERAL.—The term 'applica-
24 ble percentage' means, with respect to any
25 facility, the appropriate percentage pre-

scribed by the Secretary for the month in which such facility is originally placed in service.

"(ii) METHOD OF PRESCRIBING PERCENTAGES.—The percentages prescribed by the Secretary for any month under clause (i) shall be percentages which yield over a 10-year period amounts of limitation under subparagraph (A) which have a present value equal to 35 percent of the eligible basis of the facility.

"(iii) METHOD OF DISCOUNTING.—The present value under clause (ii) shall be determined—

"(I) as of the last day of the 1st year of the 10-year period referred to in clause (ii),

"(II) by using a discount rate equal to the average annual interest rate of tax-exempt obligations having a term of 10 years or more which are issued during the month preceding the month for which the percentage is being prescribed, and

"(III) by taking into account the limitation under subparagraph (A) for any year on the last day of such year.

"(D) ELIGIBLE BASIS.—For purposes of this paragraph, the term 'eligible basis' means, with respect to any facility, the basis of such facility determined as of the time that such facility is originally placed in service.

"(E) SPECIAL RULE FOR FIRST AND LAST YEAR OF CREDIT PERIOD.—In the case of any taxable year any portion of which is not within the 10-year period described in subsection (a)(2)(A)(ii) with respect to any facility, the amount of the limitation under subparagraph (A) with respect to such facility shall be reduced by an amount which bears the same ratio to the amount of such limitation (determined without regard to this subparagraph) as such portion of the taxable year which is not within such period bears to the entire taxable year.".

(c) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to property originally placed in service after December 31, 2008.

(2) REPEAL OF CREDIT PHASEOUT.—The amendments made by subsection (b)(1) shall apply to taxable years ending after December 31, 2008.

SEC. 11002. PRODUCTION CREDIT FOR ELECTRICITY PRODUCED FROM MARINE RENEWABLES.

(a) IN GENERAL.—Paragraph (1) of section 45(c) (relating to resources) is amended by striking ''and'' at the end of subparagraph (G), by striking the period at the end of subparagraph (H) and inserting '', and'', and by adding at the end the following new subparagraph:

''(I) marine and hydrokinetic renewable energy.''.

(b) MARINE RENEWABLES.—Subsection (c) of section 45 is amended by adding at the end the following new paragraph:

''(10) MARINE AND HYDROKINETIC RENEWABLE ENERGY.—

''(A) IN GENERAL.—The term 'marine and hydrokinetic renewable energy' means energy derived from—

''(i) waves, tides, and currents in oceans, estuaries, and tidal areas,

''(ii) free flowing water in rivers, lakes, and streams,

"(iii) free flowing water in an irrigation system, canal, or other man-made channel, including projects that utilize non-mechanical structures to accelerate the flow of water for electric power production purposes, or

"(iv) differentials in ocean temperature (ocean thermal energy conversion).

"(B) EXCEPTIONS.—Such term shall not include any energy which is derived from any source which utilizes a dam, diversionary structure (except as provided in subparagraph (A)(iii)), or impoundment for electric power production purposes.".

(c) DEFINITION OF FACILITY.—Subsection (d) of section 45 is amended by adding at the end the following new paragraph:

"(11) MARINE AND HYDROKINETIC RENEWABLE ENERGY FACILITIES.—In the case of a facility producing electricity from marine and hydrokinetic renewable energy, the term 'qualified facility' means any facility owned by the taxpayer—

"(A) which has a nameplate capacity rating of at least 150 kilowatts, and

"(B) which is originally placed in service on or after the date of the enactment of this paragraph and before January 1, 2013.".

(d) CREDIT RATE.—Subparagraph (A) of section 45(b)(4) is amended by striking "or (9)" and inserting "(9), or (11)".

(e) COORDINATION WITH SMALL IRRIGATION POWER.—Paragraph (5) of section 45(d), as amended by this Act, is amended by striking "January 1, 2013" and inserting "the date of the enactment of paragraph (11)".

(f) EFFECTIVE DATE.—The amendments made by this section shall apply to electricity produced and sold after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 11003. EXTENSION AND MODIFICATION OF ENERGY CREDIT.

(a) EXTENSION OF CREDIT.—

(1) SOLAR ENERGY PROPERTY.—Paragraphs (2)(A)(i)(II) and (3)(A)(ii) of section 48(a) (relating to energy credit) are each amended by striking "January 1, 2009" and inserting "January 1, 2017".

(2) FUEL CELL PROPERTY.—Subparagraph (E) of section 48(c)(1) (relating to qualified fuel cell

property) is amended by striking ''December 31, 2008'' and inserting ''December 31, 2016''.

(b) ALLOWANCE OF ENERGY CREDIT AGAINST ALTERNATIVE MINIMUM TAX.—Subparagraph (B) of section 38(c)(4) (relating to specified credits) is amended by striking ''and'' at the end of clause (iii), by striking the period at the end of clause (iv) and inserting '', and'', and by adding at the end the following new clause:

''(v) the credit determined under section 46 to the extent that such credit is attributable to the energy credit determined under section 48.''.

(c) INCREASE OF CREDIT LIMITATION FOR FUEL CELL PROPERTY.—Subparagraph (B) of section 48(c)(1) is amended by striking ''$500'' and inserting ''$1,500''.

(d) PUBLIC ELECTRIC UTILITY PROPERTY TAKEN INTO ACCOUNT.—

(1) IN GENERAL.—Paragraph (3) of section 48(a) is amended by striking the second sentence thereof.

(2) CONFORMING AMENDMENTS.—

(A) Paragraph (1) of section 48(c) is amended by striking subparagraph (D) and redesignating subparagraph (E) as subparagraph (D).

(B) Paragraph (2) of section 48(c) is amended by striking subparagraph (D) and redesignating subparagraph (E) as subparagraph (D).

(e) CLERICAL AMENDMENTS.—Paragraphs (1)(B) and (2)(B) of section 48(c) are each amended by striking ''paragraph (1)'' and inserting ''subsection (a)''.

(f) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as otherwise provided in this subsection, the amendments made by this section shall take effect on the date of the enactment of this Act.

(2) ALLOWANCE AGAINST ALTERNATIVE MINIMUM TAX.—The amendments made by subsection (b) shall apply to credits determined under section 46 of the Internal Revenue Code of 1986 in taxable years beginning after the date of the enactment of this Act and to carrybacks of such credits.

(3) INCREASE IN LIMITATION FOR FUEL CELL PROPERTY.—The amendment made by subsection (c) shall apply to periods after the date of the enactment of this Act, in taxable years ending after such date, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in

effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

(4) PUBLIC ELECTRIC UTILITY PROPERTY.—The amendments made by subsection (d) shall apply to periods after June 20, 2007, in taxable years ending after such date, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

SEC. 11004. NEW CLEAN RENEWABLE ENERGY BONDS.

(a) IN GENERAL.—Part IV of subchapter A of chapter 1 (relating to credits against tax) is amended by adding at the end the following new subpart:

"Subpart I—Qualified Tax Credit Bonds

"Sec. 54A. Credit to holders of qualified tax credit bonds.
"Sec. 54B. New clean renewable energy bonds.

"SEC. 54A. CREDIT TO HOLDERS OF QUALIFIED TAX CREDIT BONDS.

"(a) ALLOWANCE OF CREDIT.—If a taxpayer holds a qualified tax credit bond on one or more credit allowance dates of the bond during any taxable year, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of the credits determined under subsection (b) with respect to such dates.

"(b) AMOUNT OF CREDIT.—

"(1) IN GENERAL.—The amount of the credit determined under this subsection with respect to any credit allowance date for a qualified tax credit bond is 25 percent of the annual credit determined with respect to such bond.

"(2) ANNUAL CREDIT.—The annual credit determined with respect to any qualified tax credit bond is the product of—

"(A) the applicable credit rate, multiplied by

"(B) the outstanding face amount of the bond.

"(3) APPLICABLE CREDIT RATE.—For purposes of paragraph (2), the applicable credit rate is the rate which the Secretary estimates will permit the issuance of qualified tax credit bonds with a specified maturity or redemption date without discount and without interest cost to the qualified issuer. The applicable credit rate with respect to any qualified tax credit bond shall be determined as of the first day on which there is a binding, written contract for the sale or exchange of the bond.

"(4) SPECIAL RULE FOR ISSUANCE AND REDEMPTION.—In the case of a bond which is issued

during the 3-month period ending on a credit allowance date, the amount of the credit determined under this subsection with respect to such credit allowance date shall be a ratable portion of the credit otherwise determined based on the portion of the 3-month period during which the bond is outstanding. A similar rule shall apply when the bond is redeemed or matures.

"(c) LIMITATION BASED ON AMOUNT OF TAX.—

"(1) IN GENERAL.—The credit allowed under subsection (a) for any taxable year shall not exceed the excess of—

"(A) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

"(B) the sum of the credits allowable under this part (other than subpart C and this subpart).

"(2) CARRYOVER OF UNUSED CREDIT.—If the credit allowable under subsection (a) exceeds the limitation imposed by paragraph (1) for such taxable year, such excess shall be carried to the succeeding taxable year and added to the credit allowable under subsection (a) for such taxable year (determined be-

fore the application of paragraph (1) for such succeeding taxable year).

"(d) QUALIFIED TAX CREDIT BOND.—For purposes of this section—

"(1) QUALIFIED TAX CREDIT BOND.—The term 'qualified tax credit bond' means a new clean renewable energy bond which is part of an issue that meets the requirements of paragraphs (2), (3), (4), (5), and (6).

"(2) SPECIAL RULES RELATING TO EXPENDITURES.—

"(A) IN GENERAL.—An issue shall be treated as meeting the requirements of this paragraph if, as of the date of issuance, the issuer reasonably expects—

"(i) 100 percent or more of the available project proceeds to be spent for 1 or more qualified purposes within the 3-year period beginning on such date of issuance, and

"(ii) a binding commitment with a third party to spend at least 10 percent of such available project proceeds will be incurred within the 6-month period beginning on such date of issuance.

"(B) FAILURE TO SPEND REQUIRED AMOUNT OF BOND PROCEEDS WITHIN 3 YEARS.—

"(i) IN GENERAL.—To the extent that less than 100 percent of the available project proceeds of the issue are expended by the close of the expenditure period for 1 or more qualified purposes, the issuer shall redeem all of the nonqualified bonds within 90 days after the end of such period. For purposes of this paragraph, the amount of the nonqualified bonds required to be redeemed shall be determined in the same manner as under section 142.

"(ii) EXPENDITURE PERIOD.—For purposes of this subpart, the term 'expenditure period' means, with respect to any issue, the 3-year period beginning on the date of issuance. Such term shall include any extension of such period under clause (iii).

"(iii) EXTENSION OF PERIOD.—Upon submission of a request prior to the expiration of the expenditure period (determined without regard to any extension under this

clause), the Secretary may extend such period if the issuer establishes that the failure to expend the proceeds within the original expenditure period is due to reasonable cause and the expenditures for qualified purposes will continue to proceed with due diligence.

"(C) QUALIFIED PURPOSE.—For purposes of this paragraph, the term 'qualified purpose' means a purpose specified in section 54B(a)(1).

"(D) REIMBURSEMENT.—For purposes of this subtitle, available project proceeds of an issue shall be treated as spent for a qualified purpose if such proceeds are used to reimburse the issuer for amounts paid for a qualified purpose after the date that the Secretary makes an allocation of bond limitation with respect to such issue, but only if—

"(i) prior to the payment of the original expenditure, the issuer declared its intent to reimburse such expenditure with the proceeds of a qualified tax credit bond,

"(ii) not later than 60 days after payment of the original expenditure, the issuer adopts an official intent to reimburse the

original expenditure with such proceeds, and

"(iii) the reimbursement is made not later than 18 months after the date the original expenditure is paid.

"(3) REPORTING.—An issue shall be treated as meeting the requirements of this paragraph if the issuer of qualified tax credit bonds submits reports similar to the reports required under section 149(e).

"(4) SPECIAL RULES RELATING TO ARBITRAGE.—

"(A) IN GENERAL.—An issue shall be treated as meeting the requirements of this paragraph if the issuer satisfies the requirements of section 148 with respect to the proceeds of the issue.

"(B) SPECIAL RULE FOR INVESTMENTS DURING EXPENDITURE PERIOD.—An issue shall not be treated as failing to meet the requirements of subparagraph (A) by reason of any investment of available project proceeds during the expenditure period.

"(C) SPECIAL RULE FOR RESERVE FUNDS.—An issue shall not be treated as failing to meet the requirements of subparagraph

(A) by reason of any fund which is expected to be used to repay such issue if—

"(i) such fund is funded at a rate not more rapid than equal annual installments,

"(ii) such fund is funded in a manner that such fund will not exceed the amount necessary to repay the issue if invested at the maximum rate permitted under clause (iii), and

"(iii) the yield on such fund is not greater than the discount rate determined under paragraph (5)(B) with respect to the issue.

"(5) MATURITY LIMITATION.—

"(A) IN GENERAL.—An issue shall not be treated as meeting the requirements of this paragraph if the maturity of any bond which is part of such issue exceeds the maximum term determined by the Secretary under subparagraph (B).

"(B) MAXIMUM TERM.—During each calendar month, the Secretary shall determine the maximum term permitted under this paragraph for bonds issued during the following calendar month. Such maximum term shall be the term

which the Secretary estimates will result in the present value of the obligation to repay the principal on the bond being equal to 50 percent of the face amount of such bond. Such present value shall be determined using as a discount rate the average annual interest rate of tax-exempt obligations having a term of 10 years or more which are issued during the month. If the term as so determined is not a multiple of a whole year, such term shall be rounded to the next highest whole year.

"(6) PROHIBITION ON FINANCIAL CONFLICTS OF INTEREST.—An issue shall be treated as meeting the requirements of this paragraph if the issuer certifies that—

"(A) applicable State and local law requirements governing conflicts of interest are satisfied with respect to such issue, and

"(B) if the Secretary prescribes additional conflicts of interest rules governing the appropriate Members of Congress, Federal, State, and local officials, and their spouses, such additional rules are satisfied with respect to such issue.

"(e) OTHER DEFINITIONS.—For purposes of this subchapter—

"(1) CREDIT ALLOWANCE DATE.—The term 'credit allowance date' means—

"(A) March 15,

"(B) June 15,

"(C) September 15, and

"(D) December 15.

Such term includes the last day on which the bond is outstanding.

"(2) BOND.—The term 'bond' includes any obligation.

"(3) STATE.—The term 'State' includes the District of Columbia and any possession of the United States.

"(4) AVAILABLE PROJECT PROCEEDS.—The term 'available project proceeds' means—

"(A) the excess of—

"(i) the proceeds from the sale of an issue, over

"(ii) the issuance costs financed by the issue (to the extent that such costs do not exceed 2 percent of such proceeds), and

"(B) the proceeds from any investment of the excess described in subparagraph (A).

"(f) CREDIT TREATED AS INTEREST.—For purposes of this subtitle, the credit determined under subsection (a) shall be treated as interest which is includible in gross income.

"(g) S CORPORATIONS AND PARTNERSHIPS.—In the case of a tax credit bond held by an S corporation or partnership, the allocation of the credit allowed by this section to the shareholders of such corporation or partners of such partnership shall be treated as a distribution.

"(h) BONDS HELD BY REGULATED INVESTMENT COMPANIES AND REAL ESTATE INVESTMENT TRUSTS.—If any qualified tax credit bond is held by a regulated investment company or a real estate investment trust, the credit determined under subsection (a) shall be allowed to shareholders of such company or beneficiaries of such trust (and any gross income included under subsection (f) with respect to such credit shall be treated as distributed to such shareholders or beneficiaries) under procedures prescribed by the Secretary.

"(i) CREDITS MAY BE STRIPPED.—Under regulations prescribed by the Secretary—

"(1) IN GENERAL.—There may be a separation (including at issuance) of the ownership of a quali-

fied tax credit bond and the entitlement to the credit under this section with respect to such bond. In case of any such separation, the credit under this section shall be allowed to the person who on the credit allowance date holds the instrument evidencing the entitlement to the credit and not to the holder of the bond.

"(2) CERTAIN RULES TO APPLY.—In the case of a separation described in paragraph (1), the rules of section 1286 shall apply to the qualified tax credit bond as if it were a stripped bond and to the credit under this section as if it were a stripped coupon.

"SEC. 54B. NEW CLEAN RENEWABLE ENERGY BONDS.

"(a) NEW CLEAN RENEWABLE ENERGY BOND.—For purposes of this subpart, the term 'new clean renewable energy bond' means any bond issued as part of an issue if—

"(1) 100 percent of the available project proceeds of such issue are to be used for capital expenditures incurred by public power providers or cooperative electric companies for one or more qualified renewable energy facilities,

"(2) the bond is issued by a qualified issuer, and

"(3) the issuer designates such bond for purposes of this section.

"(b) REDUCED CREDIT AMOUNT.—The annual credit determined under section 54A(b) with respect to any new clean renewable energy bond shall be 70 percent of the amount so determined without regard to this subsection.

"(c) LIMITATION ON AMOUNT OF BONDS DESIGNATED.—

"(1) IN GENERAL.—The maximum aggregate face amount of bonds which may be designated under subsection (a) by any issuer shall not exceed the limitation amount allocated under this subsection to such issuer.

"(2) NATIONAL LIMITATION ON AMOUNT OF BONDS DESIGNATED.—There is a national new clean renewable energy bond limitation of $2,000,000,000 which shall be allocated by the Secretary as provided in paragraph (3), except that—

"(A) not more than 60 percent thereof may be allocated to qualified projects of public power providers, and

"(B) not more than 40 percent thereof may be allocated to qualified projects of cooperative electric companies.

"(3) METHOD OF ALLOCATION.—

"(A) ALLOCATION AMONG PUBLIC POWER PROVIDERS.—After the Secretary determines the qualified projects of public power providers which are appropriate for receiving an allocation of the national new clean renewable energy bond limitation, the Secretary shall, to the maximum extent practicable, make allocations among such projects in such manner that the amount allocated to each such project bears the same ratio to the cost of such project as the limitation under subparagraph (2)(A) bears to the cost of all such projects.

"(B) ALLOCATION AMONG COOPERATIVE ELECTRIC COMPANIES.—The Secretary shall make allocations of the amount of the national new clean renewable energy bond limitation described in paragraph (2)(B) among qualified projects of cooperative electric companies in such manner as the Secretary determines appropriate.

"(d) DEFINITIONS.—For purposes of this section—

"(1) QUALIFIED RENEWABLE ENERGY FACILITY.—The term 'qualified renewable energy facility' means a qualified facility (as determined under section 45(d) without regard to paragraphs (8) and

(10) thereof and to any placed in service date) owned by a public power provider or a cooperative electric company.

''(2) PUBLIC POWER PROVIDER.—The term 'public power provider' means a State utility with a service obligation, as such terms are defined in section 217 of the Federal Power Act (as in effect on the date of the enactment of this paragraph).

''(3) COOPERATIVE ELECTRIC COMPANY.—The term 'cooperative electric company' means a mutual or cooperative electric company described in section 501(c)(12) or section 1381(a)(2)(C).

''(4) CLEAN RENEWABLE ENERGY BOND LENDER.—The term 'clean renewable energy bond lender' means a lender which is a cooperative which is owned by, or has outstanding loans to, 100 or more cooperative electric companies and is in existence on February 1, 2002, and shall include any affiliated entity which is controlled by such lender.

''(5) QUALIFIED ISSUER.—The term 'qualified issuer' means a public power provider, a cooperative electric company, a clean renewable energy bond lender, or a not-for-profit electric utility which has received a loan or loan guarantee under the Rural Electrification Act.''.

(b) REPORTING.—Subsection (d) of section 6049 (relating to returns regarding payments of interest) is amended by adding at the end the following new paragraph:

"(9) REPORTING OF CREDIT ON QUALIFIED TAX CREDIT BONDS.—

"(A) IN GENERAL.—For purposes of subsection (a), the term 'interest' includes amounts includible in gross income under section 54A and such amounts shall be treated as paid on the credit allowance date (as defined in section 54A(e)(1)).

"(B) REPORTING TO CORPORATIONS, ETC.—Except as otherwise provided in regulations, in the case of any interest described in subparagraph (A) of this paragraph, subsection (b)(4) of this section shall be applied without regard to subparagraphs (A), (H), (I), (J), (K), and (L)(i).

"(C) REGULATORY AUTHORITY.—The Secretary may prescribe such regulations as are necessary or appropriate to carry out the purposes of this paragraph, including regulations which require more frequent or more detailed reporting.".

(c) CONFORMING AMENDMENTS.—

(1) Sections 54(c)(2) and 1400N(l)(3)(B) are each amended by striking "subpart C" and inserting "subparts C and I".

(2) Section 1397E(c)(2) is amended by striking "subpart H" and inserting "subparts H and I".

(3) Section 6401(b)(1) is amended by striking "and H" and inserting "H, and I".

(4) The heading of subpart H of part IV of subchapter A of chapter 1 is amended by striking "**Certain Bonds**" and inserting "**Clean Renewable Energy Bonds**".

(5) The table of subparts for part IV of subchapter A of chapter 1 is amended by striking the item relating to subpart H and inserting the following new items:

"SUBPART H. NONREFUNDABLE CREDIT TO HOLDERS OF CLEAN RENEWABLE ENERGY BONDS.

"SUBPART I. QUALIFIED TAX CREDIT BONDS.".

(d) EFFECTIVE DATES.—The amendments made by this section shall apply to obligations issued after the date of the enactment of this Act.

SEC. 11005. EXTENSION AND MODIFICATION OF SPECIAL RULE TO IMPLEMENT FERC AND STATE ELECTRIC RESTRUCTURING POLICY.

(a) EXTENSION FOR QUALIFIED ELECTRIC UTILITIES.—

(1) IN GENERAL.—Paragraph (3) of section 451(i) (relating to special rule for sales or dispositions to implement Federal Energy Regulatory Commission or State electric restructuring policy) is amended by striking ''before January 1, 2008,'' and inserting ''before January 1, 2010, by a qualified electric utility,''.

(2) QUALIFIED ELECTRIC UTILITY.—Subsection (i) of section 451 is amended by redesignating paragraphs (6) through (10) as paragraphs (7) through (11), respectively, and by inserting after paragraph (5) the following new paragraph:

''(6) QUALIFIED ELECTRIC UTILITY.—For purposes of this subsection, the term 'qualified electric utility' means—

''(A) an electric utility (as defined in section 3(22) of the Federal Power Act (16 U.S.C. 796(22))), and

''(B) any person in the same holding company system (as defined in section 1262(9) of the Public Utility Holding Company Act of

2005 (42 U.S.C. 16451(9))) as an electric utility referred to subparagraph (A).''.

(b) EXTENSION OF PERIOD FOR TRANSFER OF OPERATIONAL CONTROL AUTHORIZED BY FERC.—Clause (ii) of section 451(i)(4)(B) is amended by striking ''December 31, 2007'' and inserting ''the date which is 4 years after the close of the taxable year in which the transaction occurs''.

(c) PROPERTY LOCATED OUTSIDE THE UNITED STATES NOT TREATED AS EXEMPT UTILITY PROPERTY.—Paragraph (5) of section 451(i) is amended by adding at the end the following new subparagraph:

''(C) EXCEPTION FOR PROPERTY LOCATED OUTSIDE THE UNITED STATES.—The term 'exempt utility property' shall not include any property which is located outside the United States.''.

(d) EFFECTIVE DATES.—

(1) EXTENSION.—The amendment made by subsection (a) shall apply to transactions after December 31, 2007.

(2) TRANSFERS OF OPERATIONAL CONTROL.—The amendment made by subsection (b) shall take effect as if included in section 909 of the American Jobs Creation Act of 2004.

(3) EXCEPTION FOR PROPERTY LOCATED OUTSIDE THE UNITED STATES.—The amendment made by subsection (c) shall apply to transactions after the date of the enactment of this Act.

SEC. 11006. REPEAL OF DOLLAR LIMITATION AND ALLOWANCE AGAINST ALTERNATIVE MINIMUM TAX FOR RESIDENTIAL SOLAR AND FUEL CELL PROPERTY CREDIT.

(a) REPEAL OF MAXIMUM DOLLAR LIMITATION.—

(1) IN GENERAL.—Subsection (b) of section 25D (relating to limitations) is amended to read as follows:

''(b) CERTIFICATION OF SOLAR WATER HEATING PROPERTY.—No credit shall be allowed under this section for an item of property described in subsection (d)(1) unless such property is certified for performance by the nonprofit Solar Rating Certification Corporation or a comparable entity endorsed by the government of the State in which such property is installed.''.

(2) CONFORMING AMENDMENTS.—

(A) Subsection (e) of section 25D is amended by striking paragraph (4) and by redesignating paragraphs (5) through (9) as paragraphs (4) through (8), respectively.

(B) Paragraph (1) of section 25C(e) is amended by striking ''(8), and (9)'' and inserting ''and (8) (and paragraph (4) as in effect before its repeal by the Renewable Energy and Energy Conservation Tax Act of 2007)''.

(b) CREDIT ALLOWED AGAINST ALTERNATIVE MINIMUM TAX.—

(1) IN GENERAL.—Subsection (c) of section 25D is amended to read as follows:

''(c) LIMITATION BASED ON AMOUNT OF TAX; CARRYFORWARD OF UNUSED CREDIT.—

''(1) LIMITATION BASED ON AMOUNT OF TAX.—In the case of a taxable year to which section 26(a)(2) does not apply, the credit allowed under subsection (a) for the taxable year shall not exceed the excess of—

''(A) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

''(B) the sum of the credits allowable under this subpart (other than this section) and section 27 for the taxable year.

''(2) CARRYFORWARD OF UNUSED CREDIT.—

''(A) RULE FOR YEARS IN WHICH ALL PERSONAL CREDITS ALLOWED AGAINST REG-

ULAR AND ALTERNATIVE MINIMUM TAX.—In the case of a taxable year to which section 26(a)(2) applies, if the credit allowable under subsection (a) exceeds the limitation imposed by section 26(a)(2) for such taxable year reduced by the sum of the credits allowable under this subpart (other than this section), such excess shall be carried to the succeeding taxable year and added to the credit allowable under subsection (a) for such succeeding taxable year.

"(B) RULE FOR OTHER YEARS.—In the case of a taxable year to which section 26(a)(2) does not apply, if the credit allowable under subsection (a) exceeds the limitation imposed by paragraph (1) for such taxable year, such excess shall be carried to the succeeding taxable year and added to the credit allowable under subsection (a) for such succeeding taxable year.".

(2) CONFORMING AMENDMENTS.—

(A) Section 23(b)(4)(B) is amended by inserting "and section 25D" after "this section".

(B) Section 24(b)(3)(B) is amended by striking "and 25B" and inserting ", 25B, and 25D".

(C) Section 25B(g)(2) is amended by striking "section 23" and inserting "sections 23 and 25D".

(D) Section 26(a)(1) is amended by striking "and 25B" and inserting "25B, and 25D".

(c) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as otherwise provided in this subsection, the amendments made by this section shall apply to expenditures made after the date of the enactment of this Act.

(2) ALLOWANCE AGAINST ALTERNATIVE MINIMUM TAX.—

(A) IN GENERAL.—The amendments made by subsection (b) shall apply to taxable years beginning after the date of the enactment of this Act.

(B) APPLICATION OF EGTRRA SUNSET.—The amendments made by subparagraphs (A) and (B) of subsection (b)(2) shall be subject to title IX of the Economic Growth and Tax Relief Reconciliation Act of 2001 in the same manner as the provisions of such Act to which such amendments relate.

TITLE XII—CONSERVATION

Subtitle A—Transportation

SEC. 12001. CREDIT FOR PLUG-IN HYBRID VEHICLES.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to other credits) is amended by adding at the end the following new section:

"SEC. 30D. PLUG-IN HYBRID VEHICLES.

"(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of the credit amounts determined under subsection (b) with respect to each qualified plug-in hybrid vehicle placed in service by the taxpayer during the taxable year.

"(b) PER VEHICLE DOLLAR LIMITATION.—

"(1) IN GENERAL.—The amount determined under this subsection with respect to any qualified plug-in hybrid vehicle is the sum of the amounts determined under paragraphs (2) and (3) with respect to such vehicle.

"(2) BASE AMOUNT.—The amount determined under this paragraph is $4,000.

"(3) BATTERY CAPACITY.—In the case of vehicle which draws propulsion energy from a battery with not less than 5 kilowatt hours of capacity, the amount determined under this paragraph is $200,

plus $200 for each kilowatt hour of capacity in excess of 5 kilowatt hours. The amount determined under this paragraph shall not exceed $2,000.

"(c) APPLICATION WITH OTHER CREDITS.—

"(1) BUSINESS CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.—So much of the credit which would be allowed under subsection (a) for any taxable year (determined without regard to this subsection) that is attributable to property of a character subject to an allowance for depreciation shall be treated as a credit listed in section 38(b) for such taxable year (and not allowed under subsection (a)).

"(2) PERSONAL CREDIT.—

"(A) IN GENERAL.—For purposes of this title, the credit allowed under subsection (a) for any taxable year (determined after application of paragraph (1)) shall be treated as a credit allowable under subpart A for such taxable year.

"(B) LIMITATION BASED ON AMOUNT OF TAX.—In the case of a taxable year to which section 26(a)(2) does not apply, the credit allowed under subsection (a) for any taxable year (determined after application of paragraph (1)) shall not exceed the excess of—

"(i) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

"(ii) the sum of the credits allowable under subpart A (other than this section and sections 23 and 25D) and section 27 for the taxable year.

"(d) QUALIFIED PLUG-IN HYBRID VEHICLE.—For purposes of this section—

"(1) IN GENERAL.—The term 'qualified plug-in hybrid vehicle' means a motor vehicle (as defined in section 30(c)(2))—

"(A) the original use of which commences with the taxpayer,

"(B) which is acquired for use or lease by the taxpayer and not for resale,

"(C) which is made by a manufacturer,

"(D) which has a gross vehicle weight rating of less than 14,000 pounds,

"(E) which has received a certificate of conformity under the Clean Air Act and meets or exceeds the Bin 5 Tier II emission standard established in regulations prescribed by the Administrator of the Environmental Protection

Agency under section 202(i) of the Clean Air Act for that make and model year vehicle,

"(F) which is propelled to a significant extent by an electric motor which draws electricity from a battery which—

"(i) has a capacity of not less than 4 kilowatt hours, and

"(ii) is capable of being recharged from an external source of electricity, and

"(G) which either—

"(i) is also propelled to a significant extent by other than an electric motor, or

"(ii) has a significant onboard source of electricity which also recharges the battery referred to in subparagraph (F).

"(2) EXCEPTION.—The term 'qualified plug-in hybrid vehicle' shall not include any vehicle which is not a passenger automobile or light truck if such vehicle has a gross vehicle weight rating of less than 8,500 pounds.

"(3) OTHER TERMS.—The terms 'passenger automobile', 'light truck', and 'manufacturer' have the meanings given such terms in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administra-

tion of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

"(4) BATTERY CAPACITY.—The term 'capacity' means, with respect to any battery, the quantity of electricity which the battery is capable of storing, expressed in kilowatt hours, as measured from a 100 percent state of charge to a 0 percent state of charge.

"(e) LIMITATION ON NUMBER OF QUALIFIED PLUG-IN HYBRID VEHICLES ELIGIBLE FOR CREDIT.—

"(1) IN GENERAL.—In the case of a qualified plug-in hybrid vehicle sold during the phaseout period, only the applicable percentage of the credit otherwise allowable under subsection (a) shall be allowed.

"(2) PHASEOUT PERIOD.—For purposes of this subsection, the phaseout period is the period beginning with the second calendar quarter following the calendar quarter which includes the first date on which the number of qualified plug-in hybrid vehicles manufactured by the manufacturer of the vehicle referred to in paragraph (1) sold for use in the United States after the date of the enactment of this section, is at least 60,000.

"(3) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the applicable percentage is—

"(A) 50 percent for the first 2 calendar quarters of the phaseout period,

"(B) 25 percent for the 3d and 4th calendar quarters of the phaseout period, and

"(C) 0 percent for each calendar quarter thereafter.

"(4) CONTROLLED GROUPS.—Rules similar to the rules of section 30B(f)(4) shall apply for purposes of this subsection.

"(f) SPECIAL RULES.—

"(1) BASIS REDUCTION.—The basis of any property for which a credit is allowable under subsection (a) shall be reduced by the amount of such credit (determined without regard to subsection (c)).

"(2) RECAPTURE.—The Secretary shall, by regulations, provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any property which ceases to be property eligible for such credit.

"(3) PROPERTY USED OUTSIDE UNITED STATES, ETC., NOT QUALIFIED.—No credit shall be allowed under subsection (a) with respect to any property referred to in section 50(b)(1) or with re-

spect to the portion of the cost of any property taken into account under section 179.

"(4) ELECTION NOT TO TAKE CREDIT.—No credit shall be allowed under subsection (a) for any vehicle if the taxpayer elects to not have this section apply to such vehicle.

"(5) PROPERTY USED BY TAX-EXEMPT ENTITY; INTERACTION WITH AIR QUALITY AND MOTOR VEHICLE SAFETY STANDARDS.—Rules similar to the rules of paragraphs (6) and (10) of section 30B(h) shall apply for purposes of this section.".

(b) PLUG-IN VEHICLES NOT TREATED AS NEW QUALIFIED HYBRID VEHICLES.—Section 30B(d)(3) is amended by adding at the end the following new subparagraph:

"(D) EXCLUSION OF PLUG-IN VEHICLES.—Any vehicle with respect to which a credit is allowable under section 30D (determined without regard to subsection (c) thereof) shall not be taken into account under this section.".

(c) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Section 38(b) is amended—

(1) by striking "and" each place it appears at the end of any paragraph,

(2) by striking ''plus'' each place it appears at the end of any paragraph,

(3) by striking the period at the end of paragraph (31) and inserting '', plus'', and

(4) by adding at the end the following new paragraph:

''(32) the portion of the plug-in hybrid vehicle credit to which section 30D(c)(1) applies.''.

(d) CONFORMING AMENDMENTS.—

(1)(A) Section 24(b)(3)(B), as amended by this Act, is amended by striking ''and 25D'' and inserting ''25D, and 30D''.

(B) Section 25(e)(1)(C)(ii) is amended by inserting ''30D,'' after ''25D,''.

(C) Section 25B(g)(2), as amended by this Act, is amended by striking ''and 25D'' and inserting '', 25D, and 30D''.

(D) Section 26(a)(1), as amended by this Act, is amended by striking ''and 25D'' and inserting ''25D, and 30D''.

(E) Section 1400C(d)(2) is amended by striking ''and 25D'' and inserting ''25D, and 30D''.

(2) Section 1016(a) is amended by striking ''and'' at the end of paragraph (36), by striking the period at the end of paragraph (37) and inserting '',

and'', and by adding at the end the following new paragraph:

''(38) to the extent provided in section 30D(f)(1).''.

(3) Section 6501(m) is amended by inserting ''30D(f)(4),'' after ''30C(e)(5),''.

(4) The table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by adding at the end the following new item:

''Sec. 30D. Plug-in hybrid vehicles.''.

(e) TREATMENT OF ALTERNATIVE MOTOR VEHICLE CREDIT AS A PERSONAL CREDIT.—

(1) IN GENERAL.—Paragraph (2) of section 30B(g) is amended to read as follows:

''(2) PERSONAL CREDIT.—The credit allowed under subsection (a) for any taxable year (after application of paragraph (1)) shall be treated as a credit allowable under subpart A for such taxable year.''.

(2) CONFORMING AMENDMENTS.—

(A) Subparagraph (A) of section 30C(d)(2) is amended by striking ''sections 27, 30, and 30B'' and inserting ''sections 27 and 30''.

(B) Paragraph (3) of section 55(c) is amended by striking ''30B(g)(2),''.

(f) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as otherwise provided in this subsection, the amendments made by this section shall apply to taxable years beginning after December 31, 2007.

(2) TREATMENT OF ALTERNATIVE MOTOR VEHICLE CREDIT AS PERSONAL CREDIT.—The amendments made by subsection (e) shall apply to taxable years beginning after December 31, 2006.

(g) APPLICATION OF EGTRRA SUNSET.—The amendment made by subsection (d)(1)(A) shall be subject to title IX of the Economic Growth and Tax Relief Reconciliation Act of 2001 in the same manner as the provision of such Act to which such amendment relates.

SEC. 12002. EXTENSION AND MODIFICATION OF ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY CREDIT.

(a) INCREASE IN CREDIT AMOUNT.—Section 30C (relating to alternative fuel vehicle refueling property credit) is amended—

(1) by striking ''30 percent'' in subsection (a) and inserting ''50 percent'', and

(2) by striking ''$30,000'' in subsection (b)(1) and inserting ''$50,000''.

(b) EXTENSION OF CREDIT.—Paragraph (2) of section 30C(g) (relating to termination) is amended by strik-

ing ''December 31, 2009'' and inserting ''December 31, 2010''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 12003. EXTENSION AND MODIFICATION OF CREDITS FOR BIODIESEL AND RENEWABLE DIESEL.

(a) IN GENERAL.—Sections 40A(g), 6426(c)(6), and 6427(e)(5)(B) are each amended by striking ''December 31, 2008'' and inserting ''December 31, 2010''.

(b) UNIFORM TREATMENT OF DIESEL PRODUCED FROM BIOMASS.—Paragraph (3) of section 40A(f) is amended—

(1) by striking ''using a thermal depolymerization process'', and

(2) by striking ''or D396'' in subparagraph (B) and inserting ''or other equivalent standard approved by the Secretary for fuels to be used in diesel-powered highway vehicles''.

(c) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to fuel produced, and sold or used, after the date of the enactment of this Act.

(2) UNIFORM TREATMENT OF DIESEL PRODUCED FROM BIOMASS.—The amendments made by subsection (b) shall apply to fuel produced, and sold or used, after the date which is 30 days after the date of the enactment of this Act.

SEC. 12004. CREDIT FOR PRODUCTION OF CELLULOSIC ALCOHOL.

(a) IN GENERAL.—Subsection (b) of section 40 is amended by redesignating paragraph (5) as paragraph (6) and by inserting after paragraph (4) the following new paragraph:

''(5) CELLULOSIC ALCOHOL FUEL PRODUCER CREDIT.—

''(A) IN GENERAL.—The cellulosic alcohol fuel producer credit of any cellulosic alcohol fuel producer for any taxable year is 50 cents for each gallon of qualified cellulosic fuel production of such producer.

''(B) QUALIFIED CELLULOSIC FUEL PRODUCTION.—For purposes of this paragraph, the term 'qualified cellulosic fuel production' means any cellulosic alcohol which is produced by a cellulosic alcohol fuel producer, and which during the taxable year—

"(i) is sold by such producer to another person—

"(I) for use by such other person in the production of a qualified mixture in such other person's trade or business (other than casual off-farm production),

"(II) for use by such other person as a fuel in a trade or business, or

"(III) who sells such alcohol at retail to another person and places such alcohol in the fuel tank of such other person, or

"(ii) is used or sold by such producer for any purpose described in clause (i).

"(C) CELLULOSIC ALCOHOL.—For purposes of this paragraph, the term 'cellulosic alcohol' means any alcohol which—

"(i) is produced in the United States for use as a fuel in the United States, and

"(ii) is derived from any lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis.

For purposes of this subparagraph, the term 'United States' includes any possession of the United States.

"(D) CELLULOSIC ALCOHOL FUEL PRODUCER.—For purposes of this paragraph, the term 'cellulosic alcohol fuel producer' means any person who produces cellulosic alcohol in a trade or business and is registered with the Secretary as a cellulosic alcohol fuel producer.

"(E) ADDITIONAL DISTILLATION EXCLUDED.—The qualified cellulosic fuel production of any producer for any taxable year shall not include any alcohol which is purchased by the producer and with respect to which such producer increases the proof of the alcohol by additional distillation.".

(b) CONFORMING AMENDMENTS.—

(1) Subsection (a) of section 40 is amended by striking "plus" at the end of paragraph (1), by striking "plus" at the end of paragraph (2), by striking the period at the end of paragraph (3) and inserting ", plus", and by adding at the end the following new paragraph:

"(4) in the case of a cellulosic alcohol fuel producer, the cellulosic alcohol fuel producer credit.".

(2) Clause (ii) of section 40(d)(3)(C) is amended by striking ''subsection (b)(4)(B)'' and inserting ''paragraph (4)(B) or (5)(B) of subsection (b)''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to alcohol produced after December 31, 2007.

SEC. 12005. EXTENSION OF TRANSPORTATION FRINGE BENEFIT TO BICYCLE COMMUTERS.

(a) IN GENERAL.—Paragraph (1) of section 132(f) of the Internal Revenue Code of 1986 (relating to general rule for qualified transportation fringe) is amended by adding at the end the following:

''(D) Any qualified bicycle commuting reimbursement.''.

(b) LIMITATION ON EXCLUSION.—Paragraph (2) of section 132(f) of such Code is amended by striking ''and'' at the end of subparagraph (A), by striking the period at the end of subparagraph (B) and inserting '', and'', and by adding at the end the following new subparagraph:

''(C) the applicable annual limitation in the case of any qualified bicycle commuting reimbursement.''.

(c) DEFINITIONS.—Paragraph (5) of section 132(f) of such Code (relating to definitions) is amended by adding at the end the following:

1 "(F) DEFINITIONS RELATED TO BICYCLE
2 COMMUTING REIMBURSEMENT.—
3 "(i) QUALIFIED BICYCLE COMMUTING
4 REIMBURSEMENT.—The term 'qualified bi-
5 cycle commuting reimbursement' means,
6 with respect to any calendar year, any em-
7 ployer reimbursement during the 15-month
8 period beginning with the first day of such
9 calendar year for reasonable expenses in-
10 curred by the employee during such cal-
11 endar year for the purchase of a bicycle
12 and bicycle improvements, repair, and stor-
13 age, if such bicycle is regularly used for
14 travel between the employee's residence
15 and place of employment.
16 "(ii) APPLICABLE ANNUAL LIMITA-
17 TION.—The term 'applicable annual limita-
18 tion' means, with respect to any employee
19 for any calendar year, the product of $20
20 multiplied by the number of qualified bicy-
21 cle commuting months during such year.
22 "(iii) QUALIFIED BICYCLE COM-
23 MUTING MONTH.—The term 'qualified bi-
24 cycle commuting month' means, with re-

spect to any employee, any month during which such employee—

"(I) regularly uses the bicycle for a substantial portion of the travel between the employee's residence and place of employment, and

"(II) does not receive any benefit described in subparagraph (A), (B), or (C) of paragraph (1).".

(d) CONSTRUCTIVE RECEIPT OF BENEFIT.—Paragraph (4) of section 132(f) is amended by inserting "(other than a qualified bicycle commuting reimbursement)" after "qualified transportation fringe".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after December 31, 2007.

SEC. 12006. MODIFICATION OF LIMITATION ON AUTOMOBILE DEPRECIATION.

(a) IN GENERAL.—Paragraph (5) of section 280F(d) of the Internal Revenue Code of 1986 (defining passenger automobile) is amended to read as follows:

"(5) PASSENGER AUTOMOBILE.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the term 'passenger automobile' means any 4-wheeled vehicle—

"(i) which is primarily designed or which can be used to carry passengers over public streets, roads, or highways (except any vehicle operated exclusively on a rail or rails), and

"(ii) which is rated at not more than 14,000 pounds gross vehicle weight.

"(B) EXCEPTIONS.—The term 'passenger automobile' shall not include—

"(i) any exempt-design vehicle, and

"(ii) any exempt-use vehicle.

"(C) EXEMPT-DESIGN VEHICLE.—The term 'exempt-design vehicle' means—

"(i) any vehicle which, by reason of its nature or design, is not likely to be used more than a de minimis amount for personal purposes, and

"(ii) any vehicle—

"(I) which is designed to have a seating capacity of more than 9 persons behind the driver's seat,

"(II) which is equipped with a cargo area of at least 5 feet in interior length which is an open area or is designed for use as an open area but is

enclosed by a cap and is not readily accessible directly from the passenger compartment, or

"(III) has an integral enclosure, fully enclosing the driver compartment and load carrying device, does not have seating rearward of the driver's seat, and has no body section protruding more than 30 inches ahead of the leading edge of the windshield.

"(D) EXEMPT-USE VEHICLE.—The term 'exempt-use vehicle' means—

"(i) any ambulance, hearse, or combination ambulance-hearse used by the taxpayer directly in a trade or business,

"(ii) any vehicle used by the taxpayer directly in the trade or business of transporting persons or property for compensation or hire, and

"(iii) any truck or van if substantially all of the use of such vehicle by the taxpayer is directly in—

"(I) a farming business (within the meaning of section 263A(e)(4)),

"(II) the transportation of a substantial amount of equipment, supplies, or inventory, or

"(III) the moving or delivery of property which requires substantial cargo capacity.

"(E) RECAPTURE.—In the case of any vehicle which is not a passenger automobile by reason of being an exempt-use vehicle, if such vehicle ceases to be an exempt-use vehicle in any taxable year after the taxable year in which such vehicle is placed in service, a rule similar to the rule of subsection (b) shall apply.".

(b) CONFORMING AMENDMENT.—Section 179(b) of such Code (relating to limitations) is amended by striking paragraph (6).

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after December 31, 2007.

SEC. 12007. RESTRUCTURING OF NEW YORK LIBERTY ZONE TAX CREDITS.

(a) IN GENERAL.—Part I of subchapter Y of chapter 1 is amended by redesignating section 1400L as section 1400K and by adding at the end the following new section:

"SEC. 1400L. NEW YORK LIBERTY ZONE TAX CREDITS.

"(a) IN GENERAL.—In the case of a New York Liberty Zone governmental unit, there shall be allowed as a credit against any taxes imposed for any payroll period by section 3402 for which such governmental unit is liable under section 3403 an amount equal to so much of the portion of the qualifying project expenditure amount allocated under subsection (b)(3) to such governmental unit for the calendar year as is allocated by such governmental unit to such period under subsection (b)(4).

"(b) QUALIFYING PROJECT EXPENDITURE AMOUNT.—For purposes of this section—

"(1) IN GENERAL.—The term 'qualifying project expenditure amount' means, with respect to any calendar year, the sum of—

"(A) the total expenditures paid or incurred during such calendar year by all New York Liberty Zone governmental units and the Port Authority of New York and New Jersey for any portion of qualifying projects located wholly within the City of New York, New York, and

"(B) any such expenditures—

"(i) paid or incurred in any preceding calendar year which begins after the date of enactment of this section, and

"(ii) not previously allocated under paragraph (3).

"(2) QUALIFYING PROJECT.—The term 'qualifying project' means any transportation infrastructure project, including highways, mass transit systems, railroads, airports, ports, and waterways, in or connecting with the New York Liberty Zone (as defined in section 1400K(h)), which is designated as a qualifying project under this section jointly by the Governor of the State of New York and the Mayor of the City of New York, New York.

"(3) GENERAL ALLOCATION.—

"(A) IN GENERAL.—The Governor of the State of New York and the Mayor of the City of New York, New York, shall jointly allocate to each New York Liberty Zone governmental unit the portion of the qualifying project expenditure amount which may be taken into account by such governmental unit under subsection (a) for any calendar year in the credit period.

"(B) AGGREGATE LIMIT.—The aggregate amount which may be allocated under subparagraph (A) for all calendar years in the credit period shall not exceed $2,000,000,000.

"(C) ANNUAL LIMIT.—The aggregate amount which may be allocated under subparagraph (A) for any calendar year in the credit period shall not exceed the sum of—

"(i) $169,000,000, plus

"(ii) the aggregate amount authorized to be allocated under this paragraph for all preceding calendar years in the credit period which was not so allocated.

"(D) UNALLOCATED AMOUNTS AT END OF CREDIT PERIOD.—If, as of the close of the credit period, the amount under subparagraph (B) exceeds the aggregate amount allocated under subparagraph (A) for all calendar years in the credit period, the Governor of the State of New York and the Mayor of the City of New York, New York, may jointly allocate to New York Liberty Zone governmental units for any calendar year in the 5-year period following the credit period an amount equal to—

"(i) the lesser of—

"(I) such excess, or

"(II) the qualifying project expenditure amount for such calendar year, reduced by

"(ii) the aggregate amount allocated under this subparagraph for all preceding calendar years.

"(4) ALLOCATION TO PAYROLL PERIODS.—Each New York Liberty Zone governmental unit which has been allocated a portion of the qualifying project expenditure amount under paragraph (3) for a calendar year may allocate such portion to payroll periods beginning in such calendar year as such governmental unit determines appropriate.

"(c) CARRYOVER OF UNUSED ALLOCATIONS.—

"(1) IN GENERAL.—Except as provided in paragraph (2), if the amount allocated under subsection (b)(3) to a New York Liberty Zone governmental unit for any calendar year exceeds the aggregate taxes imposed by section 3402 for which such governmental unit is liable under section 3403 for periods beginning in such year, such excess shall be carried to the succeeding calendar year and added to the allocation of such governmental unit for such succeeding calendar year.

"(2) REALLOCATION.—If a New York Liberty Zone governmental unit does not use an amount allocated to it under subsection (b)(3) within the time prescribed by the Governor of the State of New York

and the Mayor of the City of New York, New York, then such amount shall after such time be treated for purposes of subsection (b)(3) in the same manner as if it had never been allocated.

"(d) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) CREDIT PERIOD.—The term 'credit period' means the 12-year period beginning on January 1, 2008.

"(2) NEW YORK LIBERTY ZONE GOVERNMENTAL UNIT.—The term 'New York Liberty Zone governmental unit' means—

"(A) the State of New York,

"(B) the City of New York, New York, and

"(C) any agency or instrumentality of such State or City.

"(3) TREATMENT OF FUNDS.—Any expenditure for a qualifying project taken into account for purposes of the credit under this section shall be considered State and local funds for the purpose of any Federal program.

"(4) TREATMENT OF CREDIT AMOUNTS FOR PURPOSES OF WITHHOLDING TAXES.—For purposes of this title, a New York Liberty Zone governmental unit shall be treated as having paid to the Secretary,

on the day on which wages are paid to employees, an amount equal to the amount of the credit allowed to such entity under subsection (a) with respect to such wages, but only if such governmental unit deducts and withholds wages for such payroll period under section 3401 (relating to wage withholding).

''(e) REPORTING.—The Governor of the State of New York and the Mayor of the City of New York, New York, shall jointly submit to the Secretary an annual report—

''(1) which certifies—

''(A) the qualifying project expenditure amount for the calendar year, and

''(B) the amount allocated to each New York Liberty Zone governmental unit under subsection (b)(3) for the calendar year, and

''(2) includes such other information as the Secretary may require to carry out this section.

''(f) GUIDANCE.—The Secretary may prescribe such guidance as may be necessary or appropriate to ensure compliance with the purposes of this section.''.

(b) TERMINATION OF SPECIAL ALLOWANCE AND EXPENSING.—Subparagraph (A) of section 1400K(b)(2), as redesignated by subsection (a), is amended by striking the parenthetical therein and inserting ''(in the case of nonresidential real property and residential rental property,

the date of the enactment of the Renewable Energy and Energy Conservation Tax Act of 2007 or, if acquired pursuant to a binding contract in effect on such enactment date, December 31, 2009)''.

(c) CONFORMING AMENDMENTS.—

(1) Section 38(c)(3)(B) is amended by striking ''section 1400L(a)'' and inserting ''section 1400K(a)''.

(2) Section 168(k)(2)(D)(ii) is amended by striking ''section 1400L(c)(2)'' and inserting ''section 1400K(c)(2)''.

(3) The table of sections for part I of subchapter Y of chapter 1 is amended by redesignating the item relating to section 1400L as an item relating to section 1400K and by inserting after such item the following new item:

''Sec. 1400L. New York Liberty Zone tax credits.''.

(d) EFFECTIVE DATE.—The amendments made by this section shall take effect on the date of the enactment of this Act.

Subtitle B—Other Conservation Provisions

SEC. 12011. QUALIFIED ENERGY CONSERVATION BONDS.

(a) IN GENERAL.—Subpart I of part IV of subchapter A of chapter 1, as added by section 104, is amended by adding at the end the following new section:

"SEC. 54C. QUALIFIED ENERGY CONSERVATION BONDS.

"(a) QUALIFIED ENERGY CONSERVATION BOND.—For purposes of this subchapter, the term 'qualified energy conservation bond' means any bond issued as part of an issue if—

"(1) 100 percent of the available project proceeds of such issue are to be used for one or more qualified conservation purposes,

"(2) the bond is issued by a State or local government, and

"(3) the issuer designates such bond for purposes of this section.

"(b) LIMITATION ON AMOUNT OF BONDS DESIGNATED.—The maximum aggregate face amount of bonds which may be designated under subsection (a) by any issuer shall not exceed the limitation amount allocated to such issuer under subsection (d).

"(c) NATIONAL LIMITATION ON AMOUNT OF BONDS DESIGNATED.—There is a national qualified energy conservation bond limitation of $3,600,000,000.

"(d) ALLOCATIONS.—

"(1) IN GENERAL.—The limitation applicable under subsection (c) shall be allocated by the Secretary among the States in proportion to the population of the States.

"(2) ALLOCATIONS TO LARGEST LOCAL GOVERNMENTS.—

"(A) IN GENERAL.—In the case of any State in which there is a large local government, each such local government shall be allocated a portion of such State's allocation which bears the same ratio to the State's allocation (determined without regard to this subparagraph) as the population of such large local government bears to the population of such State.

"(B) ALLOCATION OF UNUSED LIMITATION TO STATE.—The amount allocated under this subsection to a large local government may be reallocated by such local government to the State in which such local government is located.

"(C) LARGE LOCAL GOVERNMENT.—For purposes of this section, the term 'large local government' means any municipality or county if such municipality or county has a population of 100,000 or more.

"(3) ALLOCATION TO ISSUERS; RESTRICTION ON PRIVATE ACTIVITY BONDS.—Any allocation under this subsection to a State or large local government shall be allocated by such State or large

local government to issuers within the State in a manner that results in not less than 70 percent of the allocation to such State or large local government being used to designate bonds which are not private activity bonds.

"(e) QUALIFIED CONSERVATION PURPOSE.—For purposes of this section—

"(1) IN GENERAL.—The term 'qualified conservation purpose' means any of the following:

"(A) Capital expenditures incurred for purposes of—

"(i) reducing energy consumption in publicly-owned buildings by at least 20 percent,

"(ii) implementing green community programs, or

"(iii) rural development involving the production of electricity from renewable energy resources.

"(B) Expenditures with respect to research facilities, and research grants, to support research in—

"(i) development of cellulosic ethanol or other nonfossil fuels,

"(ii) technologies for the capture and sequestration of carbon dioxide produced through the use of fossil fuels,

"(iii) increasing the efficiency of existing technologies for producing nonfossil fuels,

"(iv) automobile battery technologies and other technologies to reduce fossil fuel consumption in transportation, or

"(v) technologies to reduce energy use in buildings.

"(C) Mass commuting facilities and related facilities that reduce the consumption of energy, including expenditures to reduce pollution from vehicles used for mass commuting.

"(D) Demonstration projects designed to promote the commercialization of—

"(i) green building technology,

"(ii) conversion of agricultural waste for use in the production of fuel or otherwise,

"(iii) advanced battery manufacturing technologies,

"(iv) technologies to reduce peak use of electricity, or

"(v) technologies for the capture and sequestration of carbon dioxide emitted from combusting fossil fuels in order to produce electricity.

"(E) Public education campaigns to promote energy efficiency.

"(2) SPECIAL RULES FOR PRIVATE ACTIVITY BONDS.—For purposes of this section, in the case of any private activity bond, the term 'qualified conservation purposes' shall not include any expenditure which is not a capital expenditure.

"(f) POPULATION.—

"(1) IN GENERAL.—The population of any State or local government shall be determined for purposes of this section as provided in section 146(j) for the calendar year which includes the date of the enactment of this section.

"(2) SPECIAL RULE FOR COUNTIES.—In determining the population of any county for purposes of this section, any population of such county which is taken into account in determining the population of any municipality which is a large local government shall not be taken into account in determining the population of such county.

"(g) APPLICATION TO INDIAN TRIBAL GOVERNMENTS.—An Indian tribal government shall be treated for purposes of this section in the same manner as a large local government, except that—

"(1) an Indian tribal government shall be treated for purposes of subsection (d) as located within a State to the extent of so much of the population of such government as resides within such State, and

"(2) any bond issued by an Indian tribal government shall be treated as a qualified energy conservation bond only if issued as part of an issue the available project proceeds of which are used for purposes for which such Indian tribal government could issue bonds to which section 103(a) applies.".

(b) CONFORMING AMENDMENTS.—

(1) Paragraph (1) of section 54A(d), as added by section 104, is amended to read as follows:

"(1) QUALIFIED TAX CREDIT BOND.—The term 'qualified tax credit bond' means—

"(A) a new clean renewable energy bond, or

"(B) a qualified energy conservation bond, which is part of an issue that meets requirements of paragraphs (2), (3), (4), and (5).".

(2) Subparagraph (C) of section 54A(d)(2), as added by section 104, is amended to read as follows:

"(C) QUALIFIED PURPOSE.—For purposes of this paragraph, the term 'qualified purpose' means—

"(i) in the case of a new clean renewable energy bond, a purpose specified in section 54B(a)(1), and

"(ii) in the case of a qualified energy conservation bond, a purpose specified in section 54C(a)(1).".

(3) The table of sections for subpart I of part IV of subchapter A of chapter 1 is amended by adding at the end the following new item:

"Sec. 54C. Qualified energy conservation bonds.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to obligations issued after the date of the enactment of this Act.

SEC. 12012. QUALIFIED RESIDENTIAL ENERGY EFFICIENCY ASSISTANCE BONDS.

(a) IN GENERAL.—Subpart I of part IV of subchapter A of chapter 1 (as amended by this Act) is amended by adding at the end the following new section:

"SEC. 54D. QUALIFIED RESIDENTIAL ENERGY EFFICIENCY ASSISTANCE BONDS.

"(a) QUALIFIED RESIDENTIAL ENERGY EFFICIENCY ASSISTANCE BOND.—For purposes of this subchapter, the term 'qualified residential energy efficiency assistance bond' means any bond issued as part of an issue if—

"(1) 100 percent of the available project proceeds of such issue are to be used for 1 or more qualified residential energy efficiency assistance purposes,

"(2) not less than 20 percent of the available project proceeds of such issue are to be used for 1 or more qualified low-income residential energy efficiency assistance purposes,

"(3) repayments of principal and applicable interest on financing provided by the issue are used not later than the close of the 3-month period beginning on the date the prepayment (or complete repayment) is received to redeem bonds which are part of the issue or to provide for 1 or more qualified residential energy efficiency assistance purposes,

"(4) the bond is issued by a State, and

"(5) the issuer designates such bond for purposes of this section.

"(b) LIMITATION ON AMOUNT OF BONDS DESIGNATED.—The maximum aggregate face amount of

bonds which may be designated under subsection (a) by any issuer shall not exceed the limitation amount allocated under subsection (d) to such issuer.

"(c) NATIONAL LIMITATION ON AMOUNT OF BONDS DESIGNATED.—There is a national qualified energy conservation bond limitation of $2,400,000,000.

"(d) LIMITATION ALLOCATED AMONG STATES.—The limitation under subsection (c) shall be allocated by the Secretary among the States in proportion to the population of the States.

"(e) QUALIFIED RESIDENTIAL ENERGY EFFICIENCY ASSISTANCE PURPOSE.—For purposes of this section—

"(1) IN GENERAL.—The term 'qualified residential energy efficiency assistance purpose' means any grant or low-interest loan to acquire (including reasonable installation costs)—

"(A) any property which meets (at a minimum) the requirements of the Energy Star program and which is to be installed in a dwelling unit,

"(B) any property which uses wind, solar, or geothermal energy or qualified fuel cell property (as defined in section 48(c)(1)) to generate electricity, or to heat or cool water, for use in

a dwelling unit (other than property described in section 25D(e)(3)), and

"(C) any improvements to a dwelling unit which are made pursuant to a plan certified by an energy efficiency expert that such improvement will yield at least a 20 percent reduction in total household energy consumption related to heating, cooling, lighting, and appliances.

"(2) GEOTHERMAL HEAT PUMP.—Any geothermal heat pump to provide heating or cooling in a dwelling unit described in paragraph (1)(B) shall be treated as described in paragraph (1)(B).

"(3) DOLLAR LIMITATIONS.—

"(A) IN GENERAL.—Such term shall not include any grant or loan for improvements described in paragraph (1)(C) with respect to any dwelling unit to the extent that such grant or loan (when added to all other grants or loans for such improvements) exceeds $5,000.

"(B) INCREASED LIMITATION FOR CERTAIN PRINCIPAL RESIDENCES.—In the case of a dwelling unit which is used as a principal residence (within the meaning of section 121) by the recipient of the grant or loan referred to in subparagraph (A)—

"(i) subparagraph (A) shall be applied by substituting '$12,000' for '$5,000' if such grant or loan would satisfy the requirements of paragraph (1)(A) if such paragraph were applied by substituting '50 percent' for '20 percent', and

"(ii) in any case to which clause (i) does not apply, subparagraph (A) shall be applied by substituting '$8,000' for '$5,000' if such grant or loan would satisfy the requirements of paragraph (1)(A) if such paragraph were applied by substituting '35 percent' for '20 percent'.

"(4) LOW-INTEREST LOAN.—The term 'low interest loan' means any loan which charges interest at a rate which does not exceed the applicable Federal rate in effect under section 1288(b)(1) determined as of the issuance of the loan.

"(5) EXCLUSION OF CERTAIN PROPERTY.—The following property shall not be taken into account for purposes of paragraph (1)(A):

"(A) Any equipment used in connection with a swimming pool, hot tub, or similar property.

"(B) Any television.

"(C) Any device for converting digital signal to analog.

"(D) Any DVD player.

"(E) Any video cassette recorder (VCR).

"(F) Any audio equipment.

"(G) Any cordless phone.

"(H) Any other item of property where there is substantial recreational use.

"(f) QUALIFIED LOW-INCOME RESIDENTIAL EFFICIENCY ASSISTANCE PURPOSE.—For purposes of this section—

"(1) IN GENERAL.—The term 'qualified low-income residential energy efficiency assistance purpose' means any qualified residential energy efficiency assistance purpose with respect to a dwelling unit which is occupied (at the time of the grant or loan) by individuals whose income is 50 percent or less of area median gross income. Rules similar to the rules of section 142(d)(2)(B) shall apply for purposes of this paragraph.

"(2) RESTRICTION TO GRANTS.—Such term shall not include any loan.

"(g) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) APPLICABLE INTEREST.—The term 'applicable interest' means, with respect to any loan, so much of any interest on such loan which exceeds 1 percentage point.

"(2) SPECIAL RULE RELATING TO ARBITRAGE.—An issue shall not be treated as failing to meet the requirements of section 54A(d)(4)(A) by reason of any investment of available project proceeds in 1 or more qualified residential energy efficiency assistance purposes.

"(3) POPULATION.—The population of any State or local government shall be determined as provided in section 146(j) for the calendar year which includes the date of the enactment of this section.

"(4) REPORTING.—

"(A) REPORTS BY ISSUERS.—Issuers of qualified residential energy efficiency assistance bonds shall, not later than 6 months after the expenditure period (as defined in section 54A) and annually thereafter until the last such bond is redeemed, submit reports to the Secretary regarding such bonds, including information regarding—

"(i) the number and monetary value of loans and grants provided and the purposes for which provided,

"(ii) the number of dwelling units the energy efficiency of which improved as result of such loans and grants,

"(iii) the types of property described in subsection (e)(1)(A) installed as a result of such loans and grants and the projected energy savings with respect to such property,

"(iv) the types of property described in subsection (e)(1)(B) installed as a result of such loans and grants and the projected production of such property, and

"(v) the projected energy savings as a result of such loans and grants for improvements described in subsection (e)(1)(C).

"(B) REPORT TO CONGRESS.—Not later than 12 months after receipt of the first report under subparagraph (A) and annually thereafter until the last such report is required to be submitted, the Secretary, in consultation with the Secretary of Energy and the Administrator

of the Environmental Protection Agency, shall submit a report to Congress regarding the bond program under this section, including information regarding—

"(i) the aggregate of each category of information described in subparagraph (A) (including any independent assessment of projected energy savings), and

"(ii) an estimate of the amount of greenhouse gas emissions reduced as a result of such bond program.".

(b) CONFORMING AMENDMENTS.—

(1) Paragraph (1) of section 54A(d), as added by section 104 and amended by section 211, is amended by striking "or" at the end of subparagraph (A), by inserting "or" at the end of subparagraph (B), and by inserting after subparagraph (B) the following new subparagraph:

"(C) a qualified residential energy efficiency assistance bond,".

(2) Subparagraph (C) of section 54A(d)(2), as added by section 104 and amended by section 211, is amended by striking "and" at the end of clause (i), by striking the period at the end of clause (ii)

and inserting ", and", and by adding at the end the following new clause:

"(iii) in the case of a qualified residential energy efficiency assistance bond, a purpose specified in section 54D(a)(1).".

(3) The table of sections for subpart I of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 54D. Qualified residential energy efficiency assistance bonds.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to obligations issued after the date of the enactment of this Act.

SEC. 12013. EXTENSION OF ENERGY EFFICIENT COMMERCIAL BUILDINGS DEDUCTION.

Subsection (h) of section 179D (relating to termination) is amended by striking "December 31, 2008" and inserting "December 31, 2013".

SEC. 12014. MODIFICATIONS OF ENERGY EFFICIENT APPLIANCE CREDIT FOR APPLIANCES PRODUCED AFTER 2007.

(a) IN GENERAL.—Subsection (b) of section 45M (relating to applicable amount) is amended to read as follows:

"(b) APPLICABLE AMOUNT.—For purposes of subsection (a)—

"(1) DISHWASHERS.—The applicable amount is—

"(A) $45 in the case of a dishwasher which is manufactured in calendar year 2008 or 2009 and which uses no more than 324 kilowatt hours per year and 5.8 gallons per cycle, and

"(B) $75 in the case of a dishwasher which is manufactured in calendar year 2008, 2009, or 2010 and which uses no more than 307 kilowatt hours per year and 5.0 gallons per cycle (5.5 gallons per cycle for dishwashers designed for greater than 12 place settings).

"(2) CLOTHES WASHERS.—The applicable amount is—

"(A) $75 in the case of a residential top-loading clothes washer manufactured in calendar year 2008 which meets or exceeds a 1.72 modified energy factor and does not exceed a 8.0 water consumption factor,

"(B) $125 in the case of a residential top-loading clothes washer manufactured in calendar year 2008 or 2009 which meets or exceeds a 1.8 modified energy factor and does not exceed a 7.5 water consumption factor,

"(C) $150 in the case of a residential or commercial clothes washer manufactured in calendar year 2008, 2009 or 2010 which meets or exceeds 2.0 modified energy factor and does not exceed a 6.0 water consumption factor, and

"(D) $250 in the case of a residential or commercial clothes washer manufactured in calendar year 2008, 2009, or 2010 which meets or exceeds 2.2 modified energy factor and does not exceed a 4.5 water consumption factor.

"(3) REFRIGERATORS.—The applicable amount is—

"(A) $50 in the case of a refrigerator which is manufactured in calendar year 2008, and consumes at least 20 percent but not more than 22.9 percent less kilowatt hours per year than the 2001 energy conservation standards,

"(B) $75 in the case of a refrigerator which is manufactured in calendar year 2008 or 2009, and consumes at least 23 percent but no more than 24.9 percent less kilowatt hours per year than the 2001 energy conservation standards,

"(C) $100 in the case of a refrigerator which is manufactured in calendar year 2008,

2009 or 2010, and consumes at least 25 percent but not more than 29.9 percent less kilowatt hours per year than the 2001 energy conservation standards, and

"(D) $200 in the case of a refrigerator manufactured in calendar year 2008, 2009 or 2010 and which consumes at least 30 percent less energy than the 2001 energy conservation standards.

"(4) DEHUMIDIFIERS.—The applicable amount is—

"(A) $15 in the case of a dehumidifier manufactured in calendar year 2008 that has a capacity less than or equal to 45 pints per day and is 7.5 percent more efficient than the applicable Department of Energy energy conservation standard effective October 2012, and

"(B) $25 in the case of a dehumidifier manufactured in calendar year 2008 that has a capacity greater than 45 pints per day and is 7.5 percent more efficient than the applicable Department of Energy energy conservation standard effective October 2012.".

(b) ELIGIBLE PRODUCTION.—

(1) SIMILAR TREATMENT FOR ALL APPLIANCES.—Subsection (c) of section 45M (relating to eligible production) is amended—

(A) by striking paragraph (2),

(B) by striking ''(1) IN GENERAL'' and all that follows through ''the eligible'' and inserting ''The eligible'', and

(C) by moving the text of such subsection in line with the subsection heading and redesignating subparagraphs (A) and (B) as paragraphs (1) and (2), respectively.

(2) MODIFICATION OF BASE PERIOD.—Paragraph (2) of section 45M(c), as amended by paragraph (1) of this section, is amended by striking ''3-calendar year'' and inserting ''2-calendar year''.

(c) TYPES OF ENERGY EFFICIENT APPLIANCES.—Subsection (d) of section 45M (defining types of energy efficient appliances) is amended to read as follows:

''(d) TYPES OF ENERGY EFFICIENT APPLIANCE.—For purposes of this section, the types of energy efficient appliances are—

''(1) dishwashers described in subsection (b)(1),

''(2) clothes washers described in subsection (b)(2),

"(3) refrigerators described in subsection (b)(3), and

"(4) dehumidifiers described in subsection (b)(4).".

(d) AGGREGATE CREDIT AMOUNT ALLOWED.—

(1) INCREASE IN LIMIT.—Paragraph (1) of section 45M(e) (relating to aggregate credit amount allowed) is amended to read as follows:

"(1) AGGREGATE CREDIT AMOUNT ALLOWED.—The aggregate amount of credit allowed under subsection (a) with respect to a taxpayer for any taxable year shall not exceed $75,000,000 reduced by the amount of the credit allowed under subsection (a) to the taxpayer (or any predecessor) for all prior taxable years beginning after December 31, 2007.".

(2) EXCEPTION FOR CERTAIN REFRIGERATOR AND CLOTHES WASHERS.—Paragraph (2) of section 45M(e) is amended to read as follows:

"(2) AMOUNT ALLOWED FOR CERTAIN REFRIGERATORS AND CLOTHES WASHERS.—Refrigerators described in subsection (b)(3)(D) and clothes washers described in subsection (b)(2)(D) shall not be taken into account under paragraph (1).".

(e) QUALIFIED ENERGY EFFICIENT APPLIANCES.—

(1) IN GENERAL.—Paragraph (1) of section 45M(f) (defining qualified energy efficient appliance) is amended to read as follows:

"(1) QUALIFIED ENERGY EFFICIENT APPLIANCE.—The term 'qualified energy efficient appliance' means—

"(A) any dishwasher described in subsection (b)(1),

"(B) any clothes washer described in subsection (b)(2),

"(C) any refrigerator described in subsection (b)(3), and

"(D) any dehumidifier described in subsection (b)(4).".

(2) CLOTHES WASHER.—Section 45M(f)(3) (defining clothes washer) is amended by inserting "commercial" before "residential" the second place it appears.

(3) TOP-LOADING CLOTHES WASHER.—Subsection (f) of section 45M (relating to definitions) is amended by redesignating paragraphs (4), (5), (6), and (7) as paragraphs (5), (6), (7), and (8), respectively, and by inserting after paragraph (3) the following new paragraph:

"(4) TOP-LOADING CLOTHES WASHER.—The term 'top-loading clothes washer' means a clothes washer which has the clothes container compartment access located on the top of the machine and which operates on a vertical axis.".

(4) DEHUMIDIFIER.—Subsection (f) of section 45M, as amended by paragraph (3), is amended by redesignating paragraphs (6), (7), and (8) as paragraphs (7), (8) and (9), respectively, and by inserting after paragraph (5) the following new paragraph:

"(6) DEHUMIDIFIER.—The term 'dehumidifier' means a self-contained, electrically operated, and mechanically refrigerated encased assembly consisting of—

"(A) a refrigerated surface that condenses moisture from the atmosphere,

"(B) a refrigerating system, including an electric motor,

"(C) an air-circulating fan, and

"(D) means for collecting or disposing of condensate.".

(5) REPLACEMENT OF ENERGY FACTOR.—Section 45M(f)(7), as amended by paragraph (4), is amended to read as follows:

"(7) MODIFIED ENERGY FACTOR.—The term 'modified energy factor' means the modified energy factor established by the Department of Energy for compliance with the Federal energy conservation standard.".

(6) GALLONS PER CYCLE; WATER CONSUMPTION FACTOR.—Section 45M(f) (relating to definitions) is amended by adding at the end the following:

"(10) GALLONS PER CYCLE.—The term 'gallons per cycle' means, with respect to a dishwasher, the amount of water, expressed in gallons, required to complete a normal cycle of a dishwasher.

"(11) WATER CONSUMPTION FACTOR.—The term 'water consumption factor' means, with respect to a clothes washer, the quotient of the total weighted per-cycle water consumption divided by the cubic foot (or liter) capacity of the clothes washer.".

(f) EFFECTIVE DATE.—The amendments made by this section shall apply to appliances produced after December 31, 2007.

SEC. 12015. FIVE-YEAR APPLICABLE RECOVERY PERIOD FOR DEPRECIATION OF QUALIFIED ENERGY MANAGEMENT DEVICES.

(a) IN GENERAL.—Section 168(e)(3)(B) (relating to 5-year property) is amended by striking ''and'' at the end of clause (v), by striking the period at the end of clause (vi) and inserting '', and'', and by inserting after clause (vi) the following new clause:

''(vii) any qualified energy management device.''.

(b) DEFINITION OF QUALIFIED ENERGY MANAGEMENT DEVICE.—Section 168(i) (relating to definitions and special rules) is amended by inserting at the end the following new paragraph:

''(18) QUALIFIED ENERGY MANAGEMENT DEVICE.—

''(A) IN GENERAL.—The term 'qualified energy management device' means any energy management device which is installed on real property of a customer of the taxpayer and is placed in service by a taxpayer who—

''(i) is a supplier of electric energy or a provider of electric energy services, and

''(ii) provides all commercial and residential customers of such supplier or pro-

vider with net metering upon the request of such customer.

"(B) ENERGY MANAGEMENT DEVICE.—For purposes of subparagraph (A), the term 'energy management device' means any time-based meter and related communication equipment which is capable of being used by the taxpayer as part of a system that—

"(i) measures and records electricity usage data on a time-differentiated basis in at least 24 separate time segments per day,

"(ii) provides for the exchange of information between supplier or provider and the customer's energy management device in support of time-based rates or other forms of demand response, and

"(iii) provides data to such supplier or provider so that the supplier or provider can provide energy usage information to customers electronically.

"(C) NET METERING.—For purposes of subparagraph (A), the term 'net metering' means allowing customers a credit for providing electricity to the supplier or provider.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act.

TITLE XIII—REVENUE PROVISIONS

Subtitle A—Denial of Oil and Gas Tax Benefits

SEC. 13001. DENIAL OF DEDUCTION FOR INCOME ATTRIBUTABLE TO DOMESTIC PRODUCTION OF OIL, NATURAL GAS, OR PRIMARY PRODUCTS THEREOF.

(a) IN GENERAL.—Subparagraph (B) of section 199(c)(4) (relating to exceptions) is amended by striking ''or'' at the end of clause (ii), by striking the period at the end of clause (iii) and inserting '', or'', and by inserting after clause (iii) the following new clause:

''(iv) the sale, exchange, or other disposition of oil, natural gas, or any primary product thereof.''.

(b) PRIMARY PRODUCT.—Section 199(c)(4)(B) is amended by adding at the end the following flush sentence:

''For purposes of clause (iv), the term 'primary product' has the same meaning as when used in

section 927(a)(2)(C), as in effect before its repeal.''.

(c) CONFORMING AMENDMENTS.—Section 199(c)(4) is amended—

(1) in subparagraph (A)(i)(III) by striking ''electricity, natural gas,'' and inserting ''electricity'', and

(2) in subparagraph (B)(ii) by striking ''electricity, natural gas,'' and inserting ''electricity''.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after December 31, 2007.

SEC. 13002. 7-YEAR AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES FOR CERTAIN MAJOR INTEGRATED OIL COMPANIES.

(a) IN GENERAL.—Subparagraph (A) of section 167(h)(5) (relating to special rule for major integrated oil companies) is amended by striking ''5-year'' and inserting ''7-year''.

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to amounts paid or incurred after the date of the enactment of this Act.

SEC. 13003. CLARIFICATION OF DETERMINATION OF FOREIGN OIL AND GAS EXTRACTION INCOME.

(a) IN GENERAL.—Paragraph (1) of section 907(c) is amended by redesignating subparagraph (B) as subparagraph (C), by striking ''or'' at the end of subparagraph (A), and by inserting after subparagraph (A) the following new subparagraph:

''(B) so much of any transportation of such minerals as occurs before the fair market value event, or''.

(b) FAIR MARKET VALUE EVENT.—Subsection (c) of section 907 is amended by adding at the end the following new paragraph:

''(6) FAIR MARKET VALUE EVENT.—For purposes of this section, the term 'fair market value event' means, with respect to any mineral, the first point in time at which such mineral—

''(A) has a fair market value which can be determined on the basis of a transfer, which is an arm's length transaction, of such mineral from the taxpayer to a person who is not related (within the meaning of section 482) to such taxpayer, or

''(B) is at a location at which the fair market value is readily ascertainable by reason of transactions among unrelated third parties with

respect to the same mineral (taking into account source, location, quality, and chemical composition).''.

(c) SPECIAL RULE FOR CERTAIN PETROLEUM TAXES.—Subsection (c) of section 907, as amended by subsection (b), is amended to by adding at the end the following new paragraph:

''(7) OIL AND GAS TAXES.—In the case of any tax imposed by a foreign country which is limited in its application to taxpayers engaged in oil or gas activities—

''(A) the term 'oil and gas extraction taxes' shall include such tax,

''(B) the term 'foreign oil and gas extraction income' shall include any taxable income which is taken into account in determining such tax (or is directly attributable to the activity to which such tax relates), and

''(C) the term 'foreign oil related income' shall not include any taxable income which is treated as foreign oil and gas extraction income under subparagraph (B).''.

(d) CONFORMING AMENDMENTS.—

(1) Subparagraph (C) of section 907(c)(1), as redesignated by this section, is amended by inserting

"or used by the taxpayer in the activity described in subparagraph (B)" before the period at the end.

(2) Subparagraph (B) of section 907(c)(2) is amended to read as follows:

"(B) so much of the transportation of such minerals or primary products as is not taken into account under paragraph (1)(B),".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act.

Subtitle B—Clarification of Eligibility for Certain Fuel Credits

SEC. 13011. CLARIFICATION OF ELIGIBILITY FOR RENEWABLE DIESEL CREDIT.

(a) COPRODUCTION WITH PETROLEUM FEEDSTOCK.—

(1) IN GENERAL.—Paragraph (3) of section 40A(f) (defining renewable diesel) is amended by adding at the end the following flush sentence:

"Such term does not include any fuel derived from coprocessing biomass with a feedstock which is not biomass. For purposes of this paragraph, the term 'biomass' has the meaning given such term by section 45K(c)(3).".

(2) CONFORMING AMENDMENT.—Paragraph (3) of section 40A(f) is amended by striking ''(as defined in section 45K(c)(3))''.

(b) CLARIFICATION OF ELIGIBILITY FOR ALTERNATIVE FUEL CREDIT.—

(1) IN GENERAL.—Subparagraph (F) of section 6426(d)(2) is amended by striking ''hydrocarbons'' and inserting ''fuel''.

(2) CONFORMING AMENDMENT.—Section 6426 is amended by adding at the end the following new subsection:

''(h) DENIAL OF DOUBLE BENEFIT.—No credit shall be determined under subsection (d) or (e) with respect to any fuel with respect to which credit may be determined under subsection (b) or (c) or under section 40 or 40A.''.

(c) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to fuel produced, and sold or used, after June 30, 2007.

(2) CLARIFICATION OF ELIGIBILITY FOR ALTERNATIVE FUEL CREDIT.—The amendment made by subsection (b) shall take effect as if included in section 11113 of the Safe, Accountable, Flexible, Ef-

ficient Transportation Equity Act: A Legacy for Users.

SEC. 13012. CLARIFICATION THAT CREDITS FOR FUEL ARE DESIGNED TO PROVIDE AN INCENTIVE FOR UNITED STATES PRODUCTION.

(a) BIODIESEL FUELS CREDIT.—Paragraph (5) of section 40A(d), as added by subsection (c), is amended to read as follows:

"(5) LIMITATION TO BIODIESEL WITH CONNECTION TO THE UNITED STATES.—No credit shall be determined under this section with respect to any biodiesel unless—

"(A) such biodiesel is produced in the United States for use as a fuel in the United States, and

"(B) the taxpayer obtains a certification (in such form and manner as prescribed by the Secretary) from the producer of the biodiesel which identifies the product produced and the location of such production.

For purposes of this paragraph, the term 'United States' includes any possession of the United States.".

(b) EXCISE TAX CREDIT.—Paragraph (2) of section 6426(i), as added by subsection (c), is amended to read as follows:

"(2) BIODIESEL AND ALTERNATIVE FUELS.—No credit shall be determined under this section with respect to any biodiesel or alternative fuel unless—

"(A) such biodiesel or alternative fuel is produced in the United States for use as a fuel in the United States, and

"(B) the taxpayer obtains a certification (in such form and manner as prescribed by the Secretary) from the producer of such biodiesel or alternative fuel which identifies the product produced and the location of such production.".

(c) PROVISIONS CLARIFYING TREATMENT OF FUELS WITH NO NEXUS TO THE UNITED STATES.—

(1) ALCOHOL FUELS CREDIT.—Subsection (d) of section 40 is amended by adding at the end the following new paragraph:

"(6) LIMITATION TO ALCOHOL WITH CONNECTION TO THE UNITED STATES.—No credit shall be determined under this section with respect to any alcohol which is produced outside the United States for use as a fuel outside the United States. For pur-

poses of this paragraph, the term 'United States' includes any possession of the United States.''.

(2) BIODIESEL FUELS CREDIT.—Subsection (d) of section 40A is amended by adding at the end the following new paragraph:

''(5) LIMITATION TO BIODIESEL WITH CONNECTION TO THE UNITED STATES.—No credit shall be determined under this section with respect to any biodiesel which is produced outside the United States for use as a fuel outside the United States. For purposes of this paragraph, the term 'United States' includes any possession of the United States.''.

(3) EXCISE TAX CREDIT.—

(A) IN GENERAL.—Section 6426, as amended by section 311, is amended by adding at the end the following new subsection:

''(i) LIMITATION TO FUELS WITH CONNECTION TO THE UNITED STATES.—

''(1) ALCOHOL.—No credit shall be determined under this section with respect to any alcohol which is produced outside the United States for use as a fuel outside the United States.

''(2) BIODIESEL AND ALTERNATIVE FUELS.—No credit shall be determined under this section

with respect to any biodiesel or alternative fuel which is produced outside the United States for use as a fuel outside the United States.

For purposes of this subsection, the term 'United States' includes any possession of the United States.''.

(B) CONFORMING AMENDMENT.—Subsection (e) of section 6427 is amended by redesignating paragraph (5) as paragraph (6) and by inserting after paragraph (4) the following new paragraph:

''(5) LIMITATION TO FUELS WITH CONNECTION TO THE UNITED STATES.—No amount shall be payable under paragraph (1) or (2) with respect to any mixture or alternative fuel if credit is not allowed with respect to such mixture or alternative fuel by reason of section 6426(i).''.

(d) EFFECTIVE DATE.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to fuel produced, and sold or used, after the date of the enactment of this Act.

(2) PROVISIONS CLARIFYING TREATMENT OF FUELS WITH NO NEXUS TO THE UNITED STATES.—

(A) IN GENERAL.—Except as otherwise provided in this paragraph, the amendments

made by subsection (c) shall take effect as if included in section 301 of the American Jobs Creation Act of 2004.

(B) ALTERNATIVE FUEL CREDITS.—So much of the amendments made by subsection (c) as relate to the alternative fuel credit or the alternative fuel mixture credit shall take effect as if included in section 11113 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users.

(C) RENEWABLE DIESEL.—So much of the amendments made by subsection (c) as relate to renewable diesel shall take effect as if included in section 1346 of the Energy Policy Act of 2005.

TITLE XIV—OTHER PROVISIONS

Subtitle A—Studies

SEC. 14001. CARBON AUDIT OF THE TAX CODE.

(a) STUDY.—The Secretary of the Treasury shall enter into an agreement with the National Academy of Sciences to undertake a comprehensive review of the Internal Revenue Code of 1986 to identify the types of and specific tax provisions that have the largest effects on carbon and other greenhouse gas emissions and to estimate the magnitude of those effects.

(b) REPORT.—Not later than 2 years after the date of enactment of this Act, the National Academy of Sciences shall submit to Congress a report containing the results of study authorized under this section.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $1,500,000 for the period of fiscal years 2008 and 2009.

SEC. 14002. COMPREHENSIVE STUDY OF BIOFUELS.

(a) STUDY.—The Secretary of the Treasury, in consultation with the Secretary of Agriculture, the Secretary of Energy, and the Administrator of the Environmental Protection Agency, shall enter into an agreement with the National Academy of Sciences to produce an analysis of current scientific findings to determine—

(1) current biofuels production, as well as projections for future production,

(2) the maximum amount of biofuels production capable on United States farmland,

(3) the domestic effects of a dramatic increase in biofuels production on, for example—

(A) the price of fuel,

(B) the price of land in rural and suburban communities,

(C) crop acreage and other land use,

(D) the environment, due to changes in crop acreage, fertilizer use, runoff, water use, emissions from vehicles utilizing biofuels, and other factors,

(E) the price of feed,

(F) the selling price of grain crops,

(G) exports and imports of grains,

(H) taxpayers, through cost or savings to commodity crop payments, and

(I) the expansion of refinery capacity,

(4) the ability to convert corn ethanol plants for other uses, such as cellulosic ethanol or biodiesel,

(5) a comparative analysis of corn ethanol versus other biofuels and renewable energy sources, considering cost, energy output, and ease of implementation, and

(6) the need for additional scientific inquiry, and specific areas of interest for future research.

(b) REPORT.—The National Academy of Sciences shall submit an initial report of the findings of the report required under subsection (a) to the Congress not later than 3 months after the date of the enactment of this Act, and a final report not later than 6 months after such date of enactment.

Subtitle B—Application of Certain Labor Standards on Projects Financed Under Tax Credit Bonds

SEC. 14011. APPLICATION OF CERTAIN LABOR STANDARDS ON PROJECTS FINANCED UNDER TAX CREDIT BONDS.

Subchapter IV of chapter 31 of title 40, United States Code, shall apply to projects financed with the proceeds of any tax credit bond (as defined in section 54A of the Internal Revenue Code of 1986).

Passed the House of Representatives August 4, 2007.

Attest: LORRAINE C. MILLER,

Clerk.

By JORGE E. SORENSON,

Deputy Clerk.

Calendar No. 340

110TH CONGRESS
1ST SESSION

H. R. 3221

AN ACT

Moving the United States toward greater energy independence and security, developing innovative new technologies, reducing carbon emissions, creating green jobs, protecting consumers, increasing clean renewable energy production, and modernizing our energy infrastructure, and to amend the Internal Revenue Code of 1986 to provide tax incentives for the production of renewable energy and energy conservation.

SEPTEMBER 5, 2007

Read the second time and placed on the calendar