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## S.1733

### Clean Energy Jobs and American Power Act (Introduced in Senate)

#### Subtitle C--Nuclear and Advanced Technologies

#### SEC. 131. FINDINGS AND POLICY.

(a) Findings- Congress finds that--

- (1) in 2008, 104 nuclear power plants produced 19.6 percent of the electricity generated in the United States, slightly less than the electricity generated by natural gas;
- (2) nuclear energy is the largest provider of clean, low-carbon, electricity, almost 8 times larger than all renewable power production combined, excluding hydroelectric power;
- (3) nuclear energy supplies consistent, base-load electricity, independent of environmental conditions;
- (4) by displacing fossil fuels that would otherwise be used for electricity production, nuclear power plants virtually eliminate emissions of greenhouse gases and criteria pollutants associated with acid rain, smog, or ozone;
- (5) nuclear power generation continues to require robust efforts to address issues of safety, waste, and proliferation;
- (6) even if every nuclear plant is granted a 20-year extension, all currently operating nuclear plants will be retired by 2055;
- (7) long lead times for nuclear power plant construction indicate that action to stimulate the nuclear power industry should not be delayed;
- (8) the high upfront capital costs of nuclear plant construction remain a substantial obstacle, despite theoretical potential for significant cost reduction;
- (9) translating theoretical cost reduction potential into actual reduced construction costs remains a significant industry challenge that can be overcome only through demonstrated performance;

(10) as of January 2009, 17 companies and consortia have submitted applications to the Nuclear Regulatory Commission for 26 new reactors in the United States;

(11) those proposed reactors will use the latest in nuclear technology for efficiency and safety, more advanced than the technology of the 1960s and 1970s found in the reactors currently operating in the United States;

(12) increased resources for the Nuclear Regulatory Commission and reform of the licensing process have improved the safety and timeliness of the regulatory environment;

(13) the United States has not built a new reactor since the 1970s and, as a result, will need to revitalize and retool the institutions and infrastructure necessary to construct, maintain, and support new reactors, including improvements in manufacturing of nuclear components and training for the next generation nuclear workforce; and

(14) those new reactors will launch a new era for the nuclear industry, and translate into tens of thousands of jobs.

(b) Statement of Policy- It is the policy of the United States, given the importance of transitioning to a clean energy, low-carbon economy, to facilitate the continued development and growth of a safe and clean nuclear energy industry, through--

(1) reductions in financial and technical barriers to construction and operation; and

(2) incentives for the development of a well-trained workforce and the growth of safe domestic nuclear and nuclear-related industries.

## **SEC. 132. NUCLEAR WORKER TRAINING.**

(a) Definition of Applicable Period- In this section, the term `applicable period' means--

(1) the 5-year period beginning on January 1, 2012; and

(2) each 5-year period beginning on each January 1 thereafter.

(b) Use of Funds- Of amounts made available to carry out this section for the calendar years in each applicable period--

(1) the Secretary of Energy shall use such amounts for each applicable period as the Secretary of Energy determines to be necessary to increase the number and amounts of nuclear science talent expansion grants and nuclear science competitiveness grants provided under section 5004 of the America COMPETES Act (42 U.S.C. 16532); and

(2) the Secretary of Labor, in consultation with nuclear energy entities and organized labor, shall use such amounts for each applicable period as the Secretary of Labor determines to be necessary to carry out programs expanding workforce training to meet the high demand for workers skilled in nuclear power plant construction and operation, including programs for--

- (A) electrical craft certification;
- (B) preapprenticeship career technical education for industrialized skilled crafts that are useful in the construction of nuclear power plants;
- (C) community college and skill center training for nuclear power plant technicians;
- (D) training of construction management personnel for nuclear power plant construction projects; and
- (E) regional grants for integrated nuclear energy workforce development programs.

### **SEC. 133. NUCLEAR SAFETY AND WASTE MANAGEMENT PROGRAMS.**

#### (a) Nuclear Facility Long-Term Operations Research and Development Program-

(1) ESTABLISHMENT- As soon as practicable after the date of enactment of this Act, the Secretary of Energy (referred to in this section as the 'Secretary') shall establish a research and development program--

- (A) to address the reliability, availability, productivity, component aging, safety, and security of nuclear power plants;
- (B) to improve the performance of nuclear power plants;
- (C) to sustain the health and safety of employees of nuclear power plants;
- (D) to assess the feasibility of nuclear power plants to continue to provide clean and economic electricity safely, substantially beyond the first license extension period of the nuclear power plants, which will--
  - (i) significantly contribute to the energy security of the United States; and
  - (ii) help protect the environment of the United States; and
- (E) to support significant carbon reductions, lower overall costs that are required to reduce carbon emissions, and increase energy security.

#### (2) CONDUCT OF PROGRAM-

(A) IN GENERAL- In carrying out the program established under paragraph (1), the Secretary shall--

- (i) build a fundamental scientific basis to understand, predict, and measure changes in materials, systems, structures, equipment, and components as the materials, systems, structures, equipment, and components age through continued operations in long-term service environments;

(ii) develop new safety analysis tools and methods to enhance the performance and safety of nuclear power plants;

(iii) develop advanced online monitoring, control, and diagnostics technologies to prevent equipment failures and improve the safety of nuclear power plants;

(iv) establish a technical basis for advanced fuel designs (including silicon carbide fuel cladding) to increase the safety margins of nuclear power plants; and

(v) examine issues, including--

(I) issues relating to material degradation, plant aging, and technology upgrades; and

(II) any other issue that would impact decisions to extend the lifespan of nuclear power plants.

(B) TECHNICAL SUPPORT- In carrying out the program established under paragraph (1), the Secretary shall provide to the Chairman of the Nuclear Regulatory Commission information collected under the program --

(i) to help ensure informed decisions regarding the extension of the life of nuclear power plants beyond a 60-year lifespan; and

(ii) for the licensing and long-term management, and safe and economical operation, of nuclear power plants.

(b) Spent Nuclear Waste Disposal Research and Development Program-

(1) ESTABLISHMENT- As soon as practicable after the date of enactment of this Act, the Secretary shall establish a research and development program to improve the understanding of nuclear spent fuel management and the entire nuclear fuel cycle life.

(2) CONDUCT OF PROGRAM- In carrying out the program established under paragraph (1), the Secretary shall carry out science-based research and development activities to pursue dramatic improvements in a range of nuclear spent fuel management options, including short-term and long-term storage and disposal, and proliferation-resistant nuclear spent fuel recycling.

(c) Authorization of Appropriations- There are authorized to be appropriated such sums as are necessary to carry out this section.

#### **Subtitle D--Water Efficiency**

### **SEC. 141. WATERSENSE.**

(a) In General- There is established within the Environmental Protection Agency a WaterSense program to identify and promote water-efficient products, buildings, landscapes, facilities, processes, and services, so as--

- (1) to reduce water use;
- (2) to reduce the strain on water, wastewater, and stormwater infrastructure;
- (3) to conserve energy used to pump, heat, transport, and treat water; and
- (4) to preserve water resources for future generations, through voluntary labeling of, or other forms of communications about, products, buildings, landscapes, facilities, processes, and services that meet the highest water efficiency and performance criteria.

(b) Duties- The Administrator shall--

(1) establish--

(A) a WaterSense label to be used for certain items; and

(B) the procedure by which an item may be certified to display the WaterSense label;

(2) promote WaterSense-labeled products, buildings, landscapes, facilities, processes, and services in the market place as the preferred technologies and services for--

(A) reducing water use; and

(B) ensuring product and service performance;

(3) work to enhance public awareness of the WaterSense label through public outreach, education, and other means;

(4) preserve the integrity of the WaterSense label by--

(A) establishing and maintaining performance criteria so that products, buildings, landscapes, facilities, processes, and services labeled with the WaterSense label perform as well or better than less water-efficient counterparts;

(B) overseeing WaterSense certifications made by third parties;

(C) conducting reviews of the use of the WaterSense label in the marketplace and taking corrective action in any case in which misuse of the label is identified; and

(D) carrying out such other measures as the Administrator determines to be appropriate;

(5) regularly review and, if appropriate, update WaterSense criteria for categories of products, buildings, landscapes, facilities, processes, and services, at least once every 4 years;

(6) to the maximum extent practicable, regularly estimate and make available to the public the production and relative market shares of, and the savings of water, energy, and capital costs of water, wastewater, and stormwater

infrastructure attributable to the use of WaterSense-labeled products, buildings, landscapes, facilities, processes, and services, at least annually;

(7) solicit comments from interested parties and the public prior to establishing or revising a WaterSense category, specification, installation criterion, or other criterion (or prior to effective dates for any such category, specification, installation criterion, or other criterion);

(8) provide reasonable notice to interested parties and the public of any changes (including effective dates), on the adoption of a new or revised category, specification, installation criterion, or other criterion, along with--

(A) an explanation of the changes; and

(B) as appropriate, responses to comments submitted by interested parties and the public;

(9) provide appropriate lead time (as determined by the Administrator) prior to the applicable effective date for a new or significant revision to a category, specification, installation criterion, or other criterion, taking into account the timing requirements of the manufacturing, marketing, training, and distribution process for the specific product, building and landscape, or service category addressed;

(10) identify and, if appropriate, implement other voluntary approaches in commercial, institutional, residential, industrial, and municipal sectors to encourage recycling and reuse technologies to improve water efficiency or lower water use; and

(11) where appropriate, apply the WaterSense label to water-using products that are labeled by the Energy Star program implemented by the Administrator and the Secretary of Energy.

(c) Authorization of Appropriations- There are authorized to be appropriated to carry out this section--

(1) \$7,500,000 for fiscal year 2010;

(2) \$10,000,000 for fiscal year 2011;

(3) \$20,000,000 for fiscal year 2012;

(4) \$50,000,000 for fiscal year 2013; and

(5) for each subsequent fiscal year, the applicable amount during the preceding fiscal year, as adjusted to reflect changes for the 12-month period ending the preceding November 30 in the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics of the Department of Labor.

## **SEC. 142. FEDERAL PROCUREMENT OF WATER-EFFICIENT PRODUCTS.**

(a) Definitions- In this section:

(1) AGENCY- The term `Agency' has the meaning given the term in section 7902(a) of title 5, United States Code.

(2) FEMP-DESIGNATED PRODUCT- The term `FEMP-designated product' means a product that is designated under the Federal Energy Management Program of the Department of Energy as being among the highest 25 percent of equivalent products for efficiency.

(3) PRODUCT, BUILDING, LANDSCAPE, FACILITY, PROCESS, AND SERVICE- The terms `product', `building', `landscape', `facility', `process', and `service' do not include--

(A) any water-using product, building, landscape, facility, process, or service designed or procured for combat or combat-related missions; or

(B) any product, building, landscape, facility, process, or service already covered by the Federal procurement regulations established under section 553 of the National Energy Conservation Policy Act (42 U.S.C. 8259b).

(4) WaterSENSE PRODUCT, BUILDING, LANDSCAPE, FACILITY, PROCESS, OR SERVICE- The term `WaterSense product, building, landscape, facility, process, or service' means a product, building, landscape, facility, process, or service that is labeled for water efficiency under the WaterSense program.

(5) WaterSENSE PROGRAM- The term `WaterSense program' means the program established by section 141.

(b) Procurement of Water-Efficient Products-

(1) REQUIREMENT-

(A) IN GENERAL- To meet the requirements of an agency for a water-using product, building, landscape, facility, process, or service, the head of an Agency shall, except as provided in paragraph (2), procure--

(i) a WaterSense product, building, landscape, facility, process, or service; or

(ii) a FEMP-designated product.

(B) SENSE OF CONGRESS REGARDING INSTALLATION PREFERENCES- It is the sense of Congress that a WaterSense irrigation system should, to the maximum extent practicable, be installed and audited by a WaterSense-certified irrigation professional to ensure optimal performance.

(2) EXCEPTIONS- The head of an Agency shall not be required to procure a WaterSense product, building, landscape, facility, process, or service or FEMP-designated product under paragraph (1) if the head of the Agency finds in writing that--

(A) a WaterSense product, building, landscape, facility, process, or service or FEMP-designated product is not cost-effective over the life of

the product, building, landscape, facility, process, or service, taking energy, water, and wastewater service cost savings into account; or

(B) no WaterSense product, building, landscape, facility, process, or service or FEMP-designated product is reasonably available that meets the functional requirements of the Agency.

(3) PROCUREMENT PLANNING-

(A) IN GENERAL- The head of an Agency shall incorporate criteria used for evaluating WaterSense products, buildings, landscapes, facilities, processes, and services and FEMP-designated products into--

(i) the specifications for all procurements involving water-using products, buildings, landscapes, facilities, processes, and systems, including guide specifications, project specifications, and construction, renovation, and services contracts that include provision of water-using products, buildings, landscapes, facilities, processes, and systems; and

(ii) the factors for the evaluation of offers received for the procurement.

(B) LISTING OF WATER-EFFICIENT PRODUCTS IN FEDERAL CATALOGS- WaterSense products, buildings, landscapes, facilities, processes, and systems and FEMP-designated products shall be clearly identified and prominently displayed in any inventory or listing of products by the General Services Administration or the Defense Logistics Agency.

(C) ADDITIONAL MEASURES- The head of an Agency shall consider, to the maximum extent practicable, additional measures for reducing Agency water use, including water reuse technologies, leak detection and repair, and use of waterless products that perform similar functions to existing water-using products.

(c) Retrofit Programs- The head of each Agency, working in coordination with the Administrator and the heads of such other Agencies as the President may designate, shall develop standards and implementation procedures for a building water efficiency retrofit program, which shall include the following elements:

(1) EVALUATION OF PRODUCTS AND SYSTEMS- Not later than 270 days after the date of enactment of this Act, each Agency shall evaluate water-consuming products and systems in buildings operated by such Agency and identify opportunities for retrofit and replacement of such products and systems with high-efficiency equipment, such as zero-water-consumption equipment, high-efficiency toilets, high-efficiency shower heads, and high-efficiency faucets, and other products that are certified as Watersense products or FEMP-designated products.

(2) RETROFIT PLAN- Not later than 360 days after the date of enactment of this Act, each Agency shall, in coordination with other appropriate Agencies and officials, prepare a water efficiency retrofit plan that shall, to the maximum extent practicable, maximize retrofitting of water-consuming

products and systems and replacement with high-efficiency equipment described in paragraph (1).

(d) Guidelines- Not later than 180 days after the date of enactment of this Act, the Administrator, working in coordination with the Secretary of Energy and the heads of such other Agencies as the President may designate, shall issue guidelines to carry out this section.

## **SEC. 143. STATE RESIDENTIAL WATER EFFICIENCY AND CONSERVATION INCENTIVES PROGRAM.**

(a) Definitions- In this section:

(1) ELIGIBLE ENTITY- The term `eligible entity' means a State government, local or county government, tribal government, wastewater or sewerage utility, municipal water authority, energy utility, water utility, or nonprofit organization that meets the requirements of subsection (b).

(2) INCENTIVE PROGRAM- The term `incentive program' means a program for administering financial incentives for consumer purchase and installation of water-efficient products, buildings (including New Water-Efficient Homes), landscapes, processes, or services described in subsection (b)(1).

(3) RESIDENTIAL WATER-EFFICIENT PRODUCT, BUILDING, LANDSCAPE, PROCESS, OR SERVICE-

(A) IN GENERAL- The term `residential water-efficient product, building, landscape, process, or service' means a product, building, landscape, process, or service for a residence or its landscape that is rated for water efficiency and performance--

(i) by the WaterSense program; or

(ii) if a WaterSense specification does not exist, by the Energy Star program or an incentive program approved by the Administrator.

(B) INCLUSIONS- The term `residential water-efficient product, building, landscape, process, or service' includes--

(i) faucets;

(ii) irrigation technologies and services;

(iii) point-of-use water treatment devices;

(iv) reuse and recycling technologies;

(v) toilets;

(vi) clothes washers;

(vii) dishwashers;

(viii) showerheads;

(ix) xeriscaping and other landscape conversions that replace irrigated turf; and

(x) New Water Efficient Homes certified by the WaterSense program.

(4) WaterSENSE PROGRAM- The term `WaterSense program' means the program established by section 141.

(b) Eligible Entities- An entity shall be eligible to receive an allocation under subsection (c) if the entity--

(1) establishes (or has established) an incentive program to provide financial incentives to residential consumers for the purchase of residential water-efficient products, buildings, landscapes, processes, or services;

(2) submits an application for the allocation at such time, in such form, and containing such information as the Administrator may require; and

(3) provides assurances satisfactory to the Administrator that the entity will use the allocation to supplement, but not supplant, funds made available to carry out the incentive program.

(c) Amount of Allocations- For each fiscal year, the Administrator shall determine the amount to allocate to each eligible entity to carry out subsection (d), taking into consideration--

(1) the population served by the eligible entity during the most recent calendar year for which data are available;

(2) the targeted population of the incentive program of the eligible entity, such as general households, low-income households, or first-time homeowners, and the probable effectiveness of the incentive program for that population;

(3) for existing programs, the effectiveness of the program in encouraging the adoption of water-efficient products, buildings, landscapes, facilities, processes, and services;

(4) any allocation to the eligible entity for a preceding fiscal year that remains unused; and

(5) the per capita water demand of the population served by the eligible entity during the most recent calendar year for which data are available and the accessibility of water supplies to such entity.

(d) Use of Allocated Funds- Funds allocated to an eligible entity under subsection (c) may be used to pay up to 50 percent of the cost of establishing and carrying out an incentive program.

(e) Fixture Recycling- Eligible entities are encouraged to promote or implement fixture recycling programs to manage the disposal of older fixtures replaced due to the incentive program under this section.

(f) Issuance of Incentives-

(1) IN GENERAL- Financial incentives may be provided to residential consumers that meet the requirements of the applicable incentive program.

(2) MANNER OF ISSUANCE- An eligible entity may--

(A) issue all financial incentives directly to residential consumers; or

(B) with approval of the Administrator, delegate all or part of financial incentive administration to other organizations, including local governments, municipal water authorities, water utilities, and non-profit organizations.

(3) AMOUNT- The amount of a financial incentive shall be determined by the eligible entity, taking into consideration--

(A) the amount of any Federal or State incentive available for the purchase of the residential water-efficient product or service;

(B) the amount necessary to change consumer behavior to purchase water-efficient products and services; and

(C) the consumer expenditures for onsite preparation, assembly, and original installation of the product.

(g) Authorization of Appropriations- There are authorized to be appropriated to the Administrator to carry out this section--

(1) \$100,000,000 for fiscal year 2010;

(2) \$150,000,000 for fiscal year 2011;

(3) \$200,000,000 for fiscal year 2012;

(4) \$150,000,000 for fiscal year 2013;

(5) \$100,000,000 for fiscal year 2014; and

(6) for each subsequent fiscal year, the applicable amount during the preceding fiscal year, as adjusted to reflect changes for the 12-month period ending the preceding November 30 in the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics of the Department of Labor.

**Subtitle E--Miscellaneous**

**SEC. 151. OFFICE OF CONSUMER ADVOCACY.**

(a) Office-

(1) ESTABLISHMENT- There is established an Office of Consumer Advocacy to serve as an advocate for the public interest.

(2) DIRECTOR- The Office shall be headed by a Director to be appointed by the President, who is admitted to the Federal Bar, with experience in public utility proceedings, and by and with the advice and consent of the Senate.

(3) DUTIES- The Office may--

(A) represent, and appeal on behalf of, energy customers on matters concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission--

(i) at hearings of the Commission;

(ii) in judicial proceedings in the courts of the United States; and

(iii) at hearings or proceedings of other Federal regulatory agencies and commissions;

(B) monitor and review energy customer complaints and grievances on matters concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission;

(C) investigate independently, or within the context of formal proceedings, the services provided by, the rates charged by, and the valuation of the properties of, public utilities and natural gas companies under the jurisdiction of the Commission;

(D) develop means, such as public dissemination of information, consultative services, and technical assistance, to ensure, to the maximum extent practicable, that the interests of energy consumers are adequately represented in the course of any hearing or proceeding described in subparagraph (A);

(E) collect data concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission; and

(F) prepare and issue reports and recommendations.

(4) COMPENSATION AND POWERS- The Director may--

(A) employ and fix the compensation of such staff personnel as is deemed necessary; and

(B) procure temporary and intermittent services as needed.

(5) ACCESS TO INFORMATION- Each department, agency, and instrumentality of the Federal Government is authorized and directed to furnish to the Director such reports and other information as he deems necessary to carry out his functions under this section.

(b) Consumer Advocacy Advisory Committee-

(1) ESTABLISHMENT- The Director shall establish an advisory committee to be known as Consumer Advocacy Advisory Committee (in this section referred

to as the `Advisory Committee') to review rates, services, and disputes and to make recommendations to the Director.

(2) COMPOSITION- The Director shall appoint 5 members to the Advisory Committee including--

(A) 2 individuals representing State Utility Consumer Advocates; and

(B) 1 individual, from a nongovernmental organization, representing consumers.

(3) MEETINGS- The Advisory Committee shall meet at such frequency as may be required to carry out its duties.

(4) REPORTS- The Director shall provide for publication of recommendations of the Advisory Committee on the public website established for the Office.

(5) DURATION- Notwithstanding any other provision of law, the Advisory Committee shall continue in operation during the period in which the Office exists.

(6) APPLICATION OF FACAA- Except as otherwise specifically provided, the Advisory Committee shall be subject to the Federal Advisory Committee Act.

(c) Definitions- In this section:

(1) COMMISSION- The term `Commission' means the Federal Energy Regulatory Commission.

(2) ENERGY CUSTOMER- The term `energy customer' means a residential customer or a small commercial customer that receives products or services from a public utility or natural gas company under the jurisdiction of the Commission.

(3) NATURAL GAS COMPANY- The term `natural gas company' has the meaning given the term in section 2 of the Natural Gas Act (15 U.S.C. 717a).

(4) OFFICE- The term `Office' means the Office of Consumer Advocacy established by subsection (a)(1).

(5) PUBLIC UTILITY- The term `public utility' has the meaning given the term in section 201(e) of the Federal Power Act (16 U.S.C. 824(e)).

(6) SMALL COMMERCIAL CUSTOMER- The term `small commercial customer' means a commercial customer that has a peak demand of not more than 1,000 kilowatts per hour.

(d) Authorization of Appropriations- There are authorized such sums as necessary to carry out this section.

(e) Savings Clause- Nothing in this section affects the rights or obligations of State Utility Consumer Advocates.

**SEC. 152. CLEAN TECHNOLOGY BUSINESS COMPETITION GRANT PROGRAM.**

(a) In General- The Administrator may provide grants to organizations to conduct business competitions that provide incentives, training, and mentorship to entrepreneurs and early stage start-up companies throughout the United States to meet high-priority economic, environmental, and energy goals in areas including air quality, energy efficiency and renewable energy, transportation, water quality and conservation, green buildings, and waste management.

(b) Purposes-

(1) IN GENERAL- The competitions described in subsection (a) shall have the purposes of--

(A) accelerating the development and deployment of clean technology businesses and green jobs;

(B) stimulating green economic development;

(C) providing business training and mentoring to early stage clean technology companies; and

(D) strengthening the competitiveness of United States clean technology industry in world trade markets.

(2) PRIORITY- Priority shall be given to business competitions that--

(A) are led by the private sector;

(B) encourage regional and interregional cooperation; and

(C) can demonstrate market-driven practices and the creation of cost-effective green jobs through an annual publication of competition activities and directory of companies.

(c) Eligibility-

(1) IN GENERAL- To be eligible for a grant under this section, an organization shall be any sponsored entity of an organization described in subparagraph (A) that is operated as a nonprofit entity.

(2) PRIORITY- In making grants under this section, the Administrator shall give priority to organizations that can demonstrate broad funding support from private and other non-Federal funding sources to leverage Federal investment.

(d) Authorization of Appropriations- There is authorized to be appropriated to carry out this section \$20,000,000.

**SEC. 153. PRODUCT CARBON DISCLOSURE PROGRAM.**

(a) EPA Study- The Administrator shall conduct a study to determine the feasibility of establishing a national program for measuring, reporting, publicly disclosing, and

labeling products or materials sold in the United States for their carbon content, and shall, not later than 18 months after the date of enactment of this Act, transmit a report to Congress which shall include the following:

- (1) A determination of whether a national product carbon disclosure program and labeling program would be effective in achieving the intended goals of achieving greenhouse gas reductions and an examination of existing programs globally and their strengths and weaknesses.
- (2) Criteria for identifying and prioritizing sectors and products and processes that should be covered in such program or programs.
- (3) An identification of products, processes, or sectors whose inclusion could have a substantial carbon impact (prioritizing industrial products such as iron and steel, aluminum, cement, chemicals, and paper products, and also including food, beverage, hygiene, cleaning, household cleaners, construction, metals, clothing, semiconductor, and consumer electronics).
- (4) Suggested methodology and protocols for measuring the carbon content of the products across the entire carbon lifecycle of such products for use in a carbon disclosure program and labeling program.
- (5) A review of existing greenhouse gas product accounting standards, methodologies, and practices including the Greenhouse Gas Protocol, ISO 14040/44, ISO 14067, and Publically Available Specification 2050, and including a review of the strengths and weaknesses of each.
- (6) A survey of secondary databases including the Manufacturing Energy Consumption Survey, an evaluation of the quality of data for use in a product carbon disclosure program and product carbon labeling program, an identification of gaps in the data relative to the potential purposes of a national product carbon disclosure program and product carbon labeling program, and development of recommendations for addressing these data gaps.
- (7) An assessment of the utility of comparing products and the appropriateness of product carbon standards.
- (8) An evaluation of the information needed on a label for clear and accurate communication, including what pieces of quantitative and qualitative information need to be disclosed.
- (9) An evaluation of the appropriate boundaries of the carbon lifecycle analysis for different sectors and products.
- (10) An analysis of whether default values should be developed for products whose producer does not participate in the program or does not have data to support a disclosure or label and a determination of the best ways to develop such default values.
- (11) A recommendation of certification and verification options necessary to assure the quality of the information and avoid greenwashing or the use of insubstantial or meaningless environmental claims to promote a product.

(12) An assessment of options for educating consumers about product carbon content and the product carbon disclosure program and product carbon labeling program.

(13) An analysis of the costs and timelines associated with establishing a national product carbon disclosure program and product carbon labeling program, including options for a phased approach. Costs should include those for businesses associated with the measurement of carbon footprints and those associated with creating a product carbon label and managing and operating a product carbon labeling program, and options for minimizing these costs.

(14) An evaluation of incentives (such as financial incentives, brand reputation, and brand loyalty) to determine whether reductions in emissions can be accelerated through encouraging more efficient manufacturing or by encouraging preferences for lower-emissions products to substitute for higher-emissions products whose level of performance is no better.

(b) Development of National Carbon Disclosure Program- Upon conclusion of the study, and not later than 3 years after the date of enactment of this Act, the Administrator shall establish a national product carbon disclosure program, participation in which shall be voluntary, and which may involve a product carbon label with broad applicability to the wholesale and consumer markets to enable and encourage knowledge about carbon content by producers and consumers and to inform efforts to reduce energy consumption (carbon dioxide equivalent emissions) nationwide. In developing such a program, the Administrator shall--

(1) consider the results of the study conducted under subsection (a);

(2) consider existing and planned programs and proposals and measurement standards (including the Publicly Available Specification 2050, standards to be developed by the World Resource Institute/World Business Council for Sustainable Development, the International Standards Organization, and the bill AB19 pending in the California legislature as of the date of enactment of this Act);

(3) consider the compatibility of a national product carbon disclosure program with existing programs;

(4) utilize incentives and other means to spur the adoption of product carbon disclosure and product carbon labeling;

(5) develop protocols and parameters for a product carbon disclosure program, including a methodology and formula for assessing, verifying, and potentially labeling a product's greenhouse gas content, and for data quality requirements to allow for product comparison;

(6) create a means to--

(A) document best practices;

(B) ensure clarity and consistency;

(C) work with suppliers, manufacturers, and retailers to encourage participation;

(D) ensure that protocols are consistent and comparable across like products; and

(E) evaluate the effectiveness of the program;

(7) make publicly available information on product carbon content to ensure transparency;

(8) provide for public outreach, including a consumer education program to increase awareness;

(9) develop training and education programs to help businesses learn how to measure and communicate their carbon footprint and easy tools and templates for businesses to use to reduce cost and time to measure their products' carbon lifecycle;

(10) consult with the Secretary of Energy, the Secretary of Commerce, the Federal Trade Commission, and other Federal agencies, as necessary;

(11) gather input from stakeholders through consultations, public workshops, or hearings with representatives of consumer product manufacturers, consumer groups, and environmental groups;

(12) utilize systems for verification and product certification that will ensure that claims manufacturers make about their products are valid;

(13) create a process for reviewing the accuracy of product carbon label information and protecting the product carbon label in the case of a change in the product's energy source, supply chain, ingredients, or other factors, and specify the frequency to which data should be updated; and

(14) develop a standardized, easily understandable carbon label, if appropriate, and create a process for responding to inaccuracies and misuses of such a label.

(c) Report to Congress- Not later than 5 years after the program is established pursuant to subsection (b), the Administrator shall report to Congress on the effectiveness and impact of the program, the level of voluntary participation, and any recommendations for additional measures.

(d) Definitions- In this section:

(1) The term `carbon content' means the quantity of greenhouse gas emissions and the warming impact of those emissions on the atmosphere expressed in carbon dioxide equivalent associated with a product's value chain.

(2) The term `carbon footprint' means the level of greenhouse gas emissions produced by a particular activity, service, or entity.

(3) The term `carbon lifecycle' means the greenhouse gas emissions that are released as part of the processes of creating, producing, processing, manufacturing, modifying, transporting, distributing, storing, using, recycling, or disposing of goods and services.

(e) Authorization of Appropriations- There is authorized to be appropriated to the Administrator--

(1) to carry out the study required by subsection (a), \$5,000,000; and

(2) to carry out the program required under subsection (b), \$25,000,000 for each of fiscal years 2010 through 2025.

## **SEC. 154. STATE RECYCLING PROGRAMS.**

(a) Establishment- The Administrator shall establish a State Recycling Program governing the use of funds by States in accordance with this Act.

(b) Use of Funding-

(1) IN GENERAL- States receiving funding to carry out this section shall use the proceeds to carry out recycling programs in accordance with this section.

(2) COUNTY AND MUNICIPAL PROGRAMS- Not less than 1/4 of the funding made available to a State to carry out this section shall be distributed by the State to county and municipal recycling programs as described in subsection (c)(1), to be used exclusively to support recycling purposes and associated source reduction purposes, including to provide incentives--

(A) for recycling-related technology that--

(i) reduces or avoids greenhouse gas emissions;

(ii) increases collection rates; and

(iii) improves the quality of recyclable material that is separated from solid waste;

(B) for energy-efficiency projects for transportation fleets and recycling equipment used to collect and sort recyclable material separated from solid waste;

(C) for recycling program-related expenses, including--

(i) education and job training;

(ii) development and implementation of variable rate (commonly referred to as `pay-as-you-throw') recycling programs and anaerobic digestion programs;

(iii) promotion of public space recycling programs;

(iv) approaches for assuring compliance with recycling requirements; and

(v) development or implementation of best practices for municipal solid waste reduction programs; and

(D) to ensure that recyclable material is not sent for disposal or incineration during fluctuating markets.

(3) RECYCLING FACILITIES- Not less than 1/4 of the funding made available to a State to carry out this section shall be distributed by the State to eligible recycling facilities as described in subsection (c)(2) to be used exclusively to support the recycling purposes and associated source reduction purposes of the facilities, including to provide--

(A) incentives for the demonstration or deployment of recycling-related technology and equipment that reduce or avoid greenhouse gas emissions;

(B) incentives to facilities that increase the quantity and quality of recyclable material that is recycled versus sent for disposal or incineration;

(C) funding for research, management, and removal of impediments to recycling, including--

(i) radioactive material; and

(ii) devices or materials that contain polychlorinated biphenyls, mercury, or chlorofluorocarbons;

(D) funding for research on, and development and deployment of, new technologies to more efficiently and effectively recycle items such as automobile shredder residue, cathode ray tubes, plastics, and tires; and

(E) incentives to recycle materials identified by the Administrator that are not being recycled at a recycling facility.

(4) MANUFACTURING FACILITIES- Not less than 1/4 of the funding made available to a State to carry out this section shall be distributed by the State to eligible manufacturing facilities as described in subsection (c)(3) to be used exclusively to support recycling purposes, including to provide incentives for the demonstration or deployment of--

(A) manufacturing-related technology and equipment that would increase the use of recyclable material and avoid or reduce greenhouse gas emissions;

(B) radiation detection equipment and the costs associated with recovery of detected radiated recyclable material;

(C) technologies that will detect and separate contaminants, including mercury-, lead-, and cadmium-containing devices;

(D) strategies and technologies to remove impediments to recovering recyclable material; and

(E) strategies and technologies to improve the energy efficiency of technology and equipment used to manufacture recyclable material.

(c) Eligibility Requirements-

(1) COUNTY AND MUNICIPALITY PROGRAMS- Funds provided under subsection (b)(2) shall be provided on a competitive basis to county and municipal recycling programs that--

(A) have within the solid waste management plans of the programs a recycling management plan that includes an education outreach program for the individuals and entities served by the program constituency that highlights the lifecycle benefits of recycling; and

(B) collect at least 5 recyclable materials, such as--

- (i) ferrous and nonferrous metal;
- (ii) aluminum;
- (iii) plastic;
- (iv) tires and rubber;
- (v) household electronic equipment;
- (vi) glass;
- (vii) scrap food;
- (viii) recoverable fiber or paper; and
- (ix) textiles;

(C) demonstrate, not later than 3 years after the date of receipt of funds under this subtitle, reasonable progress toward achieving--

- (i) a collection rate goal of at least 30 percent of the total recyclable materials available from the solid waste stream in the requesting State, county, or municipal program; or
- (ii) a 10-percent increase of collected recyclable materials compared to the total solid waste stream in the requesting State, county, or municipal program; and

(D)(i) own, operate, or contract to operate--

- (I) a curbside recyclables collection program;
- (II) a redemption center or drop-off facility for recyclables; and
- (III) a materials recovery facility; and

(ii) have in place a quality, environmental, health, and safety management system (such as that of the International Standards

Organization or an equivalent) that includes goals to reduce the operational carbon baselines of the programs.

(2) RECYCLING FACILITY- Funds provided under subsection (b)(3) shall be provided on a competitive basis to a recycling facility that--

(A) processes recyclable material into commercial specification-grade commodities for use as raw material feed stock at recovery facilities, including for use as--

(i) a replacement or substitute for a virgin raw material; or

(ii) a replacement or substitute for a product made, in whole or in part, from a virgin raw material;

(B) has a verifiable carbon baseline; and

(C) has an environmental, health and safety, and quality management system (such as that of the International Standards Organization or an equivalent) that includes goals to reduce the operational carbon baseline of the recycling facility per unit of material processed.

(3) MANUFACTURING FACILITY- Funds provided under subsection (b)(4) shall be provided on a competitive basis to a manufacturing facility that--

(A) can report on a verifiable carbon baseline that is consistent with applicable reporting requirements; and

(B) has an environmental, health and safety, and quality management system (such as that of the International Standards Organization or an equivalent) that includes goals to reduce the operational carbon baseline of the manufacturing facility per unit of material processed.

(d) Reporting- Each State that distributes funds under this section shall submit to the Administrator, in accordance with such requirements as the Administrator may prescribe, a report that includes--

(1) a list of entities receiving funding under this section, including entities receiving such funding from units of local government pursuant to subsection (b)(2);

(2) the amount of funding received by each such recipient;

(3) the specific purposes for which the funding was conveyed to each such recipient; and

(4) documentation of the quantity of net recyclable material that was collected and processed and greenhouse gas emissions that were reduced or avoided accordingly, through use of the funding, based on a lifecycle calculation developed by the Administrator.

(e) Methodology and Decisionmaking- The Administrator, as appropriate--

(1) shall develop and periodically update lifecycle methods to quantify the relationship between waste management decisions, including recycling and waste reduction, greenhouse gas reductions, and energy use reductions, for purposes that include--

(A) helping to support decisions under Federal, State, and municipal recycling and waste management programs, including--

(i) estimating greenhouse gas and energy benefits of increasing collection or adding new materials to recycling programs;

(ii) comparing the benefits of recycling and waste reduction to other greenhouse gas and energy use reduction strategies;

(iii) optimizing waste management strategies to maximize greenhouse gas reductions and energy use reductions; and

(iv) public education; and

(B) designing products to optimize waste reduction and recycling opportunities and use of recycled materials in the manufacturing process;

(2) may collect data to support the development of the methods described in paragraph (1); and

(3) to improve national consistency, shall, in consultation with appropriate State and local representatives and municipal recycling programs, identify best practices to promote improvement in, and support State efforts in improving, municipal recycling and resource recovery programs.

## **SEC. 155. SUPPLEMENTAL AGRICULTURE AND FORESTRY GREENHOUSE GAS REDUCTION AND RENEWABLE ENERGY PROGRAM.**

(a) Agricultural Greenhouse Gas Reductions-

(1) ESTABLISHMENT-

(A) IN GENERAL- The Secretary of Agriculture (referred to in this section as the `Secretary'), in coordination with the Secretary of the Interior, shall establish a Greenhouse Gas Reduction Incentives Program (referred to in this section as the `program') to provide financial assistance to owners and operators of agricultural land (including land on which specialty crops are produced and private or public land used for grazing) and forest land for projects and activities that measurably increase carbon sequestration or reduce greenhouse gas emissions.

(B) SHARED AUTHORITY- The Secretary shall delegate to the Secretary of the Interior the authority to carry out projects on land under the jurisdiction of or operated by the Department of the Interior.

(2) PRIORITY- In carrying out the program, the Secretary shall give priority to projects or activities that--

(A) reduce greenhouse gas emissions or increase sequestration of greenhouse gases, and achieve significant other environmental benefits, such as the improvements of water or air quality or natural resources; and

(B) reduce greenhouse gas emissions or sequester carbon in agricultural and forestry operations where there are limited recognized opportunities to achieve such emission reductions or sequestration.

(3) ELIGIBLE PROJECTS AND ACTIVITIES- Eligible projects and payments shall include those that--

(A) reflect the comparable amount that the owners or operators would receive in the offset market if not for compliance with environmental laws that preclude the owners and operators from being eligible for receiving an offset credit under a Federal law enacted for the purpose of regulating greenhouse gas emissions;

(B) provide greenhouse gas emission benefits, but do not receive an offset credit or qualify for an early action allowance under a Federal law enacted for the purpose of regulating greenhouse gas emissions, including projects and activities that provide an opportunity to demonstrate and test new or uncertain methods to reduce or sequester emissions;

(C) reward early adopters, including producers that practice no-till agriculture, and ensure that individuals and entities that took action prior to the implementation of a Federal law enacted for the purpose of regulating greenhouse gas emissions are not placed at a competitive disadvantage, including giving special consideration to owners or operators located in jurisdictions with more stringent environmental laws (including regulations), compliance with which precludes the owners or operators from participating such an offset market;

(D) provide incentives for supplemental greenhouse gas emission reductions on private forest land of the United States;

(E) prevent any conversion of land, including native grassland, native prairie, rangeland, cropland, or forested land, that would increase greenhouse gas emissions or a loss of carbon sequestration; or

(F) support action on Federal, State, or tribal land.

(4) REQUIREMENTS- Financial incentives and support provided by the Secretary for a project or activity under this section shall, to the maximum extent practicable--

(A) be directly proportional to the quantity and duration of greenhouse gas emissions reduced or carbon sequestered (except with respect to projects and activities that provide adaptation benefits); and

(B) complement and leverage existing conservation, forestry, and energy program expenditures to provide measurable emission reduction and sequestration benefits that otherwise may not take place or continue to exist.

(5) ELIGIBILITY- An owner or operator shall not be prohibited from participating in the program established under this section due to participation of the owner or operator in other Federal or State conservation or agricultural assistance programs.

(6) FORMS OF ASSISTANCE- The Secretary may use any of the following to provide assistance under this section:

(A) Conservation easements.

(B) Carbon sequestration and mitigation contracts between the owner or operator and the Secretary for the performance of projects or activities that reduce greenhouse gas emissions or sequester carbon.

(C) Financial incentives through timber harvest contracts.

(D) Financial incentives through grazing contracts.

(E) Grants.

(F) Such other forms of assistance as the Secretary determines to be appropriate.

(7) REVERSALS- The Secretary shall specify methods to address intentional or unintentional reversal of carbon sequestration or greenhouse gas emission reductions that occur during the term of a contract or easement under this section.

(8) ACCOUNTING SYSTEMS- In carrying out this section, the Secretary shall develop and implement--

(A) a national accounting system for carbon stocks, sequestration, and greenhouse gas emissions that may be used to assess progress in implementing this section at a national level; and

(B) credible reporting and accounting systems to ensure that incentives provided under this section are achieving stated objectives.

(9) PROGRAM MEASUREMENT, MONITORING, AND VERIFICATION- The Secretary, in consultation with the Administrator--

(A) shall establish and implement protocols that provide reasonable monitoring and verification of compliance with terms associated with assistance provided under this section, including field sampling of actual performance, to develop annual estimates of emission reductions achieved under the program;

(B) shall report annually the total number of tons of carbon dioxide sequestered or the total number of tons of emissions avoided through incentives provided under this section; and

(C) not later than 2 years after the date of enactment of this Act, and at least every 18 months thereafter, submit to Congress and make available to the public on the website of the Department of Agriculture a report that includes--

(i) an estimate of annual and cumulative reductions generated through the program under this section, determined using standardized measures (including economic efficiency); and

(ii) a summary of any changes to the program, in accordance with this section, that will be made as a result of program measurement, monitoring, and verification conducted under this section.

(b) Research Program- The Secretary shall establish by rule a program to conduct research to develop additional projects and activities for crops to find additional techniques and methods to reduce greenhouse gas emissions or sequester greenhouse gases that may or may not meet criteria for a Federal law enacted for the purpose of regulating greenhouse gas emissions.

## **SEC. 156. ECONOMIC DEVELOPMENT CLIMATE CHANGE FUND.**

(a) In General- Title II of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3141 et seq.) is amended by adding at the end the following:

## **SEC. 219. ECONOMIC DEVELOPMENT CLIMATE CHANGE FUND.**

(a) In General- On the application of an eligible recipient, the Secretary may provide technical assistance, make grants, enter into contracts, or otherwise provide amounts for projects--

(1) to promote energy efficiency to enhance economic competitiveness;

(2) to increase the use of renewable energy resources to support sustainable economic development and job growth;

(3) to support the development of conventional energy resources to produce alternative transportation fuels, electricity and heat;

(4) to develop energy efficient or environmentally sustainable infrastructure;

(5) to promote environmentally sustainable economic development practices and models;

(6) to support development of energy efficiency and alternative energy development plans, studies or analysis, including enhancement of new and existing Comprehensive Economic Development Strategies funded under this Act; and

^ (7) to supplement other Federal grants, loans, or loan guarantees for purposes described in paragraphs (1) through (6).

^ (b) Federal Share- The Federal share of the cost of any project carried out under this section shall not exceed 80 percent, except that the Federal share of a Federal grant, loan, or loan guarantee provided under subsection (a)(7) may be 100 percent.

^ (c) Authorization of Appropriations- There is authorized to be appropriated to carry out this section \$50,000,000 for each of fiscal years 2009 through 2013, to remain available until expended.'.

(b) Conforming Amendment- The table of contents contained in section 1(b) of the Public Works and Economic Development Act of 1965 (42 U.S.C. 3141 et seq.) is amended by inserting after the item relating to section 218 the following:

^ Sec. 219. Economic Development Climate Change Fund.'.

## **SEC. 157. STUDY OF RISK-BASED PROGRAMS ADDRESSING VULNERABLE AREAS.**

(a) In General- The Administrator, or the heads of such other Federal agencies as the President may designate, shall conduct a study and, not later than 2 years after the date of enactment of this Act, submit to Congress a report regarding risk-based policies and programs addressing vulnerable areas.

(b) Requirements- The report shall

(1) review and assess Federal predisaster mitigation, emergency response, and flood insurance policies and programs that affect areas vulnerable to the impacts of climate change;

(2) describe strategies for better addressing such vulnerabilities and provide implementation recommendations;

(3) assess whether the policies and programs described in paragraph (1) support the State response and adaptation goals and objectives identified under this Act;

(4) identify, and make recommendations to resolve, inconsistencies in Federal policies and programs in effect as of the date of enactment of this Act that address areas vulnerable to climate change; and

(5) identify annual cost savings to the Federal Government associated with the implementation of the strategies and recommendations contained in the report.

### **Subtitle F--Energy Efficiency and Renewable Energy**

## **SEC. 161. RENEWABLE ENERGY.**

(a) Definitions- In this section:

(1) RENEWABLE ENERGY- The term `renewable energy' means electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

(2) RENEWABLE PORTFOLIO STANDARD- The term `renewable portfolio standard' means a State statute that requires electricity providers to obtain a minimum percentage of their power from renewable energy resources by a certain date.

(b) Grants- The Administrator, in consultation with the Secretaries of Energy, Interior, and Agriculture, may provide grants for projects to increase the quantity of energy a State uses from renewable sources under State renewable portfolio standard laws.

(c) Eligibility- The Administrator shall review for approval projects applications that are--

(1) submitted by State and local governments, Indian tribes, public utilities, regional energy cooperatives, or individual energy producers from states with a binding Renewable Portfolio Standard; or

(2) submitted by State and local governments, Indian tribes, public utilities, or regional energy cooperatives from States with nonbinding goals for adoption of renewable energy requirements.

(d) Priority- The Administrator shall give priority to project applications that are--

(1) submitted by States with a binding renewable portfolio standard;

(2) cost-effective in achieving greater renewable energy production in each State.

(e) Certification-

(1) IN GENERAL- The Administrator shall notify in writing the Governor of each eligible State as described in section (c) at the time at which the Administrator begins review of a project application received from an eligible entity within the State.

(2) CERTIFICATION- The Governor shall certify in writing within 30 days of receipt of the Administrator's notification described in subsection (1) that the project application--

(A) will assist the State in reaching renewable portfolio standard targets under applicable state laws; and

(B) has secured non-Federal funding sources that, in conjunction with the requested grant amount, will be sufficient to complete the renewable energy project.

(f) Rulemaking-

(1) IN GENERAL- Not later than 90 days after the date of enactment of this Act, the Administrator shall initiate rulemaking procedures necessary to implement this section.

(2) FINAL RULES; ACCEPTANCE OF APPLICATIONS- Not later than 90 days after the close of the public comment period relating to the rulemaking described in paragraph (1), the Administrator shall--

(A) promulgate final regulations to carry out this section; and

(B) begin accepting project applications for review.

(g) Reporting- Not later than 180 days after the date of enactment of this Act, and every 180 days thereafter, 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 specifying, with respect to the program under this section--

(1) the project applications received;

(2) the project applications approved;

(3) the amount of funding allocated per project; and

(4) the cumulative benefits of the grant program.

(h) Grant Amount- A grant provided under this section may be in an amount that does not exceed 50 percent of the total cost of the renewable energy project to be funded by the grant.

(i) Authorization- There are authorized to be appropriated such sums as are necessary to carry out this section.

## **SEC. 162. ADVANCED BIOFUELS.**

(a) Definitions- In this section:

(1) ADVANCED BIOFUEL- The term `advanced biofuel' shall have such meaning as is given the term by the Administrator in regulations promulgated under subsection (c).

(2) ELIGIBLE ENTITY- The term `eligible entity' means an individual, corporate entity, unit of State or local government, Indian tribe, farm cooperative, institution of higher learning, rural electric cooperative, or public utility.

(b) Grants- The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may provide grants to support research and development of advanced biofuels.

(c) Regulations-

(1) IN GENERAL- Not later than 18 months after the date of enactment of this Act, the Administrator shall promulgate regulations to carry out this section

(including a definition of the term 'advanced biofuel' for the purpose of providing assistance under this section).

(2) REQUIREMENTS- The regulations promulgated under paragraph (1) shall--

(A) provide that the Administrator shall make grants available to eligible entities to support--

(i) research regarding the production of advanced biofuels;

(ii) the development of new advanced biofuel production and capacity-building technologies;

(iii) the development and construction of commercial-scale advanced biofuel production facilities; and

(iv) the expanded production of advanced biofuels;

(B) provide that, to receive a grant under this section, an eligible entity shall submit to the Administrator--

(i) a project proposal with detailed project information, as determined by the Administrator; and

(ii) such records as the Administrator may require as evidence of the production of advanced biofuels or the importance and necessity of advanced biofuels research and new technologies; and

(C) include appropriate cost-sharing requirements developed by the Administrator for grant awards for authorized uses of funds under this section.

(3) PRIORITY- The Administrator shall give priority to eligible entities based on--

(A) technical and economic feasibility of a project proposal;

(B) cost-effectiveness of a project proposal;

(C) the use of innovative technologies in a project proposal;

(D) the availability of non-Federal resources, including private resources, to fund the project proposal; and

(E) whether the project proposed can be replicated.

## **SEC. 163. ENERGY EFFICIENCY IN BUILDING CODES.**

(a) Energy Efficiency Targets-

(1) RULEMAKING TO ESTABLISH TARGETS- The Administrator, or such other agency head or heads as may be designated by the President, in consultation with the Director of the National Institute of Standards and Technology, shall promulgate regulations establishing building code energy efficiency targets for the national average percentage improvement of buildings' energy

performance. Such regulations shall establish a national building code energy efficiency target for residential buildings and commercial buildings when built to a code meeting the target, beginning not later than January 1, 2014 and applicable each calendar year through December 31, 2030.

(b) National Energy Efficiency Building Codes-

(1) RULEMAKING TO ESTABLISH NATIONAL CODES- The Administrator, or such other agency head or heads as may be designated by the President, shall promulgate regulations establishing national energy efficiency building codes for residential and commercial buildings. Such regulations shall be sufficient to meet the national building code energy efficiency targets established under subsection (a) in the most cost-effective manner, and may include provisions for State adoption of the national building code standards and certification of State programs

(c) Annual Reports- The Administrator, or such other agency head or heads as may be designated by the President, shall annually submit to Congress, and publish in the Federal Register, a report on--

(1) the status of national energy efficiency building codes;

(2) the status of energy efficiency building code adoption and compliance in the States;

(3) the implementation of and compliance with regulations promulgated under this section;

(4) the status of Federal and State enforcement of building codes; and

(5) impacts of action under this section, and potential impacts of further action, on lifetime energy use by buildings, including resulting energy and cost savings.

## **SEC. 164. RETROFIT FOR ENERGY AND ENVIRONMENTAL PERFORMANCE.**

(a) Definitions- For purposes of this section:

(1) ASSISTED HOUSING- The term `assisted housing' means those properties receiving project-based assistance pursuant to section 202 of the Housing Act of 1959 (12 U.S.C. 1701q), section 811 of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 8013), section 8 of the United States Housing Act of 1937 (42 U.S.C. 1437f), or similar programs.

(2) NONRESIDENTIAL BUILDING- The term `nonresidential building' means a building with a primary use or purpose other than residential housing, including any building used for commercial offices, schools, academic and other public and private institutions, nonprofit organizations including faith-based organizations, hospitals, hotels, and other nonresidential purposes. Such buildings shall include mixed-use properties used for both residential and nonresidential purposes in which more than half of building floor space is nonresidential.

(3) PERFORMANCE-BASED BUILDING RETROFIT PROGRAM- The term `performance-based building retrofit program' means a program that determines building energy efficiency success based on actual measured savings after a retrofit is complete, as evidenced by energy invoices or evaluation protocols.

(4) PRESCRIPTIVE BUILDING RETROFIT PROGRAM- The term `prescriptive building retrofit program' means a program that projects building retrofit energy efficiency success based on the known effectiveness of measures prescribed to be included in a retrofit.

(5) PUBLIC HOUSING- The term `public housing' means properties receiving assistance under section 9 of the United States Housing Act of 1937 (42 U.S.C. 1437g).

(6) ReCOMMISSIONING; RETROCOMMISSIONING- The terms `recommissioning' and `retrocommissioning' have the meaning given those terms in section 543(f)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(f)(1)).

(7) RESIDENTIAL BUILDING- The term `residential building' means a building whose primary use is residential. Such buildings shall include single-family homes (both attached and detached), owner-occupied units in larger buildings with their own dedicated space-conditioning systems, apartment buildings, multi-unit condominium buildings, public housing, assisted housing, and buildings used for both residential and nonresidential purposes in which more than half of building floor space is residential.

(8) STATE ENERGY PROGRAM- The term `State Energy Program' means the program under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.).

(b) Establishment- The Administrator shall develop and implement, in consultation with the Secretary of Energy, standards for a national energy and environmental building retrofit policy for single-family and multifamily residences. The Administrator shall develop and implement, in consultation with the Secretary of Energy and the Director of Commercial High-Performance Green Buildings, standards for a national energy and environmental building retrofit policy for nonresidential buildings. The programs to implement the residential and nonresidential policies based on the standards developed under this section shall together be known as the Retrofit for Energy and Environmental Performance (REEP) program.

(c) Purpose- The purpose of the REEP program is to facilitate the retrofitting of existing buildings across the United States to achieve maximum cost-effective energy efficiency improvements and significant improvements in water use and other environmental attributes.

(d) Federal Administration-

(1) EXISTING PROGRAMS- In creating and operating the REEP program--

(A) the Administrator shall make appropriate use of existing programs, including the Energy Star program and in particular the Environmental Protection Agency Energy Star for Buildings program; and

(B) the Administrator shall consult with the Secretary of Energy regarding appropriate use of existing programs, including delegating authority to the Director of Commercial High-Performance Green Buildings appointed under section 421 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17081).

(2) CONSULTATION AND COORDINATION- The Administrator shall consult with and coordinate with the and the Secretary of Energy and the Secretary of Housing and Urban Development in carrying out the REEP program with regard to retrofitting of public housing and assisted housing. As a result of such consultation, the Administrator shall establish standards to ensure that retrofits of public housing and assisted housing funded pursuant to this section are cost-effective, including opportunities to address the potential co-performance of repair and replacement needs that may be supported with other forms of Federal assistance. Owners of public housing or assisted housing receiving funding through the REEP program shall agree to continue to provide affordable housing consistent with the provisions of the authorizing legislation governing each program for an additional period commensurate with the funding received, as determined in accordance with guidelines established by the Secretary of Housing and Urban Development.

(3) ASSISTANCE- The Administrator shall provide consultation and assistance to State and local agencies for the establishment of revolving loan funds, loan guarantees, or other forms of financial assistance under this section.

(e) State and Local Administration-

(1) DESIGNATION AND DELEGATION- A State may designate one or more agencies or entities, including those regulated by the State, to carry out the purposes of this section, but shall designate one entity or individual as the principal point of contact for the Administrator regarding the REEP Program. The designated State agency, agencies, or entities may delegate performance of appropriate elements of the REEP program, upon their request and subject to State law, to counties, municipalities, appropriate public agencies, and other divisions of local government, as well as to entities regulated by the State. In making any such designation or delegation, a State shall give priority to entities that administer existing comprehensive retrofit programs, including those under the supervision of State utility regulators. States shall maintain responsibility for meeting the standards and requirements of the REEP program. In any State that elects not to administer the REEP program, a unit of local government may propose to do so within its jurisdiction, and if the Administrator finds that such local government is capable of administering the program, the Administrator may provide assistance to that local government, prorated according to the population of the local jurisdiction relative to the population of the State, for purposes of the REEP program.

(2) EMPLOYMENT- States and local government entities may administer a REEP program in a manner that authorizes public or regulated investor-owned utilities, building auditors and inspectors, contractors, nonprofit organizations,

for-profit companies, and other entities to perform audits and retrofit services under this section. A State may provide incentives for retrofits without direct participation by the State or its agents, so long as the resulting savings are measured and verified. A State or local administrator of a REEP program shall seek to ensure that sufficient qualified entities are available to support retrofit activities so that building owners have a competitive choice among qualified auditors, raters, contractors, and providers of services related to retrofits. Nothing in this section is intended to deny the right of a building owner to choose the specific providers of retrofit services to engage for a retrofit project in that owner's building.

(3) EQUAL INCENTIVES FOR EQUAL IMPROVEMENT- In general, the States should strive to offer the same levels of incentives for retrofits that meet the same efficiency improvement goals, regardless of whether the State, its agency or entity, or the building owner has conducted the retrofit achieving the improvement, provided the improvement is measured and verified.

(f) Elements of Reep Program- The Administrator, in consultation with the Secretary of Energy, shall establish goals, guidelines, practices, and standards for accomplishing the purpose stated in subsection (c), and shall annually review and, as appropriate, revise such goals, guidelines, practices, and standards. The program under this section shall include the following:

(1) Residential Energy Services Network (RESNET) or Building Performance Institute (BPI) analyst certification of residential building energy and environment auditors, inspectors, and raters, or an equivalent certification system as determined by the Administrator.

(2) BPI certification or licensing by States of residential building energy and environmental retrofit contractors, or an equivalent certification or licensing system as determined by the Administrator.

(3) Provision of BPI, RESNET, or other appropriate information on equipment and procedures, as determined by the Administrator, that contractors can use to test the energy and environmental efficiency of buildings effectively (such as infrared photography and pressurized testing, and tests for water use and indoor air quality).

(4) Provision of clear and effective materials to describe the testing and retrofit processes for typical buildings.

(5) Guidelines for offering and managing prescriptive building retrofit programs and performance-based building retrofit programs for residential and nonresidential buildings.

(6) Guidelines for applying recommissioning and retrocommissioning principles to improve a building's operations and maintenance procedures.

(7) A requirement that building retrofits conducted pursuant to a REEP program utilize, especially in all air-conditioned buildings, roofing materials with high solar energy reflectance, unless inappropriate due to green roof management, solar energy production, or for other reasons identified by the Administrator, in order to reduce energy consumption within the building,

increase the albedo of the building's roof, and decrease the heat island effect in the area of the building, without reduction of otherwise applicable ceiling insulation standards.

(8) Determination of energy savings in a performance-based building retrofit program through--

(A) for residential buildings, comparison of before and after retrofit scores on the Home Energy Rating System (HERS) Index, where the final score is produced by an objective third party;

(B) for nonresidential buildings, Environmental Protection Agency Portfolio Manager benchmarks; or

(C) for either residential or nonresidential buildings, use of an Administrator-approved simulation program by a contractor with the appropriate certification, subject to appropriate software standards and verification of at least 15 percent of all work done, or such other percentage as the Administrator may determine.

(9) Guidelines for utilizing the Energy Star Portfolio Manager, the Home Energy Rating System (HERS) rating system, Home Performance with Energy Star program approvals, and any other tools associated with the retrofit program.

(10) Requirements and guidelines for post-retrofit inspection and confirmation of work and energy savings.

(11) Detailed descriptions of funding options for the benefit of State and local governments, along with model forms, accounting aids, agreements, and guides to best practices.

(12) Guidance on opportunities for--

(A) rating or certifying retrofitted buildings as Energy Star buildings, or as green buildings under a recognized green building rating system;

(B) assigning Home Energy Rating System (HERS) or similar ratings; and

(C) completing any applicable building performance labels.

(13) Sample materials for publicizing the program to building owners, including public service announcements and advertisements.

(14) Processes for tracking the numbers and locations of buildings retrofitted under the REEP program, with information on projected and actual savings of energy and its value over time.

(g) Requirements- As a condition of receiving assistance for the REEP program pursuant to this Act, a State or qualifying local government shall--

(1) adopt the standards for training, certification of contractors, certification of buildings, and post-retrofit inspection as developed by the Administrator

for residential and nonresidential buildings, respectively, except as necessary to match local conditions, needs, efficiency opportunities, or other local factors, or to accord with State laws or regulations, and then only after the Administrator approves such a variance;

(2) establish fiscal controls and accounting procedures (which conform to generally accepted government accounting principles) sufficient to ensure proper accounting during appropriate accounting periods for payments received and disbursements, and for fund balances;

(3) agree to make 10 percent of assistance received to carry out this section available on a preferential basis for retrofit projects proposed for public housing and assisted housing, provided that--

(A) none of such funds shall be used for demolition of such housing;

(B) such retrofits shall not be used to justify any increase in rents charged to residents of such housing; and

(C) owners of such housing shall agree to continue to provide affordable housing consistent with the provisions of the authorizing legislation governing each program for an additional period commensurate with the funding received; and

(4) the Administrator shall conduct or require each State to have such independent financial audits of REEP-related funding as the Administrator considers necessary or appropriate to carry out the purposes of this section.

(h) Options To Support Reep Program- The assistance provided under this section shall support the implementation through State REEP programs of alternate means of creating incentives for, or reducing financial barriers to, improved energy and environmental performance in buildings, consistent with this section, including--

(1) implementing prescriptive building retrofit programs and performance-based building retrofit programs;

(2) providing credit enhancement, interest rate subsidies, loan guarantees, or other credit support;

(3) providing initial capital for public revolving fund financing of retrofits;

(4) providing funds to support utility-operated retrofit programs with repayments over time through utility rates, calibrated to create net positive cash flow to the building owner, and transferable from one building owner to the next with the building's utility services;

(5) providing funds to local government programs to provide REEP services and financial assistance; and

(6) other means proposed by State and local agencies, subject to the approval of the Administrator.

(i) Support for Program-

(1) INITIAL AWARD LIMITS- Except as provided in paragraph (2), State and local REEP programs may make per-building direct expenditures for retrofit improvements, or their equivalent in indirect or other forms of financial support, from funds made available to carry out this section, in amounts not to exceed the following amounts per unit:

(A) RESIDENTIAL BUILDING PROGRAM-

(i) AWARDS- For residential buildings--

(I) support for a free or low-cost detailed building energy audit that prescribes measures sufficient to achieve at least a 20 percent reduction in energy use, by providing an incentive equal to the documented cost of such audit, but not more than \$200, in addition to any earned by achieving a 20 percent or greater efficiency improvement;

(II) a total of \$1,000 for a combination of measures, prescribed in an audit conducted under subclause (I), designed to reduce energy consumption by more than 10 percent, and \$2,000 for a combination of measures prescribed in such an audit, designed to reduce energy consumption by more than 20 percent;

(III) \$3,000 for demonstrated savings of 20 percent, pursuant to a performance-based building retrofit program; and

(IV) \$1,000 for each additional 5 percentage points of energy savings achieved beyond savings for which funding is provided under subclause (II) or (III).

Funding shall not be provided under clauses (II) and (III) for the same energy savings.

(ii) MAXIMUM PERCENTAGE- Awards under clause (i) shall not exceed 50 percent of retrofit costs for each building. For buildings with multiple residential units, awards under clause (i) shall not be greater than 50 percent of the total cost of retrofitting the building, prorated among individual residential units on the basis of relative costs of the retrofit. In the case of public housing and assisted housing, the 50 percent contribution matching the contribution from REEP program funds may come from any other source, including other Federal funds.

(iii) ADDITIONAL AWARDS- Additional awards may be provided for purposes of increasing energy efficiency, for buildings achieving at least 20 percent energy savings using funding provided under clause (i), in the form of grants of not more than \$600 for measures projected or measured (using an appropriate method approved by the Administrator) to achieve at least 35 percent potable water savings through equipment or systems with an estimated service life of not less than 7 years, and not more than

an additional \$20 may be provided for each additional one percent of such savings, up to a maximum total grant of \$1,200.

(B) NONRESIDENTIAL BUILDING PROGRAM-

(i) AWARDS- For nonresidential buildings--

(I) support for a free or low-cost detailed building energy audit that prescribes, as part of a energy-reducing measures sufficient to achieve at least a 20 percent reduction in energy use, by providing an incentive equal to the documented cost of such audit, but not more than \$500, in addition to any award earned by achieving a 20 percent or greater efficiency improvement;

(II) \$0.15 per square foot of retrofit area for demonstrated energy use reductions from 20 percent to 30 percent;

(III) \$0.75 per square foot for demonstrated energy use reductions from 30 percent to 40 percent;

(IV) \$1.60 per square foot for demonstrated energy use reductions from 40 percent to 50 percent; and

(V) \$2.50 per square foot for demonstrated energy use reductions exceeding 50 percent.

(ii) MAXIMUM PERCENTAGE- Amounts provided under subclauses (II) through (V) of clause (i) combined shall not exceed 50 percent of the total retrofit cost of a building. In nonresidential buildings with multiple units, such awards shall be prorated among individual units on the basis of relative costs of the retrofit.

(iii) ADDITIONAL AWARDS- Additional awards may be provided, for buildings achieving at least 20 percent energy savings using funding provided under clause (i), as follows:

(I) WATER- For purposes of increasing energy efficiency, grants may be made for whole building potable water use reduction (using an appropriate method approved by the Administrator) for up to 50 percent of the total retrofit cost, including amounts up to--

(aa) \$24.00 per thousand gallons per year of potable water savings of 40 percent or more;

(bb) \$27.00 per thousand gallons per year of potable water savings of 50 percent or more; and

(cc) \$30.00 per thousand gallons per year of potable water savings of 60 percent or more.

(II) ENVIRONMENTAL IMPROVEMENTS- Additional awards of up to \$1,000 may be granted for the inclusion of other

environmental attributes that the Administrator, in consultation with the Secretary, identifies as contributing to energy efficiency. Such attributes may include, but are not limited to waste diversion and the use of environmentally preferable materials (including salvaged, renewable, or recycled materials, and materials with no or low-VOC content). The Administrator may recommend that States develop such standards as are necessary to account for local or regional conditions that may affect the feasibility or availability of identified resources and attributes.

(iv) INDOOR AIR QUALITY MINIMUM- Nonresidential buildings receiving incentives under this section must satisfy at a minimum the most recent version of ASHRAE Standard 62.1 for ventilation, or the equivalent as determined by the Administrator. A State may issue a waiver from this requirement to a building project on a showing that such compliance is infeasible due to the physical constraints of the building's existing ventilation system, or such other limitations as may be specified by the Administrator.

(C) DISASTER DAMAGED BUILDINGS- Any source of funds, including Federal funds provided through the Robert T. Stafford Disaster Relief and Emergency Assistance Act, shall qualify as the building owner's 50 percent contribution, in order to match the contribution of REEP funds, so long as the REEP funds are only used to improve the energy efficiency of the buildings being reconstructed. In addition, the appropriate Federal agencies providing assistance to building owners through the Robert T. Stafford Disaster Relief and Emergency Assistance Act shall make information available, following a disaster, to building owners rebuilding disaster damaged buildings with assistance from the Act, that REEP funds may be used for energy efficiency improvements.

(D) HISTORIC BUILDINGS- Notwithstanding subparagraphs (A) and (B), a building in or eligible for the National Register of Historic Places shall be eligible for awards under this paragraph in amounts up to 120 percent of the amounts set forth in subparagraphs (A) and (B).

(E) SUPPLEMENTAL SUPPORT- State and local governments may supplement the per-building expenditures under this paragraph with funding from other sources.

(2) ADJUSTMENT- The Administrator may adjust the specific dollar amounts provided under paragraph (1) in years subsequent to the second year after the date of enactment of this Act, and every 2 years thereafter, as the Administrator determines necessary to achieve optimum cost-effectiveness and to maximize incentives to achieve energy efficiency within the total building award amounts provided in that paragraph, and shall publish and hold constant such revised limits for at least 2 years.

(j) Report to Congress- The Administrator shall conduct an annual assessment of the achievements of the REEP program in each State, shall prepare an annual report of such achievements and any recommendations for program modifications, and shall provide such report to Congress at the end of each fiscal year during

which funding or other resources were made available to the States for the REEP Program.

### **Subtitle G--Emission Reductions From Public Transportation Vehicles**

#### **SEC. 171. SHORT TITLE.**

This subtitle may be cited as the `Green Taxis Act of 2009'.

#### **SEC. 172. STATE FUEL ECONOMY REGULATION FOR TAXICABS.**

Section 32919 of title 49, United States Code, is amended by adding at the end the following new subsection:

`(d) Taxicabs- Notwithstanding subsection (a), a State or political subdivision of a State may prescribe requirements for fuel economy for taxicabs and other automobiles if such requirements are at least as stringent as applicable Federal requirements and if such taxicabs and other automobiles--

`(1) are automobiles that are capable of transporting not more than 10 individuals, including the driver;

`(2) are commercially available or are designed and manufactured pursuant to a contract with such State or political subdivision of such State;

`(3) are operated for hire pursuant to an operating or regulatory license, permit, or other authorization issued by such State or political subdivision of such State;

`(4) provide local transportation for a fare determined on the basis of the time or distance traveled or a combination of time and distance traveled; and

`(5) do not exclusively provide transportation to and from airports.'.

#### **SEC. 173. STATE REGULATION OF MOTOR VEHICLE EMISSIONS FOR TAXICABS.**

Section 209 of the Clean Air Act (42 U.S.C. 7543) is amended by adding at the end the following new subsection:

`(f) Taxicabs- (1) Notwithstanding subsection (a), a State or political subdivision thereof may adopt and enforce standards for the control of emissions from new motor vehicles that are taxicabs and other vehicles if such standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards and if such taxicabs and other vehicles--

`(A) are passenger motor vehicles that are capable of transporting not more than 10 individuals, including the driver;

`(B) are commercially available or are designed and manufactured pursuant to a contract with such State or political subdivision thereof;

^ (C) are operated for hire pursuant to an operating or regulatory license, permit, or other authorization issued by such State or political subdivision thereof;

^ (D) provide local transportation for a fare determined on the basis of the time or distance traveled or a combination of time and distance traveled; and

^ (E) do not exclusively provide transportation to and from airports.

^ (2) If each standard of a State or political subdivision thereof is at least as stringent as the comparable applicable Federal standard, such standard of such State or political subdivision thereof shall be deemed at least as protective of health and welfare as such Federal standards for purposes of this subsection.'.

### **Subtitle H--Clean Energy and Natural Gas**

## **SEC. 181. CLEAN ENERGY AND ACCELERATED EMISSION REDUCTION PROGRAM.**

(a) Establishment-

(1) IN GENERAL- The Administrator shall establish a program to promote dispatchable power generation projects that can accelerate the reduction of power sector carbon dioxide and other greenhouse gas emissions.

(2) USE OF FUNDS- Funds provided under this section shall be used by the Administrator to make incentive payments to owners or operators of eligible projects.

(b) Regulations- Not later than 90 days after the date of enactment of this Act, the Administrator shall promulgate regulations providing for incentives, pursuant to the requirements of this section.

(c) Goal- Not later than 3 years after the date of enactment of this Act, the Administrator shall provide incentives for eligible projects that generate 300,000 gigawatt-hours of electricity per year.

(d) Criteria for Eligible Projects- To be eligible for funding under this section a project must--

(1) reduce emissions below the 2007 average greenhouse gas emissions per megawatt-hour of the United States electric power sector by the quantity specified in subsection (f); and

(2) not receive an investment or production credit in--

(A) the year in which the project is placed in service; or

(B) calendar year 2009, notwithstanding the year in which the project was placed in service.

(e) Priority- The Administrator shall give priority to eligible projects from the following categories:

(1) Power generation projects designed to integrate intermittent renewable power into the bulk-power system.

(2) Energy storage projects used to support renewable energy.

(3) Power generation projects with carbon capture and sequestration that are not eligible for other assistance under this Act.

(4) Projects that achieve the greatest reduction in greenhouse gas emissions per dollar of incentive payment.

(f) Emission Reduction Criteria- For the purposes of subsection (d), the applicable emission reduction quantity shall be determined in accordance with the following table:

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