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April 26, 2002

Ordered to be printed as passed

In the Senate of the United States,

April 25, 2002.

Resolved, That the bill from the House of Representatives (H.R. 4) entitled ''An Act to enhance energy conservation, research and development and to provide for security and diversity in the energy supply for the American people, and for other purposes.'', do pass with the following

AMENDMENT:

Strike out all after the enacting clause and insert:

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Energy Policy Act of 2002''.

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DIVISION A—RELIABLE AND DIVERSE POWER GENERATION AND TRANSMISSION

TITLE I—REGIONAL COORDINATION

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(a) STATEMENT OF POLICY.—It is the policy of the Federal Government to encourage States to coordinate, on a regional basis, State energy policies to provide reliable and affordable energy services to the public while minimizing the impact of providing energy services on communities and the environment.

(b) DEFINITION OF ENERGY SERVICES.—For purposes of this section, the term "energy services" means—

(1) the generation or transmission of electric energy,

(2) the transportation, storage, and distribution of crude oil, residual fuel oil, refined petroleum product, or natural gas, or

(3) the reduction in load through increased efficiency, conservation, or load control measures.

SEC. 102. FEDERAL SUPPORT FOR REGIONAL COORDINATION.

(a) TECHNICAL ASSISTANCE.—The Secretary of Energy shall provide technical assistance to States and regional organizations formed by two or more States to assist them in coordinating their energy policies on a regional basis. Such technical assistance may include assistance in—

(1) identifying the areas with the greatest energy resource potential, and assessing future supply availability and demand requirements,

(2) planning, coordinating, and siting additional energy infrastructure, including generating facilities, electric transmission facilities, pipelines, refineries, and distributed generation facilities to maximize the efficiency of energy resources and infrastructure and meet regional needs with the minimum adverse impacts on the environment,

(3) identifying and resolving problems in distribution networks,

(4) developing plans to respond to surge demand or emergency needs, and

(5) developing renewable energy, energy efficiency, conservation, and load control programs.

(b) ANNUAL CONFERENCE ON REGIONAL ENERGY COORDINATION.—

(1) ANNUAL CONFERENCE.—The Secretary of Energy shall convene an annual conference to promote regional coordination on energy policy and infrastructure issues.

(2) PARTICIPATION.—The Secretary of Energy shall invite appropriate representatives of Federal, State, and regional energy organizations, and other interested parties.

(3) STATE AND FEDERAL AGENCY COOPERATION.—The Secretary of Energy shall consult and cooperate with State and regional energy organizations, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of the Treasury, the Chairman of the Federal Energy Regulatory Commission, the Administrator of the Environmental Protection Agency, and the Chairman of the Council on Environmental Quality in the planning and conduct of the conference.

(4) AGENDA.—The Secretary of Energy, in consultation with the officials identified in paragraph (3) and participants identified in paragraph (2), shall establish an agenda for each conference that promotes regional coordination on energy policy and infrastructure issues.

(5) RECOMMENDATIONS.—Not later than 60 days after the conclusion of each annual conference, the Secretary of Energy shall report to the President and the Congress recommendations arising out of the conference that may improve—

(A) regional coordination on energy policy and infrastructure issues, and

(B) Federal support for regional coordination.

TITLE II—ELECTRICITY

Subtitle A—Amendments to the Federal Power Act

SEC. 201. DEFINITIONS.

(a) DEFINITION OF ELECTRIC UTILITY.—Section 3(22) of the Federal Power Act (16 U.S.C. 796(22)) is amended to read as follows:

"(22) 'electric utility' means any person or Federal or State agency (including any municipality) that sells electric energy; such term includes the Ten-

nessee Valley Authority and each Federal power marketing agency.".

(b) DEFINITION OF TRANSMITTING UTILITY.—Section 3(23) of the Federal Power Act (16 U.S.C. 796(23)) is amended to read as follows:

"(23) TRANSMITTING UTILITY.—The term 'transmitting utility' means an entity (including any entity described in section 201(f)) that owns or operates facilities used for the transmission of electric energy in—

"(A) interstate commerce; or

"(B) for the sale of electric energy at wholesale.".

SEC. 202. ELECTRIC UTILITY MERGERS.

Section 203(a) of the Federal Power Act (16 U.S.C. 824b) is amended to read as follows:

"(a)(1) No public utility shall, without first having secured an order of the Commission authorizing it to do so—

"(A) sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of $10,000,000,

"(B) merge or consolidate, directly or indirectly, such facilities or any part thereof with the facilities of any other person, by any means whatsoever,

"(C) purchase, acquire, or take any security of any other public utility, or

"(D) purchase, lease, or otherwise acquire existing facilities for the generation of electric energy unless such facilities will be used exclusively for the sale of electric energy at retail.

"(2) No holding company in a holding company system that includes a transmitting utility or an electric utility company shall purchase, acquire, or take any security of, or, by any means whatsoever, directly or indirectly, merge or consolidate with a transmitting utility, an electric utility company, a gas utility company, or a holding company in a holding company system that includes a transmitting utility, an electric utility company, or a gas utility company, without first having secured an order of the Commission authorizing it to do so.

"(3) Upon application for such approval the Commission shall give reasonable notice in writing to the Governor and State commission of each of the States in which the physical property affected, or any part thereof, is situated, and to such other persons as it may deem advisable.

"(4) After notice and opportunity for hearing, the Commission shall approve the proposed disposition, consolidation, acquisition, or control, if it finds that the proposed transaction—

"(A) will be consistent with the public interest;

"(B) will not adversely affect the interests of consumers of electric energy of any public utility that is a party to the transaction or is an associate company of any party to the transaction;

"(C) will not impair the ability of the Commission or any State commission having jurisdiction over any public utility that is a party to the transaction or an associate company of any party to the transaction to protect the interests of consumers or the public; and

"(D) will not lead to cross-subsidization of associate companies or encumber any utility assets for the benefit of an associate company.

"(5) The Commission shall, by rule, adopt procedures for the expeditious consideration of applications for the approval of dispositions, consolidations, or acquisitions under this section. Such rules shall identify classes of transactions, or specify criteria for transactions, that normally meet the standards established in paragraph (4), and shall require the Commission to grant or deny an application for approval of a transaction of such type within 90 days after the conclusion of the hearing or opportunity to comment under paragraph (4). If the Commission does not act within 90 days, such application shall be deemed granted unless

the Commission finds that further consideration is required to determine whether the proposed transaction meets the standards of paragraph (4) and issues one or more orders tolling the time for acting on the application for an additional 90 days.

"(6) For purposes of this subsection, the terms 'associate company', 'electric utility company', 'gas utility company', 'holding company', and 'holding company system' have the meaning given those terms in the Public Utility Holding Company Act of 2002.".

SEC. 203. MARKET-BASED RATES.

(a) APPROVAL OF MARKET-BASED RATES.—Section 205 of the Federal Power Act (16 U.S.C. 824d) is amended by adding at the end the following:

"(h) The Commission may determine whether a market-based rate for the sale of electric energy subject to the jurisdiction of the Commission is just and reasonable and not unduly discriminatory or preferential. In making such determination, the Commission shall consider such factors as the Commission may deem to be appropriate and in the public interest, including to the extent the Commission considers relevant to the wholesale power market—

"(1) market power;

"(2) the nature of the market and its response mechanisms; and

"(3) reserve margins.".

(b) REVOCATION OF MARKET-BASED RATES.—Section 206 of the Federal Power Act (16 U.S.C. 824e) is amended by adding at the end the following:

"(f) Whenever the Commission, after a hearing had upon its own motion or upon complaint, finds that a rate charged by a public utility authorized to charge a market-based rate under section 205 is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate and fix the same by order.".

SEC. 204. REFUND EFFECTIVE DATE.

Section 206(b) of the Federal Power Act (16 U.S.C. 824e(b)) is amended by—

(1) striking "the date 60 days after the filing of such complaint nor later than 5 months after the expiration of such 60-day period" in the second sentence and inserting "the date of the filing of such complaint nor later than 5 months after the filing of such complaint";

(2) striking "60 days after" in the third sentence and inserting "of"; and

(3) striking "expiration of such 60-day period" in the third sentence and inserting "publication date".

SEC. 205. OPEN ACCESS TRANSMISSION BY CERTAIN UTILITIES.

Part II of the Federal Power Act is further amended by inserting after section 211 the following:

"OPEN ACCESS BY UNREGULATED TRANSMITTING UTILITIES

"SEC. 211A. (a) Subject to section 212(h), the Commission may, by rule or order, require an unregulated transmitting utility to provide transmission services—

"(1) at rates that are comparable to those that the unregulated transmitting utility charges itself, and

"(2) on terms and conditions (not relating to rates) that are comparable to those under Commission rules that require public utilities to offer open access transmission services and that are not unduly discriminatory or preferential.

"(b) The Commission shall exempt from any rule or order under this subsection any unregulated transmitting utility that—

"(1) sells no more than 4,000,000 megawatt hours of electricity per year;

"(2) does not own or operate any transmission facilities that are necessary for operating an interconnected transmission system (or any portion thereof); or

"(3) meets other criteria the Commission determines to be in the public interest.

"(c) The rate changing procedures applicable to public utilities under subsections (c) and (d) of section 205 are applicable to unregulated transmitting utilities for purposes of this section.

"(d) In exercising its authority under paragraph (1), the Commission may remand transmission rates to an unregulated transmitting utility for review and revision where necessary to meet the requirements of subsection (a).

"(e) The provision of transmission services under subsection (a) does not preclude a request for transmission services under section 211.

"(f) The Commission may not require a State or municipality to take action under this section that constitutes a private business use for purposes of section 141 of the Internal Revenue Code of 1986 (26 U.S.C. 141).

"(g) For purposes of this subsection, the term 'unregulated transmitting utility' means an entity that—

"(1) owns or operates facilities used for the transmission of electric energy in interstate commerce, and

"(2) is either an entity described in section 201(f) or a rural electric cooperative.".

SEC. 206. ELECTRIC RELIABILITY STANDARDS.

Part II of the Federal Power Act (16 U.S.C 824 et seq.) is amended by inserting the following after section 215 as added by this Act:

"SEC. 216. ELECTRIC RELIABILITY.

"(a) DEFINITIONS.—For purposes of this section—

"(1) 'bulk-power system' means the network of interconnected transmission facilities and generating facilities;

"(2) 'electric reliability organization' means a self-regulating organization certified by the Commission under subsection (c) whose purpose is to promote the reliability of the bulk-power system; and

"(3) 'reliability standard' means a requirement to provide for reliable operation of the bulk-power system approved by the Commission under this section.

"(b) JURISIDICTION AND APPLICABILITY.—The Commission shall have jurisdiction, within the United States, over an electric reliability organization, any regional entities, and all users, owners and operators of the bulk-power system, including but not limited to the entities described in section 201(f), for purposes of approving reliability standards and enforcing compliance with this section. All users, owners and operators of the bulk-power system shall comply with reliability standards that take effect under this section.

"(c) CERTIFICATION.—(1) The Commission shall issue a final rule to implement the requirements of this section not later than 180 days after the date of enactment of this section.

"(2) Following the issuance of a Commission rule under paragraph (1), any person may submit an application to the Commission for certification as an electric reliability organization. The Commission may certify an applicant if the Commission determines that the applicant—

"(A) has the ability to develop, and enforce reliability standards that provide for an adequate level of reliability of the bulk-power system;

"(B) has established rules that—

"(i) assure its independence of the users and owners and operators of the bulk-power system; while assuring fair stakeholder representation in the selection of its directors and balanced decisionmaking in any committee or subordinate organizational structure;

"(ii) allocate equitably dues, fees, and other charges among end users for all activities under this section;

"(iii) provide fair and impartial procedures for enforcement of reliability standards through imposition of penalties (including limitations on

activities, functions, or operations, or other appropriate sanctions); and

"(iv) provide for reasonable notice and opportunity for public comment, due process, openness, and balance of interests in developing reliability standards and otherwise exercising its duties.

"(3) If the Commission receives two or more timely applications that satisfy the requirements of this subsection, the Commission shall approve only the application it concludes will best implement the provisions of this section.

"(d) RELIABILITY STANDARDS.—(1) An electric reliability organization shall file a proposed reliability standard or modification to a reliability standard with the Commission.

"(2) The Commission may approve a proposed reliability standard or modification to a reliability standard if it determines that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. The Commission shall give due weight to the technical expertise of the electric reliability organization with respect to the content of a proposed standard or modification to a reliability standard, but shall not defer with respect to its effect on competition.

"(3) The electric reliability organization and the Commission shall rebuttably presume that a proposal from a regional entity organized on an interconnection-wide basis for a reliability standard or modification to a reliability standard to be applicable on an interconnection-wide basis is just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

"(4) The Commission shall remand to the electric reliability organization for further consideration a proposed reliability standard or a modification to a reliability standard that the Commission disapproves in whole or in part.

"(5) The Commission, upon its own motion or upon complaint, may order an electric reliability organization to submit to the Commission a proposed reliability standard or a modification to a reliability standard that addresses a specific matter if the Commission considers such a new or modified reliability standard appropriate to carry out this section.

"(e) ENFORCEMENT.—(1) An electric reliability organization may impose a penalty on a user or owner or operator of the bulk-power system if the electric reliability organization, after notice and an opportunity for a hearing—

"(A) finds that the user or owner or operator of the bulk-power system has violated a reliability

standard approved by the Commission under subsection (d); and

"(B) files notice with the Commission, which shall affirm, set aside or modify the action.

"(2) On its own motion or upon complaint, the Commission may order compliance with a reliability standard and may impose a penalty against a user or owner or operator of the bulk-power system, if the Commission finds, after notice and opportunity for a hearing, that the user or owner or operator of the bulk-power system has violated or threatens to violate a reliability standard.

"(3) The Commission shall establish regulations authorizing the electric reliability organization to enter into an agreement to delegate authority to a regional entity for the purpose of proposing and enforcing reliability standards (including related activities) if the regional entity satisfies the provisions of subsection (c)(2) (A) and (B) and the agreement promotes effective and efficient administration of bulk-power system reliability, and may modify such delegation. The electric reliability organization and the Commission shall rebuttably presume that a proposal for delegation to a regional entity organized on an interconnection-wide basis promotes effective and efficient administration of bulk-power system reliability and should be approved. Such regulation may provide that the Commission

may assign the electric reliability organization's authority to enforce reliability standards directly to a regional entity consistent with the requirements of this paragraph.

"(4) The Commission may take such action as is necessary or appropriate against the electric reliability organization or a regional entity to ensure compliance with a reliability standard or any Commission order affecting the electric reliability organization or a regional entity.

"(f) CHANGES IN ELECTRICITY RELIALB1LITY ORGANIZATION RULES.—An electric reliability organization shall file with the Commission for approval any proposed rule or proposed rule change, accompanied by an explanation of its basis and purpose. The Commission, upon its own motion or complaint, may propose a change to the rules of the electric reliability organization. A proposed rule or proposed rule change shall take effect upon a finding by the Commission, after notice and opportunity for comment, that the change is just, reasonable, not unduly discriminatory or preferential, is in the public interest, and satisfies the requirements of subsection (c)(2).

"(g) COORDINATION WITH CANADA AND MEXICO.—(1) The electric reliability organization shall take all appropriate steps to gain recognition in Canada and Mexico.

"(2) The President shall use his best efforts to enter into international agreements with the governments of Can-

ada and Mexico to provide for effective compliance with reliability standards and the effectiveness of the electric reliability organization in the United States and Canada or Mexico.

"(h) RELIABILITY REPORTS.—The electric reliability organization shall conduct periodic assessments of the reliability and adequacy of the interconnected bulk-power system in North America.

"(i) SAVINGS PROVISIONS.—(1) The electric reliability organization shall have authority to develop and enforce compliance with standards for the reliable operation of only the bulk-power system.

"(2) This section does not provide the electric reliability organization or the Commission with the authority to order the construction of additional generation or transmission capacity or to set and enforce compliance with standards for adequacy or safety of electric facilities or services.

"(3) Nothing in this section shall be construed to preempt any authority of any State to take action to ensure the safety, adequacy, and reliability of electric service within that State, as long as such action is not inconsistent with any reliability standard.

"(4) Within 90 days of the application of the electric reliability organization or other affected party, and after

notice and opportunity for comment, the Commission shall issue a final order determining whether a State action is inconsistent with a reliability standard, taking into consideration any recommendation of the electric reliability organization.

"(5) The Commission, after consultation with the electric reliability organization, may stay the effectiveness of any State action, pending the Commission's issuance of a final order.

"(j) APPLICATION OF ANTITRUST LAWS.—

"(1) IN GENERAL.—To the extent undertaken to develop, implement, or enforce a reliability standard, each of the following activities shall not, in any action under the antitrust laws, be deemed illegal per se—

"(A) activities undertaken by an electric reliability organization under this section, and

"(B) activities of a user or owner or operator of the bulk-power system undertaken in good faith under the rules of an electric reliability organization.

"(2) RULE OF REASON.—In any action under the antitrust laws, an activity described in paragraph (1) shall be judged on the basis of its reasonableness,

taking into account all relevant factors affecting competition and reliability.

"(3) DEFINITION.—For purposes of this subsection, 'antitrust laws' has the meaning given the term in subsection (a) of the first section of the Clayton Act (15 U.S.C. 12(a)), except that it includes section 5 of the Federal Trade Commission Act (15 U.S.C. 45) to the extent that section 5 applies to unfair methods of competition.

"(k) REGIONAL ADVISORY BODIES.—The Commission shall establish a regional advisory body on the petition of at least two-thirds of the States within a region that have more than one-half of their electric load served within the region. A regional advisory body shall be composed of one member from each participating State in the region, appointed by the Governor of each State, and may include representatives of agencies, States, and provinces outside the United States. A regional advisory body may provide advice to the electric reliability organization, a regional reliability entity, or the Commission regarding the governance of an existing or proposed regional reliability entity within the same region, whether a standard proposed to apply within the region is just, reasonable, not unduly discriminatory or preferential, and in the public interest, whether fees proposed to be assessed within the region are just, rea-

sonable, not unduly discriminatory or preferential, and in the public interest and any other responsibilities requested by the Commission. The Commission may give deference to the advice of any such regional advisory body if that body is organized on an interconnection-wide basis.

"(l) APPLICATION TO ALASKA AND HAWAII.—The provisions of this section do not apply to Alaska or Hawaii.".

SEC. 207. MARKET TRANSPARENCY RULES.

Part II of the Federal Power Act is further amended by adding at the end the following:

"SEC. 216. MARKET TRANSPARENCY RULES.

"(a) COMMISSION RULES.—Not later than 180 days after the date of enactment of this section, the Commission shall issue rules establishing an electronic information system to provide information about the availability and price of wholesale electric energy and transmission services to the Commission, State commissions, buyers and sellers of wholesale electric energy, users of transmission services, and the public on a timely basis.

"(b) INFORMATION REQUIRED.—The Commission shall require—

"(1) each regional transmission organization to provide statistical information about the available capacity and capacity constraints of transmission facilities operated by the organization; and

"(2) each broker, exchange, or other market-making entity that matches offers to sell and offers to buy wholesale electric energy in interstate commerce to provide statistical information about the amount and sale price of sales of electric energy at wholesale in interstate commerce it transacts.

"(c) TIMELY BASIS.—The Commission shall require the information required under subsection (b) to be posted on the Internet as soon as practicable and updated as frequently as practicable.

"(d) PROTECTION OF SENSITIVE INFORMATION.—The Commission shall exempt from disclosure commercial or financial information that the Commission, by rule or order, determines to be privileged, confidential, or otherwise sensitive.".

SEC. 208. ACCESS TO TRANSMISSION BY INTERMITTENT GENERATORS.

Part II of the Federal Power Act is further amended by adding at the end the following:

"SEC. 217. ACCESS TO TRANSMISSION BY INTERMITTENT GENERATORS.

"(a) FAIR TREATMENT OF INTERMITTENT GENERATORS.—The Commission shall ensure that all transmitting utilities provide transmission service to intermittent gen-

erators in a manner that does not unduly prejudice or disadvantage such generators for characteristics that are—

"(1) inherent to intermittent energy resources; and

"(2) are beyond the control of such generators.

"(b) POLICIES.—The Commission shall ensure that the requirement in subsection (a) is met by adopting such policies as it deems appropriate which shall include the following:

"(1) Subject to the sole exception set forth in paragraph (2), the Commission shall ensure that the rates transmitting utilities charge intermittent generator customers for transmission services do not unduly prejudice or disadvantage intermittent generator customers for scheduling deviations.

"(2) The Commission may exempt a transmitting utility from the requirement set forth in paragraph (1) if the transmitting utility demonstrates that scheduling deviations by its intermittent generator customers are likely to have an adverse impact on the reliability of the transmitting utility's system.

"(3) The Commission shall ensure that to the extent any transmission charges recovering the transmitting utility's embedded costs are assessed to such intermittent generators, they are assessed to such gen-

erators on the basis of kilowatt-hours generated or some other method to ensure that they are fully recovered by the transmitting utility.

"(4) The Commission shall require transmitting utilities to offer to intermittent generators, and may require transmitting utilities to offer to all transmission customers, access to nonfirm transmission service.

"(c) DEFINITIONS.—As used in this section:

"(1) The term 'intermittent generator' means a facility that generates electricity using wind or solar energy and no other energy source.

"(2) The term 'nonfirm transmission service' means transmission service provided on an 'as available' basis.

"(3) The term 'scheduling deviation' means delivery of more or less energy than has previously been forecast in a schedule submitted by an intermittent generator to a control area operator or transmitting utility.".

SEC. 209. ENFORCEMENT.

(a) COMPLAINTS.—Section 306 of the Federal Power Act (16 U.S.C. 825e) is amended by—

(1) inserting "electric utility," after "Any person,"; and

(2) inserting "transmitting utility," after "licensee" each place it appears.

(b) INVESTIGATIONS.—Section 307(a) of the Federal Power Act (16 U.S.C. 825f(a)) is amended by inserting "or transmitting utility" after "any person" in the first sentence.

(c) REVIEW OF COMMISSION ORDERS.—Section 313(a) of the Federal Power Act (16 U.S.C. 8251) is amended by inserting "electric utility," after "Any person," in the first sentence.

(d) CRIMINAL PENALTIES.—Section 316(c) of the Federal Power Act (16 U.S.C. 825o(c)) is repealed.

(e) CIVIL PENALTIES.—Section 316A of the Federal Power Act (16 U.S.C. 825o–1) is amended by striking "section 211, 212, 213, or 214" each place it appears and inserting "Part II".

SEC. 210. ELECTRIC POWER TRANSMISSION SYSTEMS.

The Federal Government should be attentive to electric power transmission issues, including issues that can be addressed through policies that facilitate investment in, the enhancement of, and the efficiency of electric power transmission systems.

Subtitle B—Amendments to the Public Utility Holding Company Act

SEC. 221. SHORT TITLE.

This subtitle may be cited as the "Public Utility Holding Company Act of 2002".

SEC. 222. DEFINITIONS.

For purposes of this subtitle:

(1) The term "affiliate" of a company means any company, 5 percent or more of the outstanding voting securities of which are owned, controlled, or held with power to vote, directly or indirectly, by such company.

(2) The term "associate company" of a company means any company in the same holding company system with such company.

(3) The term "Commission" means the Federal Energy Regulatory Commission.

(4) The term "company" means a corporation, partnership, association, joint stock company, business trust, or any organized group of persons, whether incorporated or not, or a receiver, trustee, or other liquidating agent of any of the foregoing.

(5) The term "electric utility company" means any company that owns or operates facilities used for

the generation, transmission, or distribution of electric energy for sale.

(6) The terms "exempt wholesale generator" and "foreign utility company" have the same meanings as in sections 32 and 33, respectively, of the Public Utility Holding Company Act of 1935 (15 U.S.C. 79z–5a, 79z–5b), as those sections existed on the day before the effective date of this subtitle.

(7) The term "gas utility company" means any company that owns or operates facilities used for distribution at retail (other than the distribution only in enclosed portable containers or distribution to tenants or employees of the company operating such facilities for their own use and not for resale) of natural or manufactured gas for heat, light, or power.

(8) The term "holding company" means—

(A) any company that directly or indirectly owns, controls, or holds, with power to vote, 10 percent or more of the outstanding voting securities of a public utility company or of a holding company of any public utility company; and

(B) any person, determined by the Commission, after notice and opportunity for hearing, to exercise directly or indirectly (either alone or pursuant to an arrangement or understanding

with one or more persons) such a controlling influence over the management or policies of any public utility company or holding company as to make it necessary or appropriate for the rate protection of utility customers with respect to rates that such person be subject to the obligations, duties, and liabilities imposed by this subtitle upon holding companies.

(9) The term "holding company system" means a holding company, together with its subsidiary companies.

(10) The term "jurisdictional rates" means rates established by the Commission for the transmission of electric energy in interstate commerce, the sale of electric energy at wholesale in interstate commerce, the transportation of natural gas in interstate commerce, and the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use.

(11) The term "natural gas company" means a person engaged in the transportation of natural gas in interstate commerce or the sale of such gas in interstate commerce for resale.

(12) The term "person" means an individual or company.

(13) The term "public utility" means any person who owns or operates facilities used for transmission of electric energy in interstate commerce or sales of electric energy at wholesale in interstate commerce.

(14) The term "public utility company" means an electric utility company or a gas utility company.

(15) The term "State commission" means any commission, board, agency, or officer, by whatever name designated, of a State, municipality, or other political subdivision of a State that, under the laws of such State, has jurisdiction to regulate public utility companies.

(16) The term "subsidiary company" of a holding company means—

(A) any company, 10 percent or more of the outstanding voting securities of which are directly or indirectly owned, controlled, or held with power to vote, by such holding company; and

(B) any person, the management or policies of which the Commission, after notice and opportunity for hearing, determines to be subject to a controlling influence, directly or indirectly, by such holding company (either alone or pursuant to an arrangement or understanding with one or

more other persons) so as to make it necessary for the rate protection of utility customers with respect to rates that such person be subject to the obligations, duties, and liabilities imposed by this subtitle upon subsidiary companies of holding companies.

(17) The term "voting security" means any security presently entitling the owner or holder thereof to vote in the direction or management of the affairs of a company.

SEC. 223. REPEAL OF THE PUBLIC UTILITY HOLDING COMPANY ACT OF 1935.

The Public Utility Holding Company Act of 1935 (15 U.S.C. 79 et seq.) is repealed.

SEC. 224. FEDERAL ACCESS TO BOOKS AND RECORDS.

(a) IN GENERAL.—Each holding company and each associate company thereof shall maintain, and shall make available to the Commission, such books, accounts, memoranda, and other records as the Commission deems to be relevant to costs incurred by a public utility or natural gas company that is an associate company of such holding company and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(b) AFFILIATE COMPANIES.—Each affiliate of a holding company or of any subsidiary company of a holding

company shall maintain, and shall make available to the Commission, such books, accounts, memoranda, and other records with respect to any transaction with another affiliate, as the Commission deems to be relevant to costs incurred by a public utility or natural gas company that is an associate company of such holding company and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(c) HOLDING COMPANY SYSTEMS.—The Commission may examine the books, accounts, memoranda, and other records of any company in a holding company system, or any affiliate thereof, as the Commission deems to be relevant to costs incurred by a public utility or natural gas company within such holding company system and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(d) CONFIDENTIALITY.—No member, officer, or employee of the Commission shall divulge any fact or information that may come to his or her knowledge during the course of examination of books, accounts, memoranda, or other records as provided in this section, except as may be directed by the Commission or by a court of competent jurisdiction.

SEC. 225. STATE ACCESS TO BOOKS AND RECORDS.

(a) IN GENERAL.—Upon the written request of a State commission having jurisdiction to regulate a public utility company in a holding company system, the holding company or any associate company or affiliate thereof, other than such public utility company, wherever located, shall produce for inspection books, accounts, memoranda, and other records that—

(1) have been identified in reasonable detail by the State commission;

(2) the State commission deems are relevant to costs incurred by such public utility company; and

(3) are necessary for the effective discharge of the responsibilities of the State commission with respect to such proceeding.

(b) LIMITATION.—Subsection (a) does not apply to any person that is a holding company solely by reason of ownership of one or more qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.).

(c) CONFIDENTIALITY OF INFORMATION.—The production of books, accounts, memoranda, and other records under subsection (a) shall be subject to such terms and conditions as may be necessary and appropriate to safeguard against unwarranted disclosure to the public of any trade secrets or sensitive commercial information.

(d) EFFECT ON STATE LAW.—Nothing in this section shall preempt applicable State law concerning the provision of books, accounts, memoranda, and other records, or in any way limit the rights of any State to obtain books, accounts, memoranda, and other records under any other Federal law, contract, or otherwise.

(e) COURT JURISDICTION.—Any United States district court located in the State in which the State commission referred to in subsection (a) is located shall have jurisdiction to enforce compliance with this section.

SEC. 226. EXEMPTION AUTHORITY.

(a) RULEMAKING.—Not later than 90 days after the effective date of this subtitle, the Commission shall promulgate a final rule to exempt from the requirements of section 224 any person that is a holding company, solely with respect to one or more—

(1) qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.);

(2) exempt wholesale generators; or

(3) foreign utility companies.

(b) OTHER AUTHORITY.—The Commission shall exempt a person or transaction from the requirements of section 224, if, upon application or upon the motion of the Commission—

(1) the Commission finds that the books, accounts, memoranda, and other records of any person are not relevant to the jurisdictional rates of a public utility or natural gas company; or

(2) the Commission finds that any class of transactions is not relevant to the jurisdictional rates of a public utility or natural gas company.

SEC. 227. AFFILIATE TRANSACTIONS.

(a) COMMISSION AUTHORITY UNAFFECTED.—Nothing in this subtitle shall limit the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) to require that jurisdictional rates are just and reasonable, including the ability to deny or approve the pass through of costs, the prevention of cross-subsidization, and the promulgation of such rules and regulations as are necessary or appropriate for the protection of utility consumers.

(b) RECOVERY OF COSTS.—Nothing in this subtitle shall preclude the Commission or a State commission from exercising its jurisdiction under otherwise applicable law to determine whether a public utility company, public utility, or natural gas company may recover in rates any costs of an activity performed by an associate company, or any costs of goods or services acquired by such public utility company from an associate company.

SEC. 228. APPLICABILITY.

Except as otherwise specifically provided in this subtitle, no provision of this subtitle shall apply to, or be deemed to include—

(1) the United States;

(2) a State or any political subdivision of a State;

(3) any foreign governmental authority not operating in the United States;

(4) any agency, authority, or instrumentality of any entity referred to in paragraph (1), (2), or (3); or

(5) any officer, agent, or employee of any entity referred to in paragraph (1), (2), or (3) acting as such in the course of his or her official duty.

SEC. 229. EFFECT ON OTHER REGULATIONS.

Nothing in this subtitle precludes the Commission or a State commission from exercising its jurisdiction under otherwise applicable law to protect utility customers.

SEC. 230. ENFORCEMENT.

The Commission shall have the same powers as set forth in sections 306 through 317 of the Federal Power Act (16 U.S.C. 825e–825p) to enforce the provisions of this subtitle.

SEC. 231. SAVINGS PROVISIONS.

(a) IN GENERAL.—Nothing in this subtitle prohibits a person from engaging in or continuing to engage in activities or transactions in which it is legally engaged or authorized to engage on the effective date of this subtitle.

(b) EFFECT ON OTHER COMMISSION AUTHORITY.—Nothing in this subtitle limits the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) (including section 301 of that Act) or the Natural Gas Act (15 U.S.C. 717 et seq.) (including section 8 of that Act).

SEC. 232. IMPLEMENTATION.

Not later than 18 months after the date of enactment of this subtitle, the Commission shall—

(1) promulgate such regulations as may be necessary or appropriate to implement this subtitle (other than section 225); and

(2) submit to the Congress detailed recommendations on technical and conforming amendments to Federal law necessary to carry out this subtitle and the amendments made by this subtitle.

SEC. 233. TRANSFER OF RESOURCES.

All books and records that relate primarily to the functions transferred to the Commission under this subtitle shall be transferred from the Securities and Exchange Commission to the Commission.

SEC. 234. INTER-AGENCY REVIEW OF COMPETITION IN THE WHOLESALE AND RETAIL MARKETS FOR ELECTRIC ENERGY.

(a) TASK FORCE.—There is established an inter-agency task force, to be known as the "Electric Energy Market Competition Task Force" (referred to in this section as the "task force"), which shall consist of—

(1) one member each from—

(A) the Department of Justice, to be appointed by the Attorney General of the United States;

(B) the Federal Energy Regulatory Commission, to be appointed by the chairman of that Commission; and

(C) the Federal Trade Commission, to be appointed by the chairman of that Commission; and

(2) two advisory members (who shall not vote), of whom—

(A) one shall be appointed by the Secretary of Agriculture to represent the Rural Utility Service; and

(B) one shall be appointed by the Chairman of the Securities and Exchange Commission to represent that Commission.

(b) STUDY AND REPORT.—

(1) STUDY.—The task force shall perform a study and analysis of the protection and promotion of competition within the wholesale and retail market for electric energy in the United States.

(2) REPORT.—

(A) FINAL REPORT.—Not later than 1 year after the effective date of this subtitle, the task force shall submit a final report of its findings under paragraph (1) to the Congress.

(B) PUBLIC COMMENT.—At least 60 days before submission of a final report to the Congress under subparagraph (A), the task force shall publish a draft report in the Federal Register to provide for public comment.

(c) FOCUS.—The study required by this section shall examine—

(1) the best means of protecting competition within the wholesale and retail electric market;

(2) activities within the wholesale and retail electric market that may allow unfair and unjustified discriminatory and deceptive practices;

(3) activities within the wholesale and retail electric market, including mergers and acquisitions, that deny market access or suppress competition;

(4) cross-subsidization that may occur between regulated and nonregulated activities; and

(5) the role of State public utility commissions in regulating competition in the wholesale and retail electric market.

(d) CONSULTATION.—In performing the study required by this section, the task force shall consult with and solicit comments from its advisory members, the States, representatives of the electric power industry, and the public.

SEC. 235. GAO STUDY ON IMPLEMENTATION.

(a) STUDY.—The Comptroller General shall conduct a study of the success of the Federal Government and the States during the 18-month period following the effective date of this subtitle in—

(1) the prevention of anticompetitive practices and other abuses by public utility holding companies, including cross-subsidization and other market power abuses; and

(2) the promotion of competition and efficient energy markets to the benefit of consumers.

(b) REPORT TO CONGRESS.—Not earlier than 18 months after the effective date of this subtitle or later than 24 months after that effective date, the Comptroller General shall submit a report to the Congress on the results of the study conducted under subsection (a), including probable

causes of its findings and recommendations to the Congress and the States for any necessary legislative changes.

SEC. 236. EFFECTIVE DATE.

This subtitle shall take effect 18 months after the date of enactment of this subtitle.

SEC. 237. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such funds as may be necessary to carry out this subtitle.

SEC. 238. CONFORMING AMENDMENTS TO THE FEDERAL POWER ACT.

(a) CONFLICT OF JURISDICTION.—Section 318 of the Federal Power Act (16 U.S.C. 825q) is repealed.

(b) DEFINITIONS.—(1) Section 201(g) of the Federal Power Act (16 U.S.C. 824(g)) is amended by striking "1935" and inserting "2002".

(2) Section 214 of the Federal Power Act (16 U.S.C. 824m) is amended by striking "1935" and inserting "2002".

Subtitle C—Amendments to the Public Utility Regulatory Policies Act of 1978

SEC. 241. REAL-TIME PRICING AND TIME-OF-USE METERING STANDARDS.

(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

"(11) REAL-TIME PRICING.—(A) Each electric utility shall, at the request of an electric consumer, provide electric service under a real-time rate schedule, under which the rate charged by the electric utility varies by the hour (or smaller time interval) according to changes in the electric utility's wholesale power cost. The real-time pricing service shall enable the electric consumer to manage energy use and cost through real-time metering and communications technology.

"(B) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.

"(C) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall con-

sider and make a determination concerning whether it is appropriate to implement the standard set out in subparagraph (A) not later than 1 year after the date of enactment of this paragraph.

"(12) TIME-OF-USE METERING.—(A) Each electric utility shall, at the request of an electric consumer, provide electric service under a time-of-use rate schedule which enables the electric consumer to manage energy use and cost through time-of-use metering and technology.

"(B) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.

"(C) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall consider and make a determination concerning whether it is appropriate to implement the standards set out in subparagraph (A) not later than 1 year after the date of enactment of this paragraph.".

(b) SPECIAL RULES.—Section 115 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625) is amended by adding at the end the following:

"(i) REAL-TIME PRICING.—In a State that permits third-party marketers to sell electric energy to retail electric consumers, the electric consumer shall be entitled to receive the same real-time metering and communication service as a direct retail electric consumer of the electric utility.

"(j) TIME-OF-USE METERING.—In a State that permits third-party marketers to sell electric energy to retail electric consumers, the electric consumer shall be entitled to receive the same time-of-use metering and communication service as a direct retail electric consumer of the electric utility.".

SEC. 242. ADOPTION OF ADDITIONAL STANDARDS.

(a) ADOPTION OF STANDARDS.—Section 113(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2623(b)) is amended by adding at the end the following:

"(6) DISTRIBUTED GENERATION.—Each electric utility shall provide distributed generation, combined heat and power, and district heating and cooling systems competitive access to the local distribution grid and competitive pricing of service, and shall use simplified standard contracts for the interconnection of generating facilities that have a power production capacity of 250 kilowatts or less.

"(7) DISTRIBUTION INTERCONNECTIONS.—No electric utility may refuse to interconnect a gener-

ating facility with the distribution facilities of the electric utility if the owner or operator of the generating facility complies with technical standards adopted by the State regulatory authority and agrees to pay the costs established by such State regulatory authority.

"(8) MINIMUM FUEL AND TECHNOLOGY DIVERSITY STANDARD.—Each electric utility shall develop a plan to minimize dependence on one fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.

"(9) FOSSIL FUEL EFFICIENCY.—Each electric utility shall develop and implement a ten-year plan to increase the efficiency of its fossil fuel generation and shall monitor and report to its State regulatory authority excessive greenhouse gas emissions resulting from the inefficient operation of its fossil fuel generating plants.".

(b) TIME FOR ADOPTING STANDARDS.—Section 113 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2623) is further amended by adding at the end the following:

"(d) SPECIAL RULE.—For purposes of implementing paragraphs (6), (7), (8), and (9) of subsection (b), any ref-

erence contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this subsection.".

SEC. 243. TECHNICAL ASSISTANCE.

Section 132(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2642(c)) is amended to read as follows:

"(c) TECHNICAL ASSISTANCE FOR CERTAIN RESPONSIBILITIES.—The Secretary may provide such technical assistance as he determines appropriate to assist State regulatory authorities and electric utilities in carrying out their responsibilities under section 111(d)(11) and paragraphs (6), (7), (8), and (9) of section 113(b).".

SEC. 244. COGENERATION AND SMALL POWER PRODUCTION PURCHASE AND SALE REQUIREMENTS.

(a) TERMINATION OF MANDATORY PURCHASE AND SALE REQUIREMENTS.—Section 210 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 824a–3) is amended by adding at the end the following:

"(m) TERMINATION OF MANDATORY PURCHASE AND SALE REQUIREMENTS.—

"(1) OBLIGATION TO PURCHASE.— After the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obli-

gation to purchase electric energy from a qualifying cogeneration facility or a qualifying small power production facility under this section if the Commission finds that the qualifying cogeneration facility or qualifying small power production facility has access to independently administered, auction-based day ahead and real time wholesale markets for the sale of electric energy.

"(2) OBLIGATION TO SELL.—After the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obligation to sell electric energy to a qualifying cogeneration facility or a qualifying small power production facility under this section if competing retail electric suppliers are able to provide electric energy to the qualifying cogeneration facility or qualifying small power production facility.

"(3) NO EFFECT ON EXISTING RIGHTS AND REMEDIES.—Nothing in this subsection affects the rights or remedies of any party under any contract or obligation, in effect on the date of enactment of this subsection, to purchase electric energy or capacity from or to sell electric energy or capacity to a facility under this Act (including the right to recover costs of purchasing electric energy or capacity).

"(4) RECOVERY OF COSTS.—

"(A) REGULATION.—To ensure recovery by an electric utility that purchases electric energy or capacity from a qualifying facility pursuant to any legally enforceable obligation entered into or imposed under this section before the date of enactment of this subsection, of all prudently incurred costs associated with the purchases, the Commission shall issue and enforce such regulations as may be required to ensure that the electric utility shall collect the prudently incurred costs associated with such purchases.

"(B) ENFORCEMENT.—A regulation under subparagraph (A) shall be enforceable in accordance with the provisions of law applicable to enforcement of regulations under the Federal Power Act (16 U.S.C. 791a et seq.).".

(b) ELIMINATION OF OWNERSHIP LIMITATIONS.—

(1) Section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)) is amended to read as follows:

"(C) 'qualifying small power production facility' means a small power production facility that the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel effi-

ciency) as the Commission may, by rule, prescribe.".

(2) Section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)) is amended to read as follows:

"(B) 'qualifying cogeneration facility' means a cogeneration facility that the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe.".

SEC. 245. NET METERING.

(a) ADOPTION OF STANDARD.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is further amended by adding at the end the following:

"(13) NET METERING.—(A) Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves.

"(B) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.

"(C) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall con-

sider and make a determination concerning whether it is appropriate to implement the standard set out in subparagraph (A) not later than 1 year after the date of enactment of this paragraph.".

(b) SPECIAL RULES FOR NET METERING.—Section 115 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625) is further amended by adding at the end the following:

"(k) NET METERING.—

"(1) RATES AND CHARGES.—An electric utility—

"(A) shall charge the owner or operator of an on-site generating facility rates and charges that are identical to those that would be charged other electric consumers of the electric utility in the same rate class; and

"(B) shall not charge the owner or operator of an on-site generating facility any additional standby, capacity, interconnection, or other rate or charge.

"(2) MEASUREMENT.—An electric utility that sells electric energy to the owner or operator of an on-site generating facility shall measure the quantity of electric energy produced by the on-site facility and the quantity of electric energy consumed by the owner or

operator of an on-site generating facility during a billing period in accordance with normal metering practices.

"(3) ELECTRIC ENERGY SUPPLIED EXCEEDING ELECTRIC ENERGY GENERATED.—If the quantity of electric energy sold by the electric utility to an on-site generating facility exceeds the quantity of electric energy supplied by the on-site generating facility to the electric utility during the billing period, the electric utility may bill the owner or operator for the net quantity of electric energy sold, in accordance with normal metering practices.

"(4) ELECTRIC ENERGY GENERATED EXCEEDING ELECTRIC ENERGY SUPPLIED.—If the quantity of electric energy supplied by the on-site generating facility to the electric utility exceeds the quantity of electric energy sold by the electric utility to the on-site generating facility during the billing period—

"(A) the electric utility may bill the owner or operator of the on-site generating facility for the appropriate charges for the billing period in accordance with paragraph (2); and

"(B) the owner or operator of the on-site generating facility shall be credited for the excess kilowatt-hours generated during the billing pe-

riod, with the kilowatt-hour credit appearing on the bill for the following billing period.

"(5) SAFETY AND PERFORMANCE STANDARDS.—An eligible on-site generating facility and net metering system used by an electric consumer shall meet all applicable safety, performance, reliability, and interconnection standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories.

"(6) ADDITIONAL CONTROL AND TESTING REQUIREMENTS.—The Commission, after consultation with State regulatory authorities and nonregulated electric utilities and after notice and opportunity for comment, may adopt, by rule, additional control and testing requirements for on-site generating facilities and net metering systems that the Commission determines are necessary to protect public safety and system reliability.

"(7) DEFINITIONS.—For purposes of this subsection:

"(A) The term 'eligible on-site generating facility' means—

"(i) a facility on the site of a residential electric consumer with a maximum generating capacity of 10 kilowatts or less that

is fueled by solar energy, wind energy, or fuel cells; or

"(ii) a facility on the site of a commercial electric consumer with a maximum generating capacity of 500 kilowatts or less that is fueled solely by a renewable energy resource, landfill gas, or a high efficiency system.

"(B) The term 'renewable energy resource' means solar, wind, biomass, or geothermal energy.

"(C) The term 'high efficiency system' means fuel cells or combined heat and power.

"(D) The term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.".

Subtitle D—Consumer Protections

SEC. 251. INFORMATION DISCLOSURE.

(a) OFFERS AND SOLICITATIONS.—The Federal Trade Commission shall issue rules requiring each electric utility

that makes an offer to sell electric energy, or solicits electric consumers to purchase electric energy to provide the electric consumer a statement containing the following information—

(1) the nature of the service being offered, including information about interruptibility of service;

(2) the price of the electric energy, including a description of any variable charges;

(3) a description of all other charges associated with the service being offered, including access charges, exit charges, back-up service charges, stranded cost recovery charges, and customer service charges; and

(4) information the Federal Trade Commission determines is technologically and economically feasible to provide, is of assistance to electric consumers in making purchasing decisions, and concerns—

(A) the product or its price;

(B) the share of electric energy that is generated by each fuel type; and

(C) the environmental emissions produced in generating the electric energy.

(b) PERIODIC BILLINGS.—The Federal Trade Commission shall issue rules requiring any electric utility that sells electric energy to transmit to each of its electric consumers,

in addition to the information transmitted pursuant to section 115(f) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625(f)), a clear and concise statement containing the information described in subsection (a)(4) for each billing period (unless such information is not reasonably ascertainable by the electric utility).

SEC. 252. CONSUMER PRIVACY.

(a) PROHIBITION.—The Federal Trade Commission shall issue rules prohibiting any electric utility that obtains consumer information in connection with the sale or delivery of electric energy to an electric consumer from using, disclosing, or permitting access to such information unless the electric consumer to whom such information relates provides prior written approval.

(b) PERMITTED USE.—The rules issued under this section shall not prohibit any electric utility from using, disclosing, or permitting access to consumer information referred to in subsection (a) for any of the following purposes—

(1) to facilitate an electric consumer's change in selection of an electric utility under procedures approved by the State or State regulatory authority;

(2) to initiate, render, bill, or collect for the sale or delivery of electric energy to electric consumers or for related services;

(3) to protect the rights or property of the person obtaining such information;

(4) to protect retail electric consumers from fraud, abuse, and unlawful subscription in the sale or delivery of electric energy to such consumers;

(5) for law enforcement purposes; or

(6) for purposes of compliance with any Federal, State, or local law or regulation authorizing disclosure of information to a Federal, State, or local agency.

(c) AGGREGATE CONSUMER INFORMATION.—The rules issued under this subsection may permit a person to use, disclose, and permit access to aggregate consumer information and may require an electric utility to make such information available to other electric utilities upon request and payment of a reasonable fee.

(d) DEFINITIONS.—As used in this section:

(1) The term "aggregate consumer information" means collective data that relates to a group or category of retail electric consumers, from which individual consumer identities and characteristics have been removed.

(2) The term "consumer information" means information that relates to the quantity, technical con-

figuration, type, destination, or amount of use of electric energy delivered to any retail electric consumer.

SEC. 253. OFFICE OF CONSUMER ADVOCACY.

(a) 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), as modified by section 601(a) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3431(a)).

(4) OFFICE.—The term "Office" means the Office of Consumer Advocacy established by subsection (b)(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.

(b) OFFICE.—

(1) ESTABLISHMENT.—There is established within the Department of Justice the Office of Consumer Advocacy.

(2) DIRECTOR.—The Office shall be headed by a Director to be appointed by the President, by and with the advice and consent of the Senate.

(3) DUTIES.—The Office may represent the interests of energy customers on matters concerning rates or service of public utilities and natural gas companies under the jurisdiction of the Commission—

(A) at hearings of the Commission;

(B) in judicial proceedings in the courts of the United States;

(C) at hearings or proceedings of other Federal regulatory agencies and commissions.

SEC. 254. UNFAIR TRADE PRACTICES.

(a) SLAMMING.—The Federal Trade Commission shall issue rules prohibiting the change of selection of an electric utility except with the informed consent of the electric consumer.

(b) CRAMMING.—The Federal Trade Commission shall issue rules prohibiting the sale of goods and services to an electric consumer unless expressly authorized by law or the electric consumer.

SEC. 255. APPLICABLE PROCEDURES.

The Federal Trade Commission shall proceed in accordance with section 553 of title 5, United States Code, when prescribing a rule required by this subtitle.

SEC. 256. FEDERAL TRADE COMMISSION ENFORCEMENT.

Violation of a rule issued under this subtitle shall be treated as a violation of a rule under section 18 of the Federal Trade Commission Act (15 U.S.C. 57a) respecting unfair or deceptive acts or practices. All functions and powers of the Federal Trade Commission under such Act are available to the Federal Trade Commission to enforce compliance with this subtitle notwithstanding any jurisdictional limits in such Act.

SEC. 257. STATE AUTHORITY.

Nothing in this subtitle shall be construed to preclude a State or State regulatory authority from prescribing and enforcing laws, rules, or procedures regarding the practices which are the subject of this section.

SEC. 258. APPLICATION OF SUBTITLE.

The provisions of this subtitle apply to each electric utility if the total sales of electric energy by such utility

for purposes other than resale exceed 500 million kilowatt-hours per calendar year. The provisions of this subtitle do not apply to the operations of an electric utility to the extent that such operations relate to sales of electric energy for purposes of resale.

SEC. 259. DEFINITIONS.

As used in this subtitle:

(1) The term "aggregate consumer information" means collective data that relates to a group or category of electric consumers, from which individual consumer identities and identifying characteristics have been removed.

(2) The term "consumer information" means information that relates to the quantity, technical configuration, type, destination, or amount of use of electric energy delivered to an electric consumer.

(3) The terms "electric consumer", "electric utility", and "State regulatory authority" have the meanings given such terms in section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602).

Subtitle E—Renewable Energy and Rural Construction Grants

SEC. 261. RENEWABLE ENERGY PRODUCTION INCENTIVE.

(a) INCENTIVE PAYMENTS.—Section 1212(a) of the Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is amended by striking "and which satisfies" and all that follows through "Secretary shall establish." and inserting the following: ". The Secretary shall establish other procedures necessary for efficient administration of the program. The Secretary shall not establish any criteria or procedures that have the effect of assigning to proposals a higher or lower priority for eligibility or allocation of appropriated funds on the basis of the energy source proposed.".

(b) QUALIFIED RENEWABLE ENERGY FACILITY.—Section 1212(b) of the Energy Policy Act of 1992 (42 U.S.C. 13317(b)) is amended—

(1) by striking "a State or any political" and all that follows through "nonprofit electrical cooperative" and inserting the following: "a nonprofit electrical cooperative, a public utility described in section 115 of such Code, a State, Commonwealth, territory, or possession of the United States or the District of Columbia, or a political subdivision thereof, or an Indian tribal government or subdivision thereof,"; and

(2) by inserting "landfill gas, incremental hydropower, ocean" after "wind, biomass,".

(c) ELIGIBILITY WINDOW.—Section 1212(c) of the Energy Policy Act of 1992 (42 U.S.C. 13317(c)) is amended by striking "during the 10-fiscal year period beginning with the first full fiscal year occurring after the enactment of this section" and inserting "before October 1, 2013".

(d) PAYMENT PERIOD.—Section 1212(d) of the Energy Policy Act of 1992 (42 U.S.C. 13317(d)) is amended by inserting "or in which the Secretary finds that all necessary Federal and State authorizations have been obtained to begin construction of the facility" after "eligible for such payments".

(e) AMOUNT OF PAYMENT.—Section 1212(e)(1) of the Energy Policy Act of 1992 (42 U.S.C. 13317(e)(1)) is amended by inserting "landfill gas, incremental hydropower, ocean" after "wind, biomass,".

(f) SUNSET.—Section 1212(f) of the Energy Policy Act of 1992 (42 U.S.C. 13317(f)) is amended by striking "the expiration of" and all that follows through "of this section" and inserting "September 30, 2023".

(g) INCREMENTAL HYDROPOWER; AUTHORIZATION OF APPROPRIATIONS.—Section 1212 of the Energy Policy Act of 1992 (42 U.S.C. 13317) is further amended by striking subsection (g) and inserting the following:

"(g) INCREMENTAL HYDROPOWER.—

"(1) PROGRAMS.—Subject to subsection (h)(2), if an incremental hydropower program meets the requirements of this section, as determined by the Secretary, the incremental hydropower program shall be eligible to receive incentive payments under this section.

"(2) DEFINITION OF INCREMENTAL HYDROPOWER.—In this subsection, the term 'incremental hydropower' means additional generating capacity achieved from increased efficiency or additions of new capacity at a hydroelectric facility in existence on the date of enactment of this paragraph.

"(h) AUTHORIZATION OF APPROPRIATIONS.—

"(1) IN GENERAL.—Subject to paragraph (2), there are authorized to be appropriated such sums as may be necessary to carry out this section for fiscal years 2003 through 2023.

"(2) LIMITATION ON FUNDS USED FOR INCREMENTAL HYDROPOWER PROGRAMS.—Not more than 30 percent of the amounts made available under paragraph (1) shall be used to carry out programs described in subsection (g)(2).

"(3) AVAILABILITY OF FUNDS.—Funds made available under paragraph (1) shall remain available until expended.".

SEC. 262. ASSESSMENT OF RENEWABLE ENERGY RESOURCES.

(a) RESOURCE ASSESSMENT.—Not later than 3 months after the date of enactment of this title, and each year thereafter, the Secretary of Energy shall review the available assessments of renewable energy resources available within the United States, including solar, wind, biomass, ocean, geothermal, and hydroelectric energy resources, and undertake new assessments as necessary, taking into account changes in market conditions, available technologies and other relevant factors.

(b) CONTENTS OF REPORTS.—Not later than 1 year after the date of enactment of this title, and each year thereafter, the Secretary shall publish a report based on the assessment under subsection (a). The report shall contain—

(1) a detailed inventory describing the available amount and characteristics of the renewable energy resources, and

(2) such other information as the Secretary of Energy believes would be useful in developing such renewable energy resources, including descriptions of surrounding terrain, population and load centers,

nearby energy infrastructure, location of energy and water resources, and available estimates of the costs needed to develop each resource, together with an identification of any barriers to providing adequate transmission for remote sources of renewable energy resources to current and emerging markets, recommendations for removing or addressing such barriers, and ways to provide access to the grid that do not unfairly disadvantage renewable or other energy producers.

SEC. 263. FEDERAL PURCHASE REQUIREMENT.

(a) REQUIREMENT.—The President shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of electric energy the Federal Government consumes during any fiscal year—

(1) not less than 3 percent in fiscal years 2003 through 2004,

(2) not less than 5 percent in fiscal years 2005 through 2009, and

(3) not less than 7.5 percent in fiscal year 2010 and each fiscal year thereafter,

shall be renewable energy. The President shall encourage the use of innovative purchasing practices by Federal agencies.

(b) DEFINITION.—For purposes of this section, the term "renewable energy" means electric energy generated

from solar, wind, biomass, geothermal, fuel cells, municipal solid waste, or additional hydroelectric generation capacity achieved from increased efficiency or additions of new capacity.

(c) TRIBAL POWER GENERATION.—The President shall seek to ensure that, to the extent economically feasible and technically practicable, not less than one-tenth of the amount specified in subsection (a) shall be renewable energy that is generated by an Indian tribe or by a corporation, partnership, or business association which is wholly or majority owned, directly or indirectly, by an Indian tribe. For purposes of this subsection, the term "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(d) BIENNIAL REPORT.—In 2004 and every 2 years thereafter, the Secretary of Energy shall report to the Committee on Energy and Natural Resources of the Senate and the appropriate committees of the House of Representatives on the progress of the Federal Government in meeting the goals established by this section.

SEC. 264. RENEWABLE PORTFOLIO STANDARD.

Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

"SEC. 606. FEDERAL RENEWABLE PORTFOLIO STANDARD.

"(a) MINIMUM RENEWABLE GENERATION REQUIREMENT.—For each calendar year beginning in calendar year 2005, each retail electric supplier shall submit to the Secretary, not later than April 1 of the following calendar year, renewable energy credits in an amount equal to the required annual percentage specified in subsection (b).

"(b) REQUIRED ANNUAL PERCENTAGE.—(1) For calendar years 2005 through 2020, the required annual percentage of the retail electric supplier's base amount that shall be generated from renewable energy resources shall be the percentage specified in the following table:

"Calendar Years	***Required annual percentage***
2005 through 2006	*1.0*
2007 through 2008	*2.2*
2009 through 2010	*3.4*
2011 through 2012	*4.6*
2013 through 2014	*5.8*
2015 through 2016	*7.0*
2017 through 2018	*8.5*
2019 through 2020	*10.0.*

"(2) Not later than January 1, 2015, the Secretary may, by rule, establish required annual percentages in amounts not less than 10.0 for calendar years 2020 through 2030.

"(c) SUBMISSION OF CREDITS.—(1) A retail electric supplier may satisfy the requirements of subsection (a) through the submission of renewable energy credits—

"(A) issued to the retail electric supplier under subsection (d);

"(B) obtained by purchase or exchange under subsection (e); or

"(C) borrowed under subsection (f).

"(2) A credit may be counted toward compliance with subsection (a) only once.

"(d) ISSUANCE OF CREDITS.—(1) The Secretary shall establish, not later than 1 year after the date of enactment of this section, a program to issue, monitor the sale or exchange of, and track renewable energy credits.

"(2) Under the program, an entity that generates electric energy through the use of a renewable energy resource may apply to the Secretary for the issuance of renewable energy credits. The application shall indicate—

"(A) the type of renewable energy resource used to produce the electricity,

"(B) the location where the electric energy was produced, and

"(C) any other information the Secretary determines appropriate.

"(3)(A) Except as provided in paragraphs (B), (C), and (D), the Secretary shall issue to an entity one renewable energy credit for each kilowatt-hour of electric energy the entity generates from the date of enactment of this section and in each subsequent calendar year through the use of a renewable energy resource at an eligible facility.

"(B) For incremental hydropower the credits shall be calculated based on the expected increase in average annual generation resulting from the efficiency improvements or capacity additions. The number of credits shall be calculated using the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility and certified by the Secretary or the Federal Energy Regulatory Commission. The calculation of the credits for incremental hydropower shall not be based on any operational changes at the hydroelectric facility not directly associated with the efficiency improvements or capacity additions.

"(C) The Secretary shall issue two renewable energy credits for each kilowatt-hour of electric energy generated and supplied to the grid in that calendar year through the use of a renewable energy resource at an eligible facility located on Indian land. For purposes of this paragraph, renewable energy generated by biomass cofired with other

fuels is eligible for two credits only if the biomass was grown on the land eligible under this paragraph.

"(D) For renewable energy resources produced from a generation offset, the Secretary shall issue two renewable energy credits for each kilowatt-hour generated.

"(E) To be eligible for a renewable energy credit, the unit of electric energy generated through the use of a renewable energy resource may be sold or may be used by the generator. If both a renewable energy resource and a nonrenewable energy resource are used to generate the electric energy, the Secretary shall issue credits based on the proportion of the renewable energy resource used. The Secretary shall identify renewable energy credits by type and date of generation.

"(5) When a generator sells electric energy generated through the use of a renewable energy resource to a retail electric supplier under a contract subject to section 210 of this Act, the retail electric supplier is treated as the generator of the electric energy for the purposes of this section for the duration of the contract.

"(6) The Secretary may issue credits for existing facility offsets to be applied against a retail electric supplier's own required annual percentage. The credits are not tradeable and may only be used in the calendar year generation actually occurs.

"(e) CREDIT TRADING.—A renewable energy credit may be sold or exchanged by the entity to whom issued or by any other entity who acquires the credit. A renewable energy credit for any year that is not used to satisfy the minimum renewable generation requirement of subsection (a) for that year may be carried forward for use within the next 4 years.

"(f) CREDIT BORROWING.—At any time before the end of calendar year 2005, a retail electric supplier that has reason to believe it will not have sufficient renewable energy credits to comply with subsection (a) may—

"(1) submit a plan to the Secretary demonstrating that the retail electric supplier will earn sufficient credits within the next 3 calendar years which, when taken into account, will enable the retail electric supplier's to meet the requirements of subsection (a) for calendar year 2005 and the subsequent calendar years involved; and

"(2) upon the approval of the plan by the Secretary, apply credits that the plan demonstrates will be earned within the next 3 calendar years to meet the requirements of subsection (a) for each calendar year involved.

"(g) CREDIT COST CAP.—The Secretary shall offer renewable energy credits for sale at the lesser of 3 cents per

kilowatt-hour or 200 percent of the average market value of credits for the applicable compliance period. On January 1 of each year following calendar year 2005, the Secretary shall adjust for inflation the price charged per credit for such calendar year, based on the Gross Domestic Product Implicit Price Deflator.

"(h) ENFORCEMENT.—The Secretary may bring an action in the appropriate United States district court to impose a civil penalty on a retail electric supplier that does not comply with subsection (a), unless the retail electric supplier was unable to comply with subsection (a) for reasons outside of the supplier's reasonable control (including weather-related damage, mechanical failure, lack of transmission capacity or availability, strikes, lockouts, actions of a governmental authority). A retail electric supplier who does not submit the required number of renewable energy credits under subsection (a) shall be subject to a civil penalty of not more than the greater of 3 cents or 200 percent of the average market value of credits for the compliance period for each renewable energy credit not submitted.

"(i) INFORMATION COLLECTION.—The Secretary may collect the information necessary to verify and audit—

"(1) the annual electric energy generation and renewable energy generation of any entity applying for renewable energy credits under this section,

"(2) the validity of renewable energy credits submitted by a retail electric supplier to the Secretary, and

"(3) the quantity of electricity sales of all retail electric suppliers.

"(j) ENVIRONMENTAL SAVINGS CLAUSE.—Incremental hydropower shall be subject to all applicable environmental laws and licensing and regulatory requirements.

"(k) STATE SAVINGS CLAUSE.—This section does not preclude a State from requiring additional renewable energy generation in that State, or from specifying technology mix.

"(l) DEFINITIONS.—For purposes of this section:

"(1) BIOMASS.—The term 'biomass' means any organic material that is available on a renewable or recurring basis, including dedicated energy crops, trees grown for energy production, wood waste and wood residues, plants (including aquatic plants, grasses, and agricultural crops), residues, fibers, animal wastes and other organic waste materials, and fats and oils, except that with respect to material removed from National Forest System lands the term includes only organic material from—

"(A) thinnings from trees that are less than 12 inches in diameter;

"(B) slash;

"(C) brush; and

"(D) mill residues.

"(2) ELIGIBLE FACILITY.—The term 'eligible facility' means—

"(A) a facility for the generation of electric energy from a renewable energy resource that is placed in service on or after the date of enactment of this section; or

"(B) a repowering or cofiring increment that is placed in service on or after the date of enactment of this section at a facility for the generation of electric energy from a renewable energy resource that was placed in service before that date.

"(3) ELIGIBLE RENEWABLE ENERGY RESOURCE.—The term 'renewable energy resource' means solar, wind, ocean, or geothermal energy, biomass (excluding solid waste and paper that is commonly recycled), landfill gas, a generation offset, or incremental hydropower.

"(4) GENERATION OFFSET.—The term 'generation offset' means reduced electricity usage metered at a site where a customer consumes energy from a renewable energy technology.

"(5) EXISTING FACILITY OFFSET.—The term 'existing facility offset' means renewable energy generated from an existing facility, not classified as an eligible facility, that is owned or under contract to a retail electric supplier on the date of enactment of this section.

"(6) INCREMENTAL HYDROPOWER.—The term 'incremental hydropower' means additional generation that is achieved from increased efficiency or additions of capacity after the date of enactment of this section at a hydroelectric dam that was placed in service before that date.

"(7) INDIAN LAND.—The term 'Indian land' means—

"(A) any land within the limits of any Indian reservation, pueblo, or rancheria,

"(B) any land not within the limits of any Indian reservation, pueblo, or rancheria title to which was on the date of enactment of this paragraph either held by the United States for the benefit of any Indian tribe or individual or held by any Indian tribe or individual subject to restriction by the United States against alienation,

"(C) any dependent Indian community, and

"(D) any land conveyed to any Alaska Native corporation under the Alaska Native Claims Settlement Act.

"(8) INDIAN TRIBE.—The term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

"(9) RENEWABLE ENERGY.—The term 'renewable energy' means electric energy generated by a renewable energy resource.

"(10) RENEWABLE ENERGY RESOURCE.—The term 'renewable energy resource' means solar, wind, ocean, or geothermal energy, biomass (including municipal solid waste), landfill gas, a generation offset, or incremental hydropower.

"(11) REPOWERING OR COFIRING INCREMENT.—The term 'repowering or cofiring increment' means the additional generation from a modification that is placed in service on or after the date of enactment of this section to expand electricity production at a fa-

cility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before the date of enactment of this section, or the additional generation above the average generation in the 3 years preceding the date of enactment of this section, to expand electricity production at a facility used to generate electric energy from a renewable energy resource or to cofire biomass that was placed in service before the date of enactment of this section.

"(12) RETAIL ELECTRIC SUPPLIER.—The term 'retail electric supplier' means a person that sells electric energy to electric consumers and sold not less than 1,000,000 megawatt-hours of electric energy to electric consumers for purposes other than resale during the preceding calendar year; except that such term does not include the United States, a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing, or a rural electric cooperative.

"(13) RETAIL ELECTRIC SUPPLIER'S BASE AMOUNT.—The term 'retail electric supplier's base amount' means the total amount of electric energy sold by the retail electric supplier to electric customers during the most recent calendar year for which infor-

mation is available, excluding electric energy generated by—

"(A) an eligible renewable energy resource;

"(B) municipal solid waste; or

"(C) a hydroelectric facility.

"(m) SUNSET.—This section expires December 31, 2030.".

SEC. 265. RENEWABLE ENERGY ON FEDERAL LAND.

(a) COST-SHARE DEMONSTRATION PROGRAM.—Within 12 months after the date of enactment of this section, the Secretaries of the Interior, Agriculture, and Energy shall develop guidelines for a cost-share demonstration program for the development of wind and solar energy facilities on Federal land.

(b) DEFINITION OF FEDERAL LAND.—As used in this section, the term "Federal land" means land owned by the United States that is subject to the operation of the mineral leasing laws; and is either—

(1) public land as defined in section 103(e) of the Federal Land Policy and Management Act of 1976 (42 U.S.C. 1702(e)); or

(2) a unit of the National Forest System as that term is used in section 11(a) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1609(a)).

(c) RIGHTS-OF-WAY.—The demonstration program shall provide for the issuance of rights-of-way pursuant to the provisions of title V of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1761 et seq.) by the Secretary of the Interior with respect to Federal land under the jurisdiction of the Department of the Interior, and by the Secretary of Agriculture with respect to Federal lands under the jurisdiction of the Department of Agriculture.

(d) AVAILABLE SITES.—For purposes of this demonstration program, the issuance of rights-of-way shall be limited to areas—

(1) of high energy potential for wind or solar development;

(2) that have been identified by the wind or solar energy industry, through a process of nomination, application, or otherwise, as being of particular interest to one or both industries;

(3) that are not located within roadless areas;

(4) where operation of wind or solar facilities would be compatible with the scenic, recreational, environmental, cultural, or historic values of the Federal land, and would not require the construction of new roads for the siting of lines or other transmission facilities; and

(5) where issuance of the right-of-way is consistent with the land and resource management plans of the relevant land management agencies.

(e) COST-SHARE PAYMENTS BY DOE.—The Secretary of Energy, in cooperation with the Secretary of the Interior with respect to Federal land under the jurisdiction of the Department of the Interior, and the Secretary of Agriculture with respect to Federal land under the jurisdiction of the Department of Agriculture, shall determine if the portion of a project on Federal land is eligible for financial assistance pursuant to this section. Only those projects that are consistent with the requirements of this section and further the purposes of this section shall be eligible. In the event a project is selected for financial assistance, the Secretary of Energy shall provide no more than 15 percent of the costs of the project on the Federal land, and the remainder of the costs shall be paid by non-Federal sources.

(f) REVISION OF LAND USE PLANS.—The Secretary of the Interior shall consider development of wind and solar energy, as appropriate, in revisions of land use plans under section 202 of the Federal Land Policy and Management Act of 1976 (42 U.S.C. 1712); and the Secretary of Agriculture shall consider development of wind and solar energy, as appropriate, in revisions of land and resource management plans under section 5 of the Forest and Range-

land Renewable Resources Planning Act of 1974 (16 U.S.C. 1604). Nothing in this subsection shall preclude the issuance of a right-of-way for the development of a wind or solar energy project prior to the revision of a land use plan by the appropriate land management agency.

(g) REPORT TO CONGRESS.—Within 24 months after the date of enactment of this section, the Secretary of the Interior shall develop and report to Congress recommendations on any statutory or regulatory changes the Secretary believes would assist in the development of renewable energy on Federal land. The report shall include—

(1) a five-year plan developed by the Secretary of the Interior, in cooperation with the Secretary of Agriculture, for encouraging the development of wind and solar energy on Federal land in an environmentally sound manner; and

(2) an analysis of—

(A) whether the use of rights-of-ways is the best means of authorizing use of Federal land for the development of wind and solar energy, or whether such resources could be better developed through a leasing system, or other method;

(B) the desirability of grants, loans, tax credits or other provisions to promote wind and solar energy development on Federal land; and

(C) any problems, including environmental concerns, which the Secretary of the Interior or the Secretary of Agriculture have encountered in managing wind or solar energy projects on Federal land, or believe are likely to arise in relation to the development of wind or solar energy on Federal land;

(3) a list, developed in consultation with the Secretaries of Energy and Defense, of lands under the jurisdiction of the Departments of Energy and Defense that would be suitable for development for wind or solar energy, and recommended statutory and regulatory mechanisms for such development.

(h) NATIONAL ACADEMY OF SCIENCES STUDY.— Within 90 days after the enactment of this Act, the Secretary of the Interior shall contract with the National Academy of Sciences to study the potential for the development of wind, solar, and ocean energy on the Outer Continental Shelf; assess existing Federal authorities for the development of such resources; and recommend statutory and regulatory mechanisms for such development. The results of the study shall be transmitted to Congress within 24 months after the enactment of this Act.

Subtitle F—General Provisions

SEC. 271. CHANGE 3 CENTS TO 1.5 CENTS.

Not withstanding any other provision in this Act, "3 cents" shall be considered by law to be "1.5 cents" in any place "3 cents" appears in title II of this Act.

SEC. 272. BONNEVILLE POWER ADMINISTRATION BONDS.

Section 13 of the Federal Columbia River Transmission System Act (16 U.S.C. 838k) is amended—

(1) by striking the section heading and all that follows through "(a) The Administrator" and inserting the following:

"SEC. 13. BONNEVILLE POWER ADMINISTRATION BONDS.

"(a) BONDS.—

"(1) IN GENERAL.—The Administrator"; and

(2) by adding at the end the following:

"(2) ADDITIONAL BORROWING AUTHORITY.—In addition to the borrowing authority of the Administrator authorized under paragraph (1) or any other provision of law, an additional $1,300,000,000 is made available, to remain outstanding at any one time—

"(A) to provide funds to assist in financing the construction, acquisition, and replacement of the transmission system of the Bonneville Power Administration; and

"(B) to implement the authorities of the Administrator under the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839 et seq.).".

TITLE III—HYDROELECTRIC RELICENSING

SEC. 301. ALTERNATIVE CONDITIONS AND FISHWAYS.

(a) ALTERNATIVE MANDATORY CONDITIONS.—Section 4 of the Federal Power Act (16 U.S.C. 797) is amended by adding at the end the following:

"(h)(1) Whenever any person applies for a license for any project works within any reservation of the United States under subsection (e), and the Secretary of the department under whose supervision such reservation falls (in this subsection referred to as the 'Secretary') shall deem a condition to such license to be necessary under the first proviso of such section, the license applicant may propose an alternative condition.

"(2) Notwithstanding the first proviso of subsection (e), the Secretary of the department under whose supervision the reservation falls shall accept the proposed alternative condition referred to in paragraph (1), and the Commission shall include in the license such alternative condition, if the Secretary of the appropriate department deter-

mines, based on substantial evidence provided by the license applicant, that the alternative condition—

"(A) provides for the adequate protection and utilization of the reservation; and

"(B) will either—

"(i) cost less to implement, or

"(ii) result in improved operation of the project works for electricity production as compared to the condition initially deemed necessary by the Secretary.

"(3) The Secretary shall submit into the public record of the Commission proceeding with any condition under subsection (e) or alternative condition it accepts under this subsection a written statement explaining the basis for such condition, and reason for not accepting any alternative condition under this subsection, including the effects of the condition accepted and alternatives not accepted on energy supply, distribution, cost, and use, air quality, flood control, navigation, and drinking, irrigation, and recreation water supply, based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others.

"(4) Nothing in this subsection shall prohibit other interested parties from proposing alternative conditions.".

(b) ALTERNATIVE FISHWAYS.—Section 18 of the Federal Power Act (16 U.S.C. 811) is amended by—

(1) inserting "(a)" before the first sentence; and

(2) adding at the end the following:

"(b)(1) Whenever the Secretary of the Interior or the Secretary of Commerce prescribes a fishway under this section, the license applicant or the licensee may propose an alternative to such prescription to construct, maintain, or operate a fishway.

"(2) Notwithstanding subsection (a), the Secretary of the Interior or the Secretary of Commerce, as appropriate, shall accept and prescribe, and the Commission shall require, the proposed alternative referred to in paragraph (1), if the Secretary of the appropriate department determines, based on substantial evidence provided by the licensee, that the alternative—

"(A) will be no less protective of the fish resources than the fishway initially prescribed by the Secretary; and

"(B) will either—

"(i) cost less to implement, or

"(ii) result in improved operation of the project works for electricity production as compared to the fishway initially prescribed by the Secretary.

"(3) The Secretary shall submit into the public record of the Commission proceeding with any prescription under subsection (a) or alternative prescription it accepts under this subsection a written statement explaining the basis for such prescription, and reason for not accepting any alternative prescription under this subsection, including the effects of the prescription accepted or alternative not accepted on energy supply, distribution, cost, and use, air quality, flood control, navigation, and drinking, irrigation, and recreation water supply, based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others.

"(4) Nothing in this subsection shall prohibit other interested parties from proposing alternative prescriptions.".

(c) TIME OF FILING APPLICATION.—Section 15(c)(1) of the Federal Power Act (16 U.S.C. 808(c)(1)) is amended by striking the first sentence and inserting the following:

"(1) Each application for a new license pursuant to this section shall be filed with the Commission—

"(A) at least 24 months before the expiration of the term of the existing license in the case of licenses that expire prior to 2008; and

"(B) at least 36 months before the expiration of the term of the existing license in the case of licenses that expire in 2008 or any year thereafter.".

TITLE IV—INDIAN ENERGY

SEC. 401. COMPREHENSIVE INDIAN ENERGY PROGRAM.

Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501–3506) is amended by adding after section 2606 the following:

"SEC. 2607. COMPREHENSIVE INDIAN ENERGY PROGRAM.

"(a) DEFINITIONS.—For purposes of this section—

"(1) the term 'Director' means the Director of the Office of Indian Energy Policy and Programs established by section 217 of the Department of Energy Organization Act, and

"(2) the term 'Indian land' means—

"(A) any land within the limits of an Indian reservation, pueblo, or rancheria;

"(B) any land not within the limits of an Indian reservation, pueblo, or rancheria whose title is held—

"(i) in trust by the United States for the benefit of an Indian tribe,

"(ii) by an Indian tribe subject to restriction by the United States against alienation, or

"(iii) by a dependent Indian community; and

"(C) land conveyed to an Alaska Native Corporation under the Alaska Native Claims Settlement Act.

"(b) INDIAN ENERGY EDUCATION PLANNING AND MANAGEMENT ASSISTANCE.—(1) The Director shall establish programs within the Office of Indian Energy Policy and Programs to assist Indian tribes in meeting their energy education, research and development, planning, and management needs.

"(2) The Director may make grants, on a competitive basis, to an Indian tribe for—

"(A) renewable energy, energy efficiency, and conservation programs;

"(B) studies and other activities supporting tribal acquisition of energy supplies, services, and facilities;

"(C) planning, constructing, developing, operating, maintaining, and improving tribal electrical generation, transmission, and distribution facilities; and

"(D) developing, constructing, and interconnecting electric power transmission facilities with transmission facilities owned and operated by a Federal power marketing agency or an electric utility that provides open access transmission service.

"(3) The Director may develop, in consultation with Indian tribes, a formula for making grants under this section. The formula may take into account the following—

"(A) the total number of acres of Indian land owned by an Indian tribe;

"(B) the total number of households on the Indian tribe's Indian land;

"(C) the total number of households on the Indian tribe's Indian land that have no electricity service or are under-served; and

"(D) financial or other assets available to the Indian tribe from any source.

"(4) In making a grant under paragraph (2), the Director shall give priority to an application received from an Indian tribe that is not served or is served inadequately by an electric utility, as that term is defined in section 3(4) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602(4)), or by a person, State agency, or any other non-Federal entity that owns or operates a local distribu-

tion facility used for the sale of electric energy to an electric consumer.

"(5) There are authorized to be appropriated to the Department of Energy such sums as may be necessary to carry out the purposes of this section.

"(6) The Secretary is authorized to promulgate such regulations as the Secretary determines to be necessary to carry out the provisions of this subsection.

"(c) LOAN GUARANTEE PROGRAM.—

"(1) AUTHORITY.—The Secretary may guarantee not more than 90 percent of the unpaid principal and interest due on any loan made to any Indian tribe for energy development, including the planning, development, construction, and maintenance of electrical generation plants, and for transmission and delivery mechanisms for electricity produced on Indian land. A loan guaranteed under this subsection shall be made by—

"(A) a financial institution subject to the examination of the Secretary; or

"(B) an Indian tribe, from funds of the Indian tribe, to another Indian tribe.

"(2) AVAILABILITY OF APPROPRIATIONS.—Amounts appropriated to cover the cost of loan guarantees shall be available without fiscal year limita-

tion to the Secretary to fulfill obligations arising under this subsection.

"(3) AUTHORIZATION OF APPROPRIATIONS.—(A) There are authorized to be appropriated to the Secretary such sums as may be necessary to cover the cost of loan guarantees, as defined by section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)).

"(B) There are authorized to be appropriated to the Secretary such sums as may be necessary to cover the administrative expenses related to carrying out the loan guarantee program established by this subsection.

"(4) LIMITATION ON AMOUNT.—The aggregate outstanding amount guaranteed by the Secretary of Energy at any one time under this subsection shall not exceed $2,000,000,000.

"(5) REGULATIONS.—The Secretary is authorized to promulgate such regulations as the Secretary determines to be necessary to carry out the provisions of this subsection.

"(d) INDIAN ENERGY PREFERENCE.—(1) An agency or department of the United States Government may give, in the purchase of electricity, oil, gas, coal, or other energy product or by-product, preference in such purchase to an

energy and resource production enterprise, partnership, corporation, or other type of business organization majority or wholly owned and controlled by a tribal government.

"(2) In implementing this subsection, an agency or department shall pay no more than the prevailing market price for the energy product or by-product and shall obtain no less than existing market terms and conditions.

"(e) EFFECT ON OTHER LAWS.—This section does not—

"(1) limit the discretion vested in an Administrator of a Federal power marketing agency to market and allocate Federal power, or

"(2) alter Federal laws under which a Federal power marketing agency markets, allocates, or purchases power.".

SEC. 402. OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS.

Title II of the Department of Energy Organization Act is amended by adding at the end the following:

"OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

"SEC. 217. (a) There is established within the Department an Office of Indian Energy Policy and Programs. This Office shall be headed by a Director, who shall be appointed by the Secretary and compensated at the rate equal to that of level IV of the Executive Schedule under section 5315 of title 5, United States Code.

"(b) The Director shall provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs of the Department that—

"(1) promote tribal energy efficiency and utilization;

"(2) modernize and develop, for the benefit of Indian tribes, tribal energy and economic infrastructure related to natural resource development and electrification;

"(3) preserve and promote tribal sovereignty and self determination related to energy matters and energy deregulation;

"(4) lower or stabilize energy costs; and

"(5) electrify tribal members' homes and tribal lands.

"(c) The Director shall carry out the duties assigned the Secretary or the Director under title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.).".

SEC. 403. CONFORMING AMENDMENTS.

(a) AUTHORIZATION OF APPROPRIATIONS.—Section 2603(c) of the Energy Policy Act of 1992 (25 U.S.C. 3503(c)) is amended to read as follows:

"(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this section.".

(b) TABLE OF CONTENTS.—The table of contents of the Department of Energy Act is amended by inserting after the item relating to section 216 the following new item:

"Sec. 217. Office of Indian Energy Policy and Programs.".

(c) EXECUTIVE SCHEDULE.—Section 5315 of title 5, United States Code, is amended by inserting "Director, Office of Indian Energy Policy and Programs, Department of Energy." after "Inspector General, Department of Energy.".

SEC. 404. SITING ENERGY FACILITIES ON TRIBAL LANDS.

(a) DEFINITIONS.—For purposes of this section:

(1) INDIAN TRIBE.—The term "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians, except that such term does not include any Regional Corporation as defined in section 3(g) of the Alaska Native Claims Settlement Act (43 U.S.C. 1602(g)).

(2) INTERESTED PARTY.—The term "interested party" means a person whose interests could be ad-

versely affected by the decision of an Indian tribe to grant a lease or right-of-way pursuant to this section.

(3) PETITION.—The term "petition" means a written request submitted to the Secretary for the review of an action (or inaction) of the Indian tribe that is claimed to be in violation of the approved tribal regulations.

(4) RESERVATION.—The term "reservation" means—

(A) with respect to a reservation in a State other than Oklahoma, all land that has been set aside or that has been acknowledged as having been set aside by the United States for the use of an Indian tribe, the exterior boundaries of which are more particularly defined in a final tribal treaty, agreement, executive order, Federal statute, secretarial order, or judicial determination;

(B) with respect to a reservation in the State of Oklahoma, all land that is—

(i) within the jurisdictional area of an Indian tribe, and

(ii) within the boundaries of the last reservation of such tribe that was estab-

lished by treaty, executive order, or secretarial order.

(5) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(6) TRIBAL LANDS.—The term 'tribal lands' means any tribal trust lands, or other lands owned by an Indian tribe that are within such tribe's reservation.

(b) LEASES INVOLVING GENERATION, TRANSMISSION, DISTRIBUTION OR ENERGY PROCESSING FACILITIES.—An Indian tribe may grant a lease of tribal land for electric generation, transmission, or distribution facilities, or facilities to process or refine renewable or nonrenewable energy resources developed on tribal lands, and such leases shall not require the approval of the Secretary if the lease is executed under tribal regulations approved by the Secretary under this subsection and the term of the lease does not exceed 30 years.

(c) RIGHTS-OF-WAY FOR ELECTRIC GENERATION, TRANSMISSION, DISTRIBUTION OR ENERGY PROCESSING FACILITIES.—An Indian tribe may grant a right-of-way over tribal lands for a pipeline or an electric transmission or distribution line without separate approval by the Secretary, if—

(1) the right-of-way is executed under and complies with tribal regulations approved by the Secretary and the term of the right-of-way does not exceed 30 years; and

(2) the pipeline or electric transmission or distribution line serves—

(A) an electric generation, transmission or distribution facility located on tribal land, or

(B) a facility located on tribal land that processes or refines renewable or nonrenewable energy resources developed on tribal lands.

(d) RENEWALS.—Leases or rights-of-way entered into under this subsection may be renewed at the discretion of the Indian tribe in accordance with the requirements of this section.

(e) TRIBAL REGULATION REQUIREMENTS.—(1) The Secretary shall have the authority to approve or disapprove tribal regulations required under this subsection. The Secretary shall approve such tribal regulations if they are comprehensive in nature, including provisions that address—

(A) securing necessary information from the lessee or right-of-way applicant;

(B) term of the conveyance;

(C) amendments and renewals;

(D) consideration for the lease or right-of-way;

(E) technical or other relevant requirements;

(F) requirements for environmental review as set forth in paragraph (3);

(G) requirements for complying with all applicable environmental laws; and

(H) final approval authority.

(2) No lease or right-of-way shall be valid unless authorized in compliance with the approved tribal regulations.

(3) An Indian tribe, as a condition of securing Secretarial approval as contemplated in paragraph (1), must establish an environmental review process that includes the following—

(A) an identification and evaluation of all significant environmental impacts of the proposed action as compared to a no action alternative;

(B) identification of proposed mitigation;

(C) a process for ensuring that the public is informed of and has an opportunity to comment on the proposed action prior to tribal approval of the lease or right-of-way; and

(D) sufficient administrative support and technical capability to carry out the environmental review process.

(4) The Secretary shall review and approve or disapprove the regulations of the Indian tribe within 180 days of the submission of such regulations to the Secretary. Any disapproval of such regulations by the Secretary shall be accompanied by written documentation that sets forth the basis for the disapproval. The 180-day period may be extended by the Secretary after consultation with the Indian tribe.

(5) If the Indian tribe executes a lease or right-of-way pursuant to tribal regulations required under this subsection, the Indian tribe shall provide the Secretary with—

(A) a copy of the lease or right-of-way document and all amendments and renewals thereto; and

(B) in the case of regulations or a lease or right-of-way that permits payment to be made directly to the Indian tribe, documentation of the payments sufficient to enable the Secretary to discharge the trust responsibility of the United States as appropriate under existing law.

(6) The United States shall not be liable for losses sustained by any party to a lease executed pursuant to tribal regulations under this subsection, including the Indian tribe.

(7)(A) An interested party may, after exhaustion of tribal remedies, submit, in a timely manner, a petition to

the Secretary to review the compliance of the Indian tribe with any tribal regulations approved under this subsection. If upon such review, the Secretary determines that the regulations were violated, the Secretary may take such action as may be necessary to remedy the violation, including rescinding or holding the lease or right-of-way in abeyance until the violation is cured. The Secretary may also rescind the approval of the tribal regulations and reassume the responsibility for approval of leases or rights-of-way associated with the facilities addressed in this section.

(B) If the Secretary seeks to remedy a violation described in subparagraph (A), the Secretary shall—

(i) make a written determination with respect to the regulations that have been violated;

(ii) provide the Indian tribe with a written notice of the alleged violation together with such written determination; and

(iii) prior to the exercise of any remedy or the rescission of the approval of the regulations involved and reassumption of the lease or right-of-way approval responsibility, provide the Indian tribe with a hearing and a reasonable opportunity to cure the alleged violation.

(C) The tribe shall retain all rights to appeal as provided by regulations promulgated by the Secretary.

(f) AGREEMENTS.—(1) Agreements between an Indian tribe and a business entity that are directly associated with the development of electric generation, transmission or distribution facilities, or facilities to process or refine renewable or nonrenewable energy resources developed on tribal lands, shall not separately require the approval of the Secretary pursuant to section 18 of title 25, United States Code, so long as the activity that is the subject of the agreement has been the subject of an environmental review process pursuant to subsection (e) of this section.

(2) The United States shall not be liable for any losses or damages sustained by any party, including the Indian tribe, that are associated with an agreement entered into under this subsection.

(g) DISCLAIMER.—Nothing in this section is intended to modify or otherwise affect the applicability of any provision of the Indian Mineral Leasing Act of 1938 (25 U.S.C. 396a–396g); Indian Mineral Development Act of 1982 (25 U.S.C. 2101–2108); Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201–1328); any amendments thereto; or any other laws not specifically addressed in this section.

SEC. 405. INDIAN MINERAL DEVELOPMENT ACT REVIEW.

(a) IN GENERAL.—The Secretary of the Interior shall conduct a review of the activities that have been conducted

by the governments of Indian tribes under the authority of the Indian Mineral Development Act of 1982 (25 U.S.C. 2101 et seq.).

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Secretary shall transmit to the Committee on Resources of the House of Representatives and the Committee on Indian Affairs and the Committee on Energy and Natural Resources of the Senate a report containing—

(1) the results of the review;

(2) recommendations designed to help ensure that Indian tribes have the opportunity to develop their nonrenewable energy resources; and

(3) an analysis of the barriers to the development of energy resources on Indian land, including Federal policies and regulations, and make recommendations regarding the removal of those barriers.

(c) CONSULTATION.—The Secretary shall consult with Indian tribes on a government-to-government basis in developing the report and recommendations as provided in this subsection.

SEC. 406. RENEWABLE ENERGY STUDY.

(a) IN GENERAL.—Not later than 2 years after the date of the enactment of this Act, and once every 2 years thereafter, the Secretary of Energy shall transmit to the

Committees on Energy and Commerce and Resources of the House of Representatives and the Committees on Energy and Natural Resources and Indian Affairs of the Senate a report on energy consumption and renewable energy development potential on Indian land. The report shall identify barriers to the development of renewable energy by Indian tribes, including Federal policies and regulations, and make recommendations regarding the removal of such barriers.

(b) CONSULTATION.—The Secretary shall consult with Indian tribes on a government-to-government basis in developing the report and recommendations as provided in this section.

SEC. 407. FEDERAL POWER MARKETING ADMINISTRATIONS.

Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501) (as amended by section 201) is amended by adding at the end the following:

"SEC. 2608. FEDERAL POWER MARKETING ADMINISTRATIONS.

"(a) DEFINITION OF ADMINISTRATOR.—In this section, the term 'Administrator' means—

"(1) the Administrator of the Bonneville Power Administration; or

"(2) the Administrator of the Western Area Power Administration.

"(b) ASSISTANCE FOR TRANSMISSION STUDIES.—(1) Each Administrator may provide technical assistance to Indian tribes seeking to use the high-voltage transmission system for delivery of electric power. The costs of such technical assistance shall be funded—

"(A) by the Administrator using non-reimbursable funds appropriated for this purpose, or

"(B) by the Indian tribe.

"(2) PRIORITY FOR ASSISTANCE FOR TRANSMISSION STUDIES.—In providing discretionary assistance to Indian tribes under paragraph (1), each Administrator shall give priority in funding to Indian tribes that have limited financial capability to conduct such studies.

"(c) POWER ALLOCATION STUDY.—(1) Not later than 2 years after the date of enactment of this Act, the Secretary of Energy shall transmit to the Committees on Energy and Commerce and Resources of the House of Representatives and the Committees on Energy and Natural Resources and Indian Affairs of the Senate a report on Indian tribes' utilization of Federal power allocations of the Western Area Power Administration, or power sold by the Southwestern Power Administration, and the Bonneville Power Administration to or for the benefit of Indian tribes in their service areas. The report shall identify—

"(A) the amount of power allocated to tribes by the Western Area Power Administration, and how the benefit of that power is utilized by the tribes;

"(B) the amount of power sold to tribes by other Power Marketing Administrations; and

"(C) existing barriers that impede tribal access to and utilization of Federal power, and opportunities to remove such barriers and improve the ability of the Power Marketing Administration to facilitate the utilization of Federal power by Indian tribes.

"(2) The Power Marketing Administrations shall consult with Indian tribes on a government-to-government basis in developing the report provided in this section.

"(d) AUTHORIZATION FOR APPROPRIATION.—There are authorized to be appropriated to the Secretary of Energy such sums as may be necessary to carry out the purposes of this section.".

SEC. 408. FEASIBILITY STUDY OF COMBINED WIND AND HYDROPOWER DEMONSTRATION PROJECT.

(a) STUDY.—The Secretary of Energy, in coordination with the Secretary of the Army and the Secretary of the Interior, shall conduct a study of the cost and feasibility of developing a demonstration project that would use wind energy generated by Indian tribes and hydropower generated by the Army Corps of Engineers on the Missouri

River to supply firming power to the Western Area Power Administration.

(b) SCOPE OF STUDY.—The study shall—

(1) determine the feasibility of the blending of wind energy and hydropower generated from the Missouri River dams operated by the Army Corps of Engineers;

(2) review historical purchase requirements and projected purchase requirements for firming and the patterns of availability and use of firming energy;

(3) assess the wind energy resource potential on tribal lands and projected cost savings through a blend of wind and hydropower over a thirty-year period;

(4) include a preliminary interconnection study and a determination of resource adequacy of the Upper Great Plains Region of the Western Area Power Administration;

(5) determine seasonal capacity needs and associated transmission upgrades for integration of tribal wind generation; and

(6) include an independent tribal engineer as a study team member.

(c) REPORT.—The Secretary of Energy and Secretary of the Army shall submit a report to Congress not later than

1 year after the date of enactment of this title. The Secretaries shall include in the report—

(1) an analysis of the potential energy cost savings to the customers of the Western Area Power Administration through the blend of wind and hydropower;

(2) an evaluation of whether a combined wind and hydropower system can reduce reservoir fluctuation, enhance efficient and reliable energy production and provide Missouri River management flexibility;

(3) recommendations for a demonstration project which the Western Area Power Administration could carry out in partnership with an Indian tribal government or tribal government energy consortium to demonstrate the feasibility and potential of using wind energy produced on Indian lands to supply firming energy to the Western Area Power Administration or other Federal power marketing agency; and

(4) an identification of the economic and environmental benefits to be realized through such a Federal-tribal partnership and identification of how such a partnership could contribute to the energy security of the United States.

(d) CONSULTATION.—The Secretary shall consult with Indian tribes on a government-to-government basis in devel-

oping the report and recommendations provided in this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $500,000 to carry out this section, which shall remain available until expended. All costs incurred by the Western Area Power Administration associated with performing the tasks required under this section shall be nonreimbursable.

TITLE V—NUCLEAR POWER

Subtitle A—Price-Anderson Act Reauthorization

SEC. 501. SHORT TITLE.

This subtitle may be cited as the "Price-Anderson Amendments Act of 2002".

SEC. 502. EXTENSION OF INDEMNIFICATION AUTHORITY.

(a) INDEMNIFICATION OF NUCLEAR REGULATORY COMMISSION LICENSEES.—Section 170c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended—

(1) in the subsection heading, by striking "LICENSES" and inserting "LICENSEES"; and

(2) by striking "August 1, 2002" each place it appears and inserting "August 1, 2012".

(b) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170d.(1)(A) of the Atomic Energy

Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking ", until August 1, 2002,".

(c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.—Section 170k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking "August 1, 2002" each place it appears and inserting "August 1, 2012".

SEC. 503. DEPARTMENT OF ENERGY LIABILITY LIMIT.

(a) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting the following:

"(2) In agreements of indemnification entered into under paragraph (1), the Secretary—

"(A) may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity; and

"(B) shall indemnify the persons indemnified against such liability above the amount of the financial protection required, in the amount of $10,000,000,000 (subject to adjustment for inflation under subsection t.), in the aggregate, for

all persons indemnified in connection with such contract and for each nuclear incident, including such legal costs of the contractor as are approved by the Secretary.".

(b) CONTRACT AMENDMENTS.—Section 170d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further amended by striking paragraph (3) and inserting the following:

"(3) All agreements of indemnification under which the Department of Energy (or its predecessor agencies) may be required to indemnify any person under this section shall be deemed to be amended, on the date of the enactment of the Price-Anderson Amendments Act of 2002, to reflect the amount of indemnity for public liability and any applicable financial protection required of the contractor under this subsection.".

(c) LIABILITY LIMIT.—Section 170e.(1)(B) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(1)(B)) is amended—

(1) by striking "the maximum amount of financial protection required under subsection b. or"; and

(2) by striking "paragraph (3) of subsection d., whichever amount is more" and inserting "paragraph (2) of subsection d.".

SEC. 504. INCIDENTS OUTSIDE THE UNITED STATES.

(a) AMOUNT OF INDEMNIFICATION.—Section 170d.(5) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(5)) is amended by striking "$100,000,000" and inserting "$500,000,000".

(b) LIABILITY LIMIT.—Section 170e.(4) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is amended by striking "$100,000,000" and inserting "$500,000,000".

SEC. 505. REPORTS.

Section 170p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking "August 1, 1998" and inserting "August 1, 2008".

SEC. 506. INFLATION ADJUSTMENT.

Section 170t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended—

(1) by redesignating paragraph (2) as paragraph (3); and

(2) by adding after paragraph (1) the following:

"(2) The Secretary shall adjust the amount of indemnification provided under an agreement of indemnification under subsection d. not less than once during each 5-year period following July 1, 2002, in accordance with the aggregate percentage change in the Consumer Price Index since—

"(A) that date, in the case of the first adjustment under this paragraph; or

"(B) the previous adjustment under this paragraph.".

SEC. 507. CIVIL PENALTIES.

(a) REPEAL OF AUTOMATIC REMISSION.—Section 234Ab.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(b)(2)) is amended by striking the last sentence.

(b) LIMITATION FOR NOT-FOR-PROFIT INSTITUTIONS.—Subsection d. of section 234A of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:

"d.(1) Notwithstanding subsection a., in the case of any not-for-profit contractor, subcontractor, or supplier, the total amount of civil penalties assessed under subsection a. may not exceed the total amount of fees paid within any one-year period (as determined by the Secretary) under the contract under which the violation occurs.

"(2) For purposes of this section, the term 'not-for-profit' means that no part of the net earnings of the contractor, subcontractor, or supplier inures, or may lawfully inure, to the benefit of any natural person or for-profit artificial person.".

(c) EFFECTIVE DATE.—The amendments made by this section shall not apply to any violation of the Atomic En-

ergy Act of 1954 occurring under a contract entered into before the date of enactment of this section.

SEC. 508. TREATMENT OF MODULAR REACTORS.

Section 170b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended by adding at the end the following:

"(5)(A) For purposes of this section only, the Commission shall consider a combination of facilities described in subparagraph (B) to be a single facility having a rated capacity of 100,000 electrical kilowatts or more.

"(B) A combination of facilities referred to in subparagraph (A) is two or more facilities located at a single site, each of which has a rated capacity of 100,000 electrical kilowatts or more but not more than 300,000 electrical kilowatts, with a combined rated capacity of not more than 1,300,000 electrical kilowatts.".

SEC. 509. EFFECTIVE DATE.

The amendments made by sections 503(a) and 504 do not apply to any nuclear incident that occurs before the date of the enactment of this subtitle.

Subtitle B—Miscellaneous Provisions

SEC. 511. URANIUM SALES.

(a) INVENTORY SALES.—Section 3112(d) of the USEC Privatization Act (42 U.S.C. 2297h–10(d)) is amended to read as follows:

"(d) INVENTORY SALES.—(1) In addition to the transfers authorized under subsections (b), (c), and (e), the Secretary may, from time to time, sell or transfer uranium (including natural uranium concentrates, natural uranium hexafluoride, enriched uranium, and depleted uranium) from the Department of Energy's stockpile.

"(2) Except as provided in subsections (b), (c), and (e), the Secretary may not deliver uranium in any form for consumption by end users in any year in excess of the following amounts:

"Annual Maximum Deliveries to End Users

"Year:	***(Million lbs. U_3O_8 equivalent)***
2003 through 2009	*3*
2010	*5*
2011	*5*
2012	*7*
2013 and each year thereafter	*10.*

"(3) Except as provided in subsections (b), (c), and (e), no sale or transfer of uranium in any form shall be made unless—

"(A) the President determines that the material is not necessary for national security needs;

"(B) the Secretary determines, based on the written views of the Secretary of State and the Assistant to the President for National Security Affairs, that the sale or transfer will not adversely affect the national security interests of the United States;

"(C) the Secretary determines that the sale of the material will not have an adverse material impact on the domestic uranium mining, conversion, or enrichment industry, taking into account the sales of uranium under the Russian HEU Agreement and the Suspension Agreement; and

"(D) the price paid to the Secretary will not be less than the fair market value of the material.".

(b) EXEMPT TRANSFERS AND SALES.—Section 3112(e) of the USEC Privatization Act (42 U.S.C. 2297h–10(e)) is amended to read as follows:

"(e) EXEMPT SALES OR TRANSFERS.—Notwithstanding subsection (d)(2), the Secretary may transfer or sell uranium—

"(1) to the Tennessee Valley Authority for use pursuant to the Department of Energy's highly enriched uranium or tritium program, to the extent provided by law;

"(2) to research and test reactors under the University Reactor Fuel Assistance and Support Pro-

gram or the Reduced Enrichment for Research and Test Reactors Program;

"(3) to USEC Inc. to replace contaminated uranium received from the Department of Energy when the United States Enrichment Corporation was privatized;

"(4) to any person for emergency purposes in the event of a disruption in supply to end users in the United States; and

"(5) to any person for national security purposes, as determined by the Secretary.".

SEC. 512. REAUTHORIZATION OF THORIUM REIMBURSEMENT.

(a) REIMBURSEMENT OF THORIUM LICENSEES.— Section 1001(b)(2)(C) of the Energy Policy Act of 1992 (42 U.S.C. 2296a) is amended—

(1) by striking "$140,000,000" and inserting "$365,000,000"; and

(2) by adding at the end the following: "Such payments shall not exceed the following amounts:

"(i) $90,000,000 in fiscal year 2002.

"(ii) $55,000,000 in fiscal year 2003.

"(iii) $20,000,000 in fiscal year 2004.

"(iv) $20,000,000 in fiscal year 2005.

"(v) $20,000,000 in fiscal year 2006.

"(vi) $20,000,000 in fiscal year 2007. Any amounts authorized to be paid in a fiscal year under this subparagraph that are not paid in that fiscal year may be paid in subsequent fiscal years.".

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 1003(a) of the Energy Policy Act of 1992 (42 U.S.C. 2296a–2) is amended by striking "$490,000,000" and inserting "$715,000,000".

(c) DECONTAMINATION AND DECOMMISSIONING FUND.—Section 1802(a) of the Atomic Energy Act of 1954 (42 U.S.C. 2297g–1(a)) is amended—

(1) by striking "$488,333,333" and inserting "$518,233,333"; and

(2) by inserting after "inflation" the following: "beginning on the date of enactment of the Energy Policy Act of 1992".

SEC. 513. FAST FLUX TEST FACILITY.

The Secretary of Energy shall not reactivate the Fast Flux Test Facility to conduct—

(1) any atomic energy defense activity,

(2) any space-related mission, or

(3) any program for the production or utilization of nuclear material if the Secretary has deter-

mined, in a record of decision, that the program can be carried out at existing operating facilities.

SEC. 514. NUCLEAR POWER 2010.

(a) DEFINITIONS.—In this section:

(1) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(2) OFFICE.—The term "Office" means the Office of Nuclear Energy Science and Technology of the Department of Energy.

(3) DIRECTOR.—The term "Director" means the Director of the Office of Nuclear Energy Science and Technology of the Department of Energy.

(4) PROGRAM.—The term "Program" means the Nuclear Power 2010 Program.

(b) ESTABLISHMENT.—The Secretary shall carry out a program, to be managed by the Director.

(c) PURPOSE.—The program shall aggressively pursue those activities that will result in regulatory approvals and design completion in a phased approach, with joint government/industry cost sharing, which would allow for the construction and startup of new nuclear plants in the United States by 2010.

(d) ACTIVITIES.—In carrying out the program, the Director shall—

(1) issue a solicitation to industry seeking proposals from joint venture project teams comprised of reactor vendors and power generation companies to participate in the Nuclear Power 2010 program;

(2) seek innovative business arrangements, such as consortia among designers, constructors, nuclear steam supply systems and major equipment suppliers, and plant owner/operators, with strong and common incentives to build and operate new plants in the United States;

(3) conduct the Nuclear Power 2010 program consistent with the findings of "A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010" issued by the Near-Term Deployment Working Group of the Nuclear Energy Research Advisory Committee of the Department of Energy;

(4) rely upon the expertise and capabilities of the Department of Energy national laboratories and sites in the areas of advanced nuclear fuel cycles and fuels testing, giving consideration to existing lead laboratory designations and the unique capabilities and facilities available at each national laboratory and site;

(5) pursue deployment of both water-cooled and gas-cooled reactor designs on a dual track basis that

will provide maximum potential for the success of both;

(6) include participation of international collaborators in research and design efforts where beneficial; and

(7) seek to accomplish the essential regulatory and technical work, both generic and design-specific, to make possible new nuclear plants within this decade.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the purposes of this section such sums as are necessary for fiscal year 2003 and for each fiscal year thereafter.

SEC. 515. OFFICE OF SPENT NUCLEAR FUEL RESEARCH.

(a) FINDINGS.—Congress finds that—

(1) before the Federal Government takes any irreversible action relating to the disposal of spent nuclear fuel, Congress must determine whether the spent fuel in the repository should be treated as waste subject to permanent burial or should be considered an energy resource that is needed to meet future energy requirements; and

(2) national policy on spent nuclear fuel may evolve with time as improved technologies for spent fuel are developed or as national energy needs evolve.

(b) DEFINITIONS.—In this section:

(1) ASSOCIATE DIRECTOR.—The term "Associate Director" means the Associate Director of the Office.

(2) OFFICE.—The term "Office" means the Office of Spent Nuclear Fuel Research within the Office of Nuclear Energy Science and Technology of the Department of Energy.

(c) ESTABLISHMENT.—There is established an Office of Spent Nuclear Fuel Research within the Office of Nuclear Energy Science and Technology of the Department of Energy.

(d) HEAD OF OFFICE.—The Office shall be headed by the Associate Director, who shall be a member of the Senior Executive Service appointed by the Director of the Office of Nuclear Energy Science and Technology, and compensated at a rate determined by applicable law.

(e) DUTIES OF THE ASSOCIATE DIRECTOR.—

(1) IN GENERAL.—The Associate Director shall be responsible for carrying out an integrated research, development, and demonstration program on technologies for treatment, recycling, and disposal of high-level nuclear radioactive waste and spent nuclear fuel, subject to the general supervision of the Secretary.

(2) PARTICIPATION.—The Associate Director shall coordinate the participation of national laboratories, universities, the commercial nuclear industry, and other organizations in the investigation of technologies for the treatment, recycling, and disposal of spent nuclear fuel and high-level radioactive waste.

(3) ACTIVITIES.—The Associate Director shall—

(A) develop a research plan to provide recommendations by 2015;

(B) identify promising technologies for the treatment, recycling, and disposal of spent nuclear fuel and high-level radioactive waste;

(C) conduct research and development activities for promising technologies;

(D) ensure that all activities include as key objectives minimization of proliferation concerns and risk to the health of the general public or site workers, as well as development of cost-effective technologies;

(E) require research on both reactor- and accelerator-based transmutation systems;

(F) require research on advanced processing and separations;

(G) include participation of international collaborators in research efforts, and provide

funding to a collaborator that brings unique capabilities not available in the United States if the country in which the collaborator is located is unable to provide for their support; and

(H) ensure that research efforts are coordinated with research on advanced fuel cycles and reactors conducted by the Office of Nuclear Energy Science and Technology.

(f) GRANT AND CONTRACT AUTHORITY.—The Secretary may make grants, or enter into contracts, for the purposes of the research projects and activities described in this section.

(g) REPORT.—The Associate Director shall annually submit to Congress a report on the activities and expenditures of the Office that describes the progress being made in achieving the objectives of this section.

SEC. 516. DECOMMISSIONING PILOT PROGRAM.

(a) PILOT PROGRAM.—The Secretary of Energy shall establish a decommissioning pilot program to decommission and decontaminate the sodium-cooled fast breeder experimental test-site reactor located in northwest Arkansas in accordance with the decommissioning activities contained in the August 31, 1998, Department of Energy report on the reactor.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $16,000,000.

Subtitle C—Growth of Nuclear Energy

SEC. 521. COMBINED LICENSE PERIODS.

Section 103c. of the Atomic Energy Act of 1954 (42 U.S.C. 2133(c)) is amended—

(1) by striking "c. Each such" and inserting the following:

"c. LICENSE PERIOD.—

"(1) IN GENERAL.—Each such"; and

(2) by adding at the end the following:

"(2) COMBINED LICENSES.—In the case of a combined construction and operating license issued under section 185(b), the duration of the operating phase of the license period shall not be less than the duration of the operating license if application had been made for separate construction and operating licenses.".

Subtitle D—NRC Regulatory Reform

SEC. 531. ANTITRUST REVIEW.

(a) IN GENERAL.—Section 105 of the Atomic Energy Act of 1954 (42 U.S.C. 2135) is amended by adding at the end the following:

"d. ANTITRUST LAWS.—

"(1) NOTIFICATION.—Except as provided in paragraph (4), when the Commission proposes to issue a license under section 103 or 104b., the Commission shall notify the Attorney General of the proposed license and the proposed terms and conditions of the license.

"(2) ACTION BY THE ATTORNEY GENERAL.—Within a reasonable time (but not more than 90 days) after receiving notification under paragraph (1), the Attorney General shall submit to the Commission and publish in the Federal Register a determination whether, insofar as the Attorney General is able to determine, the proposed license would tend to create or maintain a situation inconsistent with the antitrust laws.

"(3) INFORMATION.—On the request of the Attorney General, the Commission shall furnish or cause to be furnished such information as the Attorney Gen-

eral determines to be appropriate or necessary to enable the Attorney General to make the determination under paragraph (2).

"(4) APPLICABILITY.—This subsection shall not apply to such classes or type of licenses as the Commission, with the approval of the Attorney General, determines would not significantly affect the activities of a licensee under the antitrust laws.".

(b) CONFORMING AMENDMENT.—Section 105c. of the Atomic Energy Act of 1954 (42 U.S.C. 2135(c)) is amended by adding at the end the following:

"(9) APPLICABILITY.—This subsection does not apply to an application for a license to construct or operate a utilization facility under section 103 or 104b. that is filed on or after the date of enactment of subsection d.".

SEC. 532. DECOMMISSIONING.

(a) AUTHORITY OVER FORMER LICENSEES FOR DECOMMISSIONING FUNDING.—Section 161i. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(i)) is amended—

(1) by striking "and (3)" and inserting "(3)"; and

(2) by inserting before the semicolon at the end the following: ", and (4) to ensure that sufficient funds will be available for the decommissioning of

any production or utilization facility licensed under section 103 or 104b., including standards and restrictions governing the control, maintenance, use, and disbursement by any former licensee under this Act that has control over any fund for the decommissioning of the facility".

(b) TREATMENT OF NUCLEAR REACTOR FINANCIAL OBLIGATIONS.—Section 523 of title 11, United States Code, is amended by adding at the end the following:

"(f) TREATMENT OF NUCLEAR REACTOR FINANCIAL OBLIGATIONS.—Notwithstanding any other provision of this title—

"(1) any funds or other assets held by a licensee or former licensee of the Nuclear Regulatory Commission, or by any other person, to satisfy the responsibility of the licensee, former licensee, or any other person to comply with a regulation or order of the Nuclear Regulatory Commission governing the decontamination and decommissioning of a nuclear power reactor licensed under section 103 or 104b. of the Atomic Energy Act of 1954 (42 U.S.C. 2133, 2134(b)) shall not be used to satisfy the claim of any creditor in any proceeding under this title, other than a claim resulting from an activity undertaken to satisfy that responsibility, until the decontamination and decom-

missioning of the nuclear power reactor is completed to the satisfaction of the Nuclear Regulatory Commission;

"(2) obligations of licensees, former licensees, or any other person to use funds or other assets to satisfy a responsibility described in paragraph (1) may not be rejected, avoided, or discharged in any proceeding under this title or in any liquidation, reorganization, receivership, or other insolvency proceeding under Federal or State law; and

"(3) private insurance premiums and standard deferred premiums held and maintained in accordance with section 170b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) shall not be used to satisfy the claim of any creditor in any proceeding under this title, until the indemnification agreement executed in accordance with section 170c. of that Act (42 U.S.C. 2210(c)) is terminated.".

Subtitle E—NRC Personnel Crisis

SEC. 541. ELIMINATION OF PENSION OFFSET.

Section 161 of the Atomic Energy Act of 1954 (42 U.S.C. 2201) is amended by adding at the end the following:

"y. exempt from the application of sections 8344 and 8468 of title 5, United States Code, an annuitant who was formerly an employee of the Commission who is hired by

the Commission as a consultant, if the Commission finds that the annuitant has a skill that is critical to the performance of the duties of the Commission.".

SEC. 542. NRC TRAINING PROGRAM.

(a) IN GENERAL.—In order to maintain the human resource investment and infrastructure of the United States in the nuclear sciences, health physics, and engineering fields, in accordance with the statutory authorities of the Commission relating to the civilian nuclear energy program, the Nuclear Regulatory Commission shall carry out a training and fellowship program to address shortages of individuals with critical safety skills.

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this section $1,000,000 for each of fiscal years 2003 through 2006.

(2) AVAILABILITY.—Funds made available under paragraph (1) shall remain available until expended.

DIVISION B—DOMESTIC OIL AND GAS PRODUCTION AND TRANSPORTATION

TITLE VI—OIL AND GAS PRODUCTION

SEC. 601. PERMANENT AUTHORITY TO OPERATE THE STRATEGIC PETROLEUM RESERVE.

(a) AMENDMENT TO TITLE I OF THE ENERGY POLICY AND CONSERVATION ACT.—Title I of the Energy Policy and Conservation Act (42 U.S.C. 6211 et seq.) is amended—

(1) by striking section 166 (42 U.S.C. 6246) and inserting—

"SEC. 166. There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this part, to remain available until expended."; and

(2) by striking part E (42 U.S.C. 6251; relating to the expiration of title I of the Act) and its heading.

(b) AMENDMENT TO TITLE II OF THE ENERGY POLICY AND CONSERVATION ACT.—Title II of the Energy Policy and Conservation Act (42 U.S.C. 6271 et seq.) is amended—

(1) by striking section 256(h) (42 U.S.C. 6276(h)) and inserting—

"(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such

sums as may be necessary to carry out this part, to remain available until expended.";

(2) by striking section 273(e) (42 U.S.C. 6283(e); relating to the expiration of summer fill and fuel budgeting programs); and

(3) by striking part D (42 U.S.C. 6285; relating to the expiration of title II of the Act) and its heading.

(c) TECHNICAL AMENDMENTS.—The table of contents for the Energy Policy and Conservation Act is amended by striking the items relating to part D of title I and part D of title II.

SEC. 602. FEDERAL ONSHORE LEASING PROGRAMS FOR OIL AND GAS.

(a) TIMELY ACTION ON LEASES AND PERMITS.—To ensure timely action on oil and gas leases and applications for permits to drill on lands otherwise available for leasing, the Secretary of the Interior shall—

(1) ensure expeditious compliance with the requirements of section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C));

(2) improve consultation and coordination with the States; and

(3) improve the collection, storage, and retrieval of information related to such leasing activities.

(b) IMPROVED ENFORCEMENT.—The Secretary shall improve inspection and enforcement of oil and gas activities, including enforcement of terms and conditions in permits to drill.

(c) AUTHORIZATION OF APPROPRIATIONS.—For each of the fiscal years 2003 through 2006, in addition to amounts otherwise authorized to be appropriated for the purpose of carrying out section 17 of the Mineral Leasing Act (30 U.S.C. 226), there are authorized to be appropriated to the Secretary of the Interior—

(1) $40,000,000 for the purpose of carrying out paragraphs (1) through (3) of subsection (a); and

(2) $20,000,000 for the purpose of carrying out subsection (b).

SEC. 603. OIL AND GAS LEASE ACREAGE LIMITATIONS.

Section 27(d)(1) of the Mineral Leasing Act (30 U.S.C. 184(d)(1)) is amended by inserting after "acreage held in special tar sand areas" the following: "as well as acreage under any lease any portion of which has been committed to a federally approved unit or cooperative plan or communitization agreement, or for which royalty, including compensatory royalty or royalty in kind, was paid in the preceding calendar year,".

SEC. 604. ORPHANED AND ABANDONED WELLS ON FEDERAL LAND.

(a) ESTABLISHMENT.—(1) The Secretary of the Interior, in cooperation with the Secretary of Agriculture, shall establish a program to ensure within 3 years after the date of enactment of this Act, remediation, reclamation, and closure of orphaned oil and gas wells located on lands administered by the land management agencies within the Department of the Interior and the United States Forest Service that are—

(A) abandoned;

(B) orphaned; or

(C) idled for more than 5 years and having no beneficial use.

(2) The program shall include a means of ranking critical sites for priority in remediation based on potential environmental harm, other land use priorities, and public health and safety.

(3) The program shall provide that responsible parties be identified wherever possible and that the costs of remediation be recovered.

(4) In carrying out the program, the Secretary of the Interior shall work cooperatively with the Secretary of Agriculture and the States within which the Federal lands are located, and shall consult with the Secretary of Energy, and the Interstate Oil and Gas Compact Commission.

(b) PLAN.—Within 6 months from the date of enactment of this section, the Secretary of the Interior, in cooperation with the Secretary of Agriculture, shall prepare a plan for carrying out the program established under subsection (a). Copies of the plan shall be transmitted to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of the Interior $5,000,000 for each of fiscal years 2003 through 2005 to carry out the activities provided for in this section.

SEC. 605. ORPHANED AND ABANDONED OIL AND GAS WELL PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy shall establish a program to provide technical assistance to the various oil and gas producing States to facilitate State efforts over a 10-year period to ensure a practical and economical remedy for environmental problems caused by orphaned and abandoned exploration or production well sites on State and private lands. The Secretary shall work with the States, through the Interstate Oil and Gas Compact Commission, to assist the States in quantifying and mitigating environmental risks of onshore abandoned and orphaned wells on State and private lands.

(b) PROGRAM ELEMENTS.—The program should include—

(1) mechanisms to facilitate identification of responsible parties wherever possible;

(2) criteria for ranking critical sites based on factors such as other land use priorities, potential environmental harm and public visibility; and

(3) information and training programs on best practices for remediation of different types of sites.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy for the activities under this section $5,000,000 for each of fiscal years 2003 through 2005 to carry out the provisions of this section.

SEC. 606. OFFSHORE DEVELOPMENT.

Section 5 of the Outer Continental Shelf Lands Act of 1953 (43 U.S.C. 1334) is amended by adding at the end the following:

"(k) SUSPENSION OF OPERATIONS FOR SUBSALT EXPLORATION.—Notwithstanding any other provision of law or regulation, the Secretary may grant a request for a suspension of operations under any lease to allow the lessee to reprocess or reinterpret geologic or geophysical data beneath allocthonous salt sheets, when in the Secretary's judgment such suspension is necessary to prevent waste caused

by the drilling of unnecessary wells, and to maximize ultimate recovery of hydrocarbon resources under the lease. Such suspension shall be limited to the minimum period of time the Secretary determines is necessary to achieve the objectives of this subsection.".

SEC. 607. COALBED METHANE STUDY.

(a) STUDY.—The National Academy of Sciences shall conduct a study on the effects of coalbed methane production on surface and water resources.

(b) DATA ANALYSIS.—The study shall analyze available hydrogeologic and water quality data, along with other pertinent environmental or other information to determine—

(1) adverse effects associated with surface or subsurface disposal of waters produced during extraction of coalbed methane;

(2) depletion of groundwater aquifers or drinking water sources associated with production of coalbed methane;

(3) any other significant adverse impacts to surface or water resources associated with production of coalbed methane; and

(4) production techniques or other factors that can mitigate adverse impacts from coalbed methane development.

(c) RECOMMENDATIONS.—The study shall analyze existing Federal and State laws and regulations, and make recommendations as to changes, if any, to Federal law necessary to address adverse impacts to surface or water resources attributable to coalbed methane development.

(d) COMPLETION OF STUDY.—The National Academy of Sciences shall submit the study to the Secretary of the Interior within 18 months after the date of enactment of this Act, and shall make the study available to the public at the same time.

(e) REPORT TO CONGRESS.—The Secretary of the Interior shall report to Congress within 6 months of her receipt of the study on—

(1) the findings and recommendations of the study;

(2) the Secretary's agreement or disagreement with each of its findings and recommendations; and

(3) any recommended changes in funding to address the effects of coalbed methane production on surface and water resources.

SEC. 608. FISCAL POLICIES TO MAXIMIZE RECOVERY OF DOMESTIC OIL AND GAS RESOURCES.

(a) EVALUATION.—The Secretary of Energy, in coordination with the Secretaries of the Interior, Commerce, and Treasury, Indian tribes and the Interstate Oil and Gas

Compact Commission, shall evaluate the impact of existing Federal and State tax and royalty policies on the development of domestic oil and gas resources and on revenues to Federal, State, local and tribal governments.

(b) SCOPE.—The evaluation under subsection (a) shall—

(1) analyze the impact of fiscal policies on oil and natural gas exploration, development drilling, and production under different price scenarios, including the impact of the individual and corporate Alternative Minimum Tax, State and local production taxes and fixed royalty rates during low price periods;

(2) assess the effect of existing Federal and State fiscal policies on investment under different geological and developmental circumstances, including but not limited to deepwater environments, subsalt formations, deep and deviated wells, coalbed methane and other unconventional oil and gas formations;

(3) assess the extent to which Federal and State fiscal policies negatively impact the ultimate recovery of resources from existing fields and smaller accumulations in offshore waters, especially in water depths less than 800 meters, of the Gulf of Mexico;

(4) compare existing Federal and State policies with tax and royalty regimes in other countries with particular emphasis on similar geological, developmental and infrastructure conditions; and

(5) evaluate how alternative tax and royalty policies, including counter-cyclical measures, could increase recovery of domestic oil and natural gas resources and revenues to Federal, State, local and tribal governments.

(c) POLICY RECOMMENDATIONS.—Based upon the findings of the evaluation under subsection (a), a report describing the findings and recommendations for policy changes shall be provided to the President, the Congress, the Governors of the member States of the Interstate Oil and Gas Compact Commission, and Indian tribes having an oil and gas lease approved by the Secretary of the Interior. The recommendations should ensure that the public interest in receiving the economic benefits of tax and royalty revenues is balanced with the broader national security and economic interests in maximizing recovery of domestic resources. The report should include recommendations regarding actions to—

(1) ensure stable development drilling during periods of low oil and/or natural gas prices to maintain reserve replacement and deliverability;

(2) minimize the negative impact of a volatile investment climate on the oil and gas service industry and domestic oil and gas exploration and production;

(3) ensure a consistent level of domestic activity to encourage the education and retention of a technical workforce; and

(4) maintain production capability during periods of low oil and/or natural gas prices.

(d) ROYALTY GUIDELINES.—The recommendations required under (c) should include guidelines for private resource holders as to the appropriate level of royalties given geology, development cost, and the national interest in maximizing recovery of oil and gas resources.

(e) REPORT.—The study under subsection (a) shall be completed not later than 18 months after the date of enactment of this section. The report and recommendations required in (c) shall be transmitted to the President, the Congress, Indian tribes, and the Governors of the member States of the Interstate Oil and Gas Compact Commission.

SEC. 609. STRATEGIC PETROLEUM RESERVE.

(a) FULL CAPACITY.—The President shall—

(1) fill the Strategic Petroleum Reserve established pursuant to part B of title I of the Energy Policy and Conservation Act (42 U.S.C. 6231 et seq.) to full capacity as soon as practicable;

(2) acquire petroleum for the Strategic Petroleum Reserve by the most practicable and cost-effective means, including the acquisition of crude oil the United States is entitled to receive in kind as royalties from production on Federal lands; and

(3) ensure that the fill rate minimizes impacts on petroleum markets.

(b) RECOMMENDATIONS.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to Congress a plan to—

(1) eliminate any infrastructure impediments that may limit maximum drawdown capability; and

(2) determine whether the capacity of the Strategic Petroleum Reserve on the date of enactment of this section is adequate in light of the increasing consumption of petroleum and the reliance on imported petroleum.

SEC. 610. HYDRAULIC FRACTURING.

Section 1421 of the Safe Drinking Water Act (42 U.S.C. 300h) is amended by adding at the end the following:

"(e) HYDRAULIC FRACTURING FOR OIL AND GAS PRODUCTION.—

"(1) STUDY OF THE EFFECTS OF HYDRAULIC FRACTURING.—

"(A) IN GENERAL.—As soon as practicable, but in no event later than 24 months after the date of enactment of this subsection, the Administrator shall complete a study of the known and potential effects on underground drinking water sources of hydraulic fracturing, including the effects of hydraulic fracturing on underground drinking water sources on a nationwide basis, and within specific regions, States, or portions of States.

"(B) CONSULTATION.—In planning and conducting the study, the Administrator shall consult with the Secretary of the Interior, the Secretary of Energy, the Ground Water Protection Council, affected States, and, as appropriate, representatives of environmental, industry, academic, scientific, public health, and other relevant organizations. Such study may be accomplished in conjunction with other ongoing studies related to the effects of oil and gas production on groundwater resources.

"(C) STUDY ELEMENTS.—The study conducted under subparagraph (A) shall, at a minimum, examine and make findings as to whether—

"(i) such hydraulic fracturing has endangered or will endanger (as defined under subsection (d)(2)) underground drinking water sources, including those sources within specific regions, States or portions of States;

"(ii) there are specific methods, practices, or hydrogeologic circumstances in which hydraulic fracturing has endangered or will endanger underground drinking water sources; and

"(iii) there are any precautionary actions that may reduce or eliminate any such endangerment.

"(D) STUDY OF HYDRAULIC FRACTURING IN A PARTICULAR TYPE OF GEOLOGIC FORMATION.—The Administrator may also complete a separate study on the known and potential effects on underground drinking water sources of hydraulic fracturing in a particular type of geologic formation:

"(i) If such a study is undertaken, the Administrator shall follow the procedures for study preparation and independent scientific review set forth in subparagraphs (1)

(B) and (C) and (2) of this subsection. The Administrator may complete this separate study prior to the completion of the broader study of hydraulic fracturing required pursuant to subparagraph (A) of this subsection.

"(ii) At the conclusion of independent scientific review for any separate study, the Administrator shall determine, pursuant to paragraph (3), whether regulation of hydraulic fracturing in the particular type of geologic formation addressed in the separate study is necessary under this part to ensure that underground sources of drinking water will not be endangered on a nationwide basis, or within a specific region, State or portions of a State. Subparagraph (4) of this subsection shall apply to any such determination by the Administrator.

"(iii) If the Administrator completes a separate study, the Administrator may use the information gathered in the course of such a study in undertaking her broad study to the extent appropriate. The broader study need not include a reexamination of

the conclusions reached by the Administrator in any separate study.

"(2) INDEPENDENT SCIENTIFIC REVIEW.—

"(A) IN GENERAL.—Prior to the time the study under paragraph (1) is completed, the Administrator shall enter into an appropriate agreement with the National Academy of Sciences to have the Academy review the conclusions of the study.

"(B) REPORT.—Not later than 11 months after entering into an appropriate agreement with the Administrator, the National Academy of Sciences shall report to the Administrator, the Committee on Energy and Commerce of the House of Representatives, and the Committee on Environment and Public Works of the Senate, on the—

"(i) findings related to the study conducted by the Administrator under paragraph (1);

"(ii) the scientific and technical basis for such findings; and

"(iii) recommendations, if any, for modifying the findings of the study.

"(3) REGULATORY DETERMINATION.—

"(A) IN GENERAL.—Not later than 6 months after receiving the National Academy of Sciences report under paragraph (2), the Administrator shall determine, after informal public hearings and public notice and opportunity for comment, and based on information developed or accumulated in connection with the study required under paragraph (1) and the National Academy of Sciences report under paragraph (2), either—

"(i) that regulation of hydraulic fracturing under this part is necessary to ensure that underground sources of drinking water will not be endangered on a nationwide basis, or within a specific region, State or portions of a State; or

"(ii) that regulation described under clause (i) is unnecessary.

"(B) PUBLICATION OF DETERMINATION.—The Administrator shall publish the determination in the Federal Register, accompanied by an explanation and the reasons for it.

"(4) PROMULGATION OF REGULATIONS.—

"(A) REGULATION NECESSARY.—If the Administrator determines under paragraph (3) that

regulation by hydraulic fracturing under this part is necessary to ensure that hydraulic fracturing does not endanger underground drinking water sources on a nationwide basis, or within a specific region, State or portions of a State, the Administrator shall, within 6 months after the issuance of that determination, and after public notice and opportunity for comment, promulgate regulations under section 1421 (42 U.S.C. 300h) to ensure that hydraulic fracturing will not endanger such underground sources of drinking water. However, for purposes of the Administrator's approval or disapproval under section 1422 of any State underground injection control program for regulating hydraulic fracturing, a State at any time may make the alternative demonstration provided for in section 1425 of this title.

"(B) REGULATION UNNECESSARY.—The Administrator shall not regulate or require States to regulate hydraulic fracturing under this part unless the Administrator determines under paragraph (3) that such regulation is necessary. This provision shall not apply to any State which has a program for the regulation of hydraulic frac-

turing that was approved by the Administrator under this part prior to the effective date of this subsection.

"(C) EXISTING REGULATIONS.—A determination by the Administrator under paragraph (3) that regulation is unnecessary will relieve all States (including those with existing approved programs for the regulation of hydraulic fracturing) from any further obligation to regulate hydraulic fracturing as an underground injection under this part.

"(5) DEFINITION OF HYDRAULIC FRACTURING.—For purposes of this subsection, the term 'hydraulic fracturing' means the process of creating a fracture in a reservoir rock, and injecting fluids and propping agents, for the purposes of reservoir stimulation related to oil and gas production activities.

"(6) SAVINGS.—Nothing in this subsection shall in any way limit the authorities of the Administrator under section 1431 (42 U.S.C. 300i).".

SEC. 611. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Administrator of the Environmental Protection Agency $100,000 for fiscal year 2003, to remain available until expended, for a grant to the State of Alabama to assist in the imple-

mentation of its regulatory program under section 1425 of the Safe Drinking Water Act.

SEC. 612. PRESERVATION OF OIL AND GAS RESOURCE DATA.

The Secretary of the Interior, through the United States Geological Survey, may enter into appropriate arrangements with State agencies that conduct geological survey activities to collect, archive, and provide public access to data and study results regarding oil and natural gas resources. The Secretary may accept private contributions of property and services for purposes of this section.

SEC 613. RESOLUTION OF FEDERAL RESOURCE DEVELOPMENT CONFLICTS IN THE POWDER RIVER BASIN.

The Secretary of the Interior shall undertake a review of existing authorities to resolve conflicts between the development of Federal coal and the development of Federal and non-Federal coalbed methane in the Powder River Basin in Wyoming and Montana. Not later than 90 days from enactment of this Act, the Secretary shall report to Congress on her plan to resolve these conflicts.

TITLE VII—NATURAL GAS PIPELINES

Subtitle A—Alaska Natural Gas Pipeline

SEC. 701. SHORT TITLE.

This subtitle may be cited as the "Alaska Natural Gas Pipeline Act of 2002".

SEC. 702. FINDINGS.

The Congress finds that:

(1) Construction of a natural gas pipeline system from the Alaskan North Slope to United States markets is in the national interest and will enhance national energy security by providing access to the significant gas reserves in Alaska needed to meet the anticipated demand for natural gas.

(2) The Commission issued a conditional certificate of public convenience and necessity for the Alaska Natural Gas Transportation System, which remains in effect.

SEC. 703. PURPOSES.

The purposes of this subtitle are—

(1) to provide a statutory framework for the expedited approval, construction, and initial operation of an Alaska natural gas transportation project, as an alternative to the framework provided in the Alas-

ka Natural Gas Transportation Act of 1976 (15 U.S.C. 719–719o), which remains in effect;

(2) to establish a process for providing access to such transportation project in order to promote competition in the exploration, development and production of Alaska natural gas;

(3) to clarify Federal authorities under the Alaska Natural Gas Transportation Act; and

(4) to authorize Federal financial assistance to an Alaska natural gas transportation project as provided in this subtitle.

SEC. 704. ISSUANCE OF CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY.

(a) AUTHORITY OF THE COMMISSION.—Notwithstanding the provisions of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719–719o), the Commission may, pursuant to section 7(c) of the Natural Gas Act (15 U.S.C. 717f(c)), consider and act on an application for the issuance of a certificate of public convenience and necessity authorizing the construction and operation of an Alaska natural gas transportation project other than the Alaska Natural Gas Transportation System.

(b) ISSUANCE OF CERTIFICATE.—(1) The Commission shall issue a certificate of public convenience and necessity authorizing the construction and operation of an Alaska

natural gas transportation project under this section if the applicant has satisfied the requirements of section 7(e) of the Natural Gas Act (15 U.S.C. 717f(e)).

(2) In considering an application under this section, the Commission shall presume that—

(A) a public need exists to construct and operate the proposed Alaska natural gas transportation project; and

(B) sufficient downstream capacity will exist to transport the Alaska natural gas moving through such project to markets in the contiguous United States.

(c) EXPEDITED APPROVAL PROCESS.—The Commission shall issue a final order granting or denying any application for a certificate of public convenience and necessity under section 7(c) of the Natural Gas Act (15 U.S.C. 717f(c)) and this section not more than 60 days after the issuance of the final environmental impact statement for that project pursuant to section 705.

(d) PROHIBITION ON CERTAIN PIPELINE ROUTE.—No license, permit, lease, right-of-way, authorization or other approval required under Federal law for the construction of any pipeline to transport natural gas from lands within the Prudhoe Bay oil and gas lease area may be granted for any pipeline that follows a route that traverses—

(1) the submerged lands (as defined by the Submerged Lands Act) beneath, or the adjacent shoreline of, the Beaufort Sea; and

(2) enters Canada at any point north of 68 degrees North latitude.

(e) OPEN SEASON.—Except where an expansion is ordered pursuant to section 706, initial or expansion capacity on any Alaska natural gas transportation project shall be allocated in accordance with procedures to be established by the Commission in regulations governing the conduct of open seasons for such project. Such procedures shall include the criteria for and timing of any open seasons, be consistent with the purposes set forth in section 703(2) and, for any open season for capacity beyond the initial capacity, provide the opportunity for the transportation of natural gas other than from the Prudhoe Bay and Point Thompson units. The Commission shall issue such regulations no later than 120 days after the enactment of this subtitle.

(f) PROJECTS IN THE CONTIGUOUS UNITED STATES.—Applications for additional or expanded pipeline facilities that may be required to transport Alaska natural gas from Canada to markets in the contiguous United States may be made pursuant to the Natural Gas Act. To the extent such pipeline facilities include the expansion of any facility

constructed pursuant to the Alaska Natural Gas Transportation Act of 1976, the provisions of that Act shall continue to apply.

(g) STUDY OF IN-STATE NEEDS.—The holder of the certificate of public convenience and necessity issued, modified, or amended by the Commission for an Alaska natural gas transportation project shall demonstrate that it has conducted a study of Alaska in-State needs, including tie-in points along the Alaska natural gas transportation project for in-State access.

(h) ALASKA ROYALTY GAS.—The Commission, upon the request of the State of Alaska and after a hearing, may provide for reasonable access to the Alaska natural gas transportation project for the State of Alaska or its designee for the transportation of the State's royalty gas for local consumption needs within the State: Provided, That the rates of existing shippers of subscribed capacity on such project shall not be increased as a result of such access.

(i) REGULATIONS.—The Commission may issue regulations to carry out the provisions of this section.

SEC. 705. ENVIRONMENTAL REVIEWS.

(a) COMPLIANCE WITH NEPA.—The issuance of a certificate of public convenience and necessity authorizing the construction and operation of any Alaska natural gas transportation project under section 704 shall be treated as

a major Federal action significantly affecting the quality of the human environment within the meaning of section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)).

(b) DESIGNATION OF LEAD AGENCY.—The Commission shall be the lead agency for purposes of complying with the National Environmental Policy Act of 1969, and shall be responsible for preparing the statement required by section 102(2)(c) of that Act (42 U.S.C. 4332(2)(c)) with respect to an Alaska natural gas transportation project under section 704. The Commission shall prepare a single environmental statement under this section, which shall consolidate the environmental reviews of all Federal agencies considering any aspect of the project.

(c) OTHER AGENCIES.—All Federal agencies considering aspects of the construction and operation of an Alaska natural gas transportation project under section 704 shall cooperate with the Commission, and shall comply with deadlines established by the Commission in the preparation of the statement under this section. The statement prepared under this section shall be used by all such agencies to satisfy their responsibilities under section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) with respect to such project.

(d) EXPEDITED PROCESS.—The Commission shall issue a draft statement under this section not later than 12 months after the Commission determines the application to be complete and shall issue the final statement not later than 6 months after the Commission issues the draft statement, unless the Commission for good cause finds that additional time is needed.

SEC. 706. PIPELINE EXPANSION.

(a) AUTHORITY.—With respect to any Alaska natural gas transportation project, upon the request of one or more persons and after giving notice and an opportunity for a hearing, the Commission may order the expansion of such project if it determines that such expansion is required by the present and future public convenience and necessity.

(b) REQUIREMENTS.—Before ordering an expansion the Commission shall—

(1) approve or establish rates for the expansion service that are designed to ensure the recovery, on an incremental or rolled-in basis, of the cost associated with the expansion (including a reasonable rate of return on investment);

(2) ensure that the rates as established do not require existing shippers on the Alaska natural gas transportation project to subsidize expansion shippers;

(3) find that the proposed shipper will comply with, and the proposed expansion and the expansion of service will be undertaken and implemented based on, terms and conditions consistent with the then-effective tariff of the Alaska natural gas transportation project;

(4) find that the proposed facilities will not adversely affect the financial or economic viability of the Alaska natural gas transportation project;

(5) find that the proposed facilities will not adversely affect the overall operations of the Alaska natural gas transportation project;

(6) find that the proposed facilities will not diminish the contract rights of existing shippers to previously subscribed certificated capacity;

(7) ensure that all necessary environmental reviews have been completed; and

(8) find that adequate downstream facilities exist or are expected to exist to deliver incremental Alaska natural gas to market.

(c) REQUIREMENT FOR A FIRM TRANSPORTATION AGREEMENT.—Any order of the Commission issued pursuant to this section shall be null and void unless the person or persons requesting the order executes a firm transportation agreement with the Alaska natural gas transpor-

tation project within a reasonable period of time as specified in such order.

(d) LIMITATION.—Nothing in this section shall be construed to expand or otherwise affect any authorities of the Commission with respect to any natural gas pipeline located outside the State of Alaska.

(e) REGULATIONS.—The Commission may issue regulations to carry out the provisions of this section.

SEC. 707. FEDERAL COORDINATOR.

(a) ESTABLISHMENT.—There is established as an independent establishment in the executive branch, the Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects.

(b) THE FEDERAL COORDINATOR.—The Office shall be headed by a Federal Coordinator for Alaska Natural Gas Transportation Projects, who shall—

(1) be appointed by the President, by and with the advice of the Senate,

(2) hold office at the pleasure of the President, and

(3) be compensated at the rate prescribed for level III of the Executive Schedule (5 U.S.C. 5314).

(c) DUTIES.—The Federal Coordinator shall be responsible for—

(1) coordinating the expeditious discharge of all activities by Federal agencies with respect to an Alaska natural gas transportation project; and

(2) ensuring the compliance of Federal agencies with the provisions of this subtitle.

(d) REVIEWS AND ACTIONS OF OTHER FEDERAL AGENCIES.—(1) All reviews conducted and actions taken by any Federal officer or agency relating to an Alaska natural gas transportation project authorized under this section shall be expedited, in a manner consistent with completion of the necessary reviews and approvals by the deadlines set forth in this subtitle.

(2) No Federal officer or agency shall have the authority to include terms and conditions that are permitted, but not required, by law on any certificate, right-of-way, permit, lease or other authorization issued to an Alaska natural gas transportation project if the Federal Coordinator determines that the terms and conditions would prevent or impair in any significant respect the expeditious construction and operation of the project.

(3) Unless required by law, no Federal officer or agency shall add to, amend, or abrogate any certificate, right-of-way, permit, lease or other authorization issued to an Alaska natural gas transportation project if the Federal Coordinator determines that such action would prevent or im-

pair in any significant respect the expeditious construction and operation of the project.

(e) STATE COORDINATION.—The Federal Coordinator shall enter into a Joint Surveillance and Monitoring Agreement, approved by the President and the Governor of Alaska, with the State of Alaska similar to that in effect during construction of the Trans-Alaska Oil Pipeline to monitor the construction of the Alaska natural gas transportation project. The Federal Government shall have primary surveillance and monitoring responsibility where the Alaska natural gas transportation project crosses Federal lands and private lands, and the State government shall have primary surveillance and monitoring responsibility where the Alaska natural gas transportation project crosses State lands.

SEC. 708. JUDICIAL REVIEW.

(a) EXCLUSIVE JURISDICTION.—The United States Court of Appeals for the District of Columbia Circuit shall have exclusive jurisdiction to determine—

(1) the validity of any final order or action (including a failure to act) of any Federal agency or officer under this subtitle;

(2) the constitutionality of any provision of this subtitle, or any decision made or action taken thereunder; or

(3) the adequacy of any environmental impact statement prepared under the National Environmental Policy Act of 1969 with respect to any action under this subtitle.

(b) DEADLINE FOR FILING CLAIM.—Claims arising under this subtitle may be brought not later than 60 days after the date of the decision or action giving rise to the claim.

(c) EXPEDITED CONSIDERATION.—The United States Court of Appeals for the District of Columbia Circuit shall set any action brought under subsection (a) of this section for expedited consideration, taking into account the national interest as described in section 702 of this subtitle.

(d) AMENDMENT TO ANGTA.—Section 10(c) of the Alaska Gas Transportation Act of 1976 (15 U.S.C. 719h) is amended by adding the following paragraph:

"(2) EXPEDITED CONSIDERATION.—The United States Court of Appeals for the District of Columbia Circuit shall set any action brought under subsection (a) of this section for expedited consideration, taking into account the national interest described in section 2 of this Act.".

SEC. 709. STATE JURISDICTION OVER IN-STATE DELIVERY OF NATURAL GAS.

(a) LOCAL DISTRIBUTION.—Any facility receiving natural gas from the Alaska natural gas transportation project for delivery to consumers within the State of Alaska shall be deemed to be a local distribution facility within the meaning of section 1(b) of the Natural Gas Act (15 U.S.C. 717), and therefore not subject to the jurisdiction of the Federal Energy Regulatory Commission.

(b) ADDITIONAL PIPELINES.—Nothing in this subtitle, except as provided in subsection 704(d), shall preclude or affect a future gas pipeline that may be constructed to deliver natural gas to Fairbanks, Anchorage, Matanuska-Susitna Valley, or the Kenai peninsula or Valdez or any other site in the State of Alaska for consumption within or distribution outside the State of Alaska.

(c) RATE COORDINATION.—Pursuant to the Natural Gas Act, the Commission shall establish rates for the transportation of natural gas on the Alaska natural gas transportation project. In exercising such authority, the Commission, pursuant to Section 17(b) of the Natural Gas Act (15 U.S.C. 717p), shall confer with the State of Alaska regarding rates (including rate settlements) applicable to natural gas transported on and delivered from the Alaska natural gas transportation project for use within the State of Alaska.

SEC. 710. LOAN GUARANTEE.

(a) AUTHORITY.—The Secretary of Energy may guarantee not more than 80 percent of the principal of any loan made to the holder of a certificate of public convenience and necessity issued under section 704(b) of this Act or section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) for the purpose of constructing an Alaska natural gas transportation project.

(b) CONDITIONS.—(1) The Secretary of Energy may not guarantee a loan under this section unless the guarantee has filed an application for a certificate of public convenience and necessity under section 704(b) of this Act or for an amended certificate under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) with the Commission not later than 18 months after the date of enactment of this subtitle.

(2) A loan guaranteed under this section shall be made by a financial institution subject to the examination of the Secretary.

(3) Loan requirements, including term, maximum size, collateral requirements and other features shall be determined by the Secretary.

(c) LIMITATION ON AMOUNT.—Commitments to guarantee loans may be made by the Secretary of Energy only to the extent that the total loan principal, any part of which is guaranteed, will not exceed $10,000,000,000.

(d) REGULATIONS.—The Secretary of Energy may issue regulations to carry out the provisions of this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to cover the cost of loan guarantees, as defined by section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)).

SEC. 711. STUDY OF ALTERNATIVE MEANS OF CONSTRUCTION.

(a) REQUIREMENT OF STUDY.—If no application for the issuance of a certificate or amended certificate of public convenience and necessity authorizing the construction and operation of an Alaska natural gas transportation project has been filed with the Commission within 18 months after the date of enactment of this title, the Secretary of Energy shall conduct a study of alternative approaches to the construction and operation of the project.

(b) SCOPE OF STUDY.—The study shall consider the feasibility of establishing a Government corporation to construct an Alaska natural gas transportation project, and alternative means of providing Federal financing and ownership (including alternative combinations of Government and private corporate ownership) of the project.

(c) CONSULTATION.—In conducting the study, the Secretary of Energy shall consult with the Secretary of the

Treasury and the Secretary of the Army (acting through the Commanding General of the Corps of Engineers).

(d) REPORT.—If the Secretary of Energy is required to conduct a study under subsection (a), he shall submit a report containing the results of the study, his recommendations, and any proposals for legislation to implement his recommendations to the Congress within 6 months after the expiration of the Secretary of Energy's authority to guarantee a loan under section 710.

SEC. 712. CLARIFICATION OF ANGTA STATUS AND AUTHORITIES.

(a) SAVINGS CLAUSE.—Nothing in this subtitle affects any decision, certificate, permit, right-of-way, lease, or other authorization issued under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) or any Presidential findings or waivers issued in accordance with that Act.

(b) CLARIFICATION OF AUTHORITY TO AMEND TERMS AND CONDITIONS TO MEET CURRENT PROJECT REQUIREMENTS.—Any Federal officer or agency responsible for granting or issuing any certificate, permit, right-of-way, lease, or other authorization under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) may add to, amend, or abrogate any term or condition included in such certificate, permit, right-of-way, lease, or

other authorization to meet current project requirements (including the physical design, facilities, and tariff specifications), so long as such action does not compel a change in the basic nature and general route of the Alaska Natural Gas Transportation System as designated and described in section 2 of the President's Decision, or would otherwise prevent or impair in any significant respect the expeditious construction and initial operation of such transportation system.

(c) UPDATED ENVIRONMENTAL REVIEWS.—The Secretary of Energy shall require the sponsor of the Alaska Natural Gas Transportation System to submit such updated environmental data, reports, permits, and impact analyses as the Secretary determines are necessary to develop detailed terms, conditions, and compliance plans required by section 5 of the President's Decision.

SEC. 713. DEFINITIONS.

For purposes of this subtitle:

(1) The term "Alaska natural gas" means natural gas derived from the area of the State of Alaska lying north of 64 degrees North latitude.

(2) The term "Alaska natural gas transportation project" means any natural gas pipeline system that carries Alaska natural gas to the border between Alaska and Canada (including related facilities subject to

the jurisdiction of the Commission) that is authorized under either—

(A) the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719–719o); or

(B) section 704 of this subtitle.

(3) The term "Alaska Natural Gas Transportation System" means the Alaska natural gas transportation project authorized under the Alaska Natural Gas Transportation Act of 1976 and designated and described in section 2 of the President's Decision.

(4) The term "Commission" means the Federal Energy Regulatory Commission.

(5) The term "President's Decision" means the Decision and Report to Congress on the Alaska Natural Gas Transportation system issued by the President on September 22, 1977 pursuant to section 7 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719c) and approved by Public Law 95–158.

SEC. 714. SENSE OF THE SENATE.

It is the sense of the Senate that an Alaska natural gas transportation project will provide significant economic benefits to the United States and Canada. In order to maximize those benefits, the Senate urges the sponsors of the pipeline project to make every effort to use steel that is man-

ufactured or produced in North America and to negotiate a project labor agreement to expedite construction of the pipeline.

SEC. 715. ALASKAN PIPELINE CONSTRUCTION TRAINING PROGRAM.

(a) Within six months after enactment of this Act, the Secretary of Labor (in this section referred to as the "Secretary") shall submit a report to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Resources of the United States House of Representatives setting forth a program to train Alaska residents in the skills and crafts required in the design, construction, and operation of an Alaska gas pipeline system and that will enhance employment and contracting opportunities for Alaskan residents. The report shall also describe any laws, rules, regulations and policies which act as a deterrent to hiring Alaskan residents or contracting with Alaskan residents to perform work on Alaska gas pipelines, together with any recommendations for change. For purposes of this subsection, Alaskan residents shall be defined as those individuals eligible to vote within the State of Alaska on the date of enactment of this Act.

(b) Within 1 year of the date the report is transmitted to Congress, the Secretary shall establish within the State of Alaska, at such locations as are appropriate, one or more

training centers for the express purpose of training Alaskan residents in the skills and crafts necessary in the design, construction and operation of gas pipelines in Alaska. Each such training center shall also train Alaskan residents in the skills required to write, offer, and monitor contracts in support of the design, construction, and operation of Alaska gas pipelines.

(c) In implementing the report and program described in this subsection, the Secretary shall consult with the Alaskan Governor.

(d) There are authorized to be appropriated to the Secretary such sums as may be necessary, but not to exceed $20,000,000 for the purposes of this subsection.

Subtitle B—Operating Pipelines

SEC. 721. ENVIRONMENTAL REVIEW AND PERMITTING OF NATURAL GAS PIPELINE PROJECTS.

(a) INTERAGENCY REVIEW.—The Chairman of the Council on Environmental Quality, in coordination with the Federal Energy Regulatory Commission, shall establish an interagency task force to develop an interagency memorandum of understanding to expedite the environmental review and permitting of natural gas pipeline projects.

(b) MEMBERSHIP OF INTERAGENCY TASK FORCE.—The task force shall consist of—

(1) the Chairman of the Council on Environmental Quality, who shall serve as the Chairman of the interagency task force,

(2) the Chairman of the Federal Energy Regulatory Commission,

(3) the Director of the Bureau of Land Management,

(4) the Director of the United States Fish and Wildlife Service,

(5) the Commanding General, United States Army Corps of Engineers,

(6) the Chief of the Forest Service,

(7) the Administrator of the Environmental Protection Agency,

(8) the Chairman of the Advisory Council on Historic Preservation, and

(9) the heads of such other agencies as the Chairman of the Council on Environmental Quality and the Chairman of the Federal Energy Regulatory Commission deem appropriate.

(c) MEMORANDUM OF UNDERSTANDING.—The agencies represented by the members of the interagency task force shall enter into the memorandum of understanding not later than 1 year after the date of the enactment of this section.

Subtitle C—Pipeline Safety

PART I—SHORT TITLE; AMENDMENT OF TITLE 49

SEC. 741. SHORT TITLE; AMENDMENT OF TITLE 49, UNITED STATES CODE.

(a) SHORT TITLE.—This subtitle may be cited as the "Pipeline Safety Improvement Act of 2002".

(b) AMENDMENT OF TITLE 49, UNITED STATES CODE.—Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or a repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of title 49, United States Code.

PART II—PIPELINE SAFETY IMPROVEMENT ACT OF 2002

SEC. 761. IMPLEMENTATION OF INSPECTOR GENERAL RECOMMENDATIONS.

(a) IN GENERAL.—Except as otherwise required by this subtitle, the Secretary shall implement the safety improvement recommendations provided for in the Department of Transportation Inspector General's Report (RT–2000–069).

(b) REPORTS BY THE SECRETARY.—Not later than 90 days after the date of enactment of this Act, and every 90 days thereafter until each of the recommendations referred

to in subsection (a) has been implemented, the Secretary shall transmit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on the specific actions taken to implement such recommendations.

(c) REPORTS BY THE INSPECTOR GENERAL.—The Inspector General shall periodically transmit to the committees referred to in subsection (b) a report assessing the Secretary's progress in implementing the recommendations referred to in subsection (a) and identifying options for the Secretary to consider in accelerating recommendation implementation.

SEC. 762. NTSB SAFETY RECOMMENDATIONS.

(a) IN GENERAL.—The Secretary of Transportation, the Administrator of Research and Special Program Administration, and the Director of the Office of Pipeline Safety shall fully comply with section 1135 of title 49, United States Code, to ensure timely responsiveness to National Transportation Safety Board recommendations about pipeline safety.

(b) PUBLIC AVAILABILITY.—The Secretary, Administrator, or Director, respectively, shall make a copy of each recommendation on pipeline safety and response, as de-

scribed in sections 1135 (a) and (b) of title 49, United States Code, available to the public at reasonable cost.

(c) REPORTS TO CONGRESS.—The Secretary, Administrator, or Director, respectively, shall submit to the Congress by January 1 of each year a report containing each recommendation on pipeline safety made by the Board during the prior year and a copy of the response to each such recommendation.

SEC. 763. QUALIFICATIONS OF PIPELINE PERSONNEL.

(a) QUALIFICATION PLAN.—Each pipeline operator shall make available to the Secretary of Transportation, or, in the case of an intrastate pipeline facility operator, the appropriate State regulatory agency, a plan that is designed to enhance the qualifications of pipeline personnel and to reduce the likelihood of accidents and injuries. The plan shall be made available not more than 6 months after the date of enactment of this Act, and the operator shall revise or update the plan as appropriate.

(b) REQUIREMENTS.—The enhanced qualification plan shall include, at a minimum, criteria to demonstrate the ability of an individual to safely and properly perform tasks identified under section 60102 of title 49, United States Code. The plan shall also provide for training and periodic reexamination of pipeline personnel qualifications and provide for requalification as appropriate. The Sec-

retary, or, in the case of an intrastate pipeline facility operator, the appropriate State regulatory agency, may review and certify the plans to determine if they are sufficient to provide a safe operating environment and shall periodically review the plans to ensure the continuation of a safe operation. The Secretary may establish minimum standards for pipeline personnel training and evaluation, which may include written examination, oral examination, work performance history review, observation during performance on the job, on the job training, simulations, or other forms of assessment.

(c) REPORT TO CONGRESS.—

(1) IN GENERAL.—The Secretary shall submit a report to the Congress evaluating the effectiveness of operator qualification and training efforts, including—

(A) actions taken by inspectors;

(B) recommendations made by inspectors for changes to operator qualification and training programs; and

(C) industry and employee organization responses to those actions and recommendations.

(2) CRITERIA.—The Secretary may establish criteria for use in evaluating and reporting on operator

qualification and training for purposes of this subsection.

(3) DUE DATE.—The Secretary shall submit the report required by paragraph (1) to the Congress 3 years after the date of enactment of this Act.

SEC. 764. PIPELINE INTEGRITY INSPECTION PROGRAM.

Section 60109 is amended by adding at the end the following:

"(c) INTEGRITY MANAGEMENT.—

"(1) GENERAL REQUIREMENT.—The Secretary shall promulgate regulations requiring operators of hazardous liquid pipelines and natural gas transmission pipelines to evaluate the risks to the operator's pipeline facilities in areas identified pursuant to subsection (a)(1), and to adopt and implement a program for integrity management that reduces the risk of an incident in those areas. The regulations shall be issued no later than 1 year after the Secretary has issued standards pursuant to subsections (a) and (b) of this section or by December 31, 2003, whichever is sooner.

"(2) STANDARDS FOR PROGRAM.—In promulgating regulations under this section, the Secretary shall require an operator's integrity management

plan to be based on risk analysis and each plan shall include, at a minimum—

"(A) periodic assessment of the integrity of the pipeline through methods including internal inspection, pressure testing, direct assessment, or other effective methods. The assessment period shall be no less than every 5 years unless the Department of Transportation Inspector General, after consultation with the Secretary determines there is not a sufficient capability or it is deemed unnecessary because of more technically appropriate monitoring or creates undue interruption of necessary supply to fulfill the requirements under this paragraph;

"(B) clearly defined criteria for evaluating the results of the periodic assessment methods carried out under subparagraph (A) and procedures to ensure identified problems are corrected in a timely manner; and

"(C) measures, as appropriate, that prevent and mitigate unintended releases, such as leak detection, integrity evaluation, restrictive flow devices, or other measures.

"(3) CRITERIA FOR PROGRAM STANDARDS.—In deciding how frequently the integrity assessment

methods carried out under paragraph (2)(A) must be conducted, an operator shall take into account the potential for new defects developing or previously identified structural defects caused by construction or installation, the operational characteristics of the pipeline, and leak history. In addition, the Secretary may establish a minimum testing requirement for operators of pipelines to conduct internal inspections.

"(4) STATE ROLE.—A State authority that has an agreement in effect with the Secretary under section 60106 is authorized to review and assess an operator's risk analyses and integrity management plans required under this section for interstate pipelines located in that State. The reviewing State authority shall provide the Secretary with a written assessment of the plans, make recommendations, as appropriate, to address safety concerns not adequately addressed in the operator's plans, and submit documentation explaining the State-proposed plan revisions. The Secretary shall carefully consider the State's proposals and work in consultation with the States and operators to address safety concerns.

"(5) MONITORING IMPLEMENTATION.—The Secretary of Transportation shall review the risk analysis and program for integrity management required

under this section and provide for continued monitoring of such plans. Not later than 2 years after the implementation of integrity management plans under this section, the Secretary shall complete an assessment and evaluation of the effects on safety and the environment of extending all of the requirements mandated by the regulations described in paragraph (1) to additional areas. The Secretary shall submit the assessment and evaluation to Congress along with any recommendations to improve and expand the utilization of integrity management plans.

"(6) OPPORTUNITY FOR LOCAL INPUT ON INTEGRITY MANAGEMENT.—Within 18 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, the Secretary shall, by regulation, establish a process for raising and addressing local safety concerns about pipeline integrity and the operator's pipeline integrity plan. The process shall include—

"(A) a requirement that an operator of a hazardous liquid or natural gas transmission pipeline facility provide information about the risk analysis and integrity management plan required under this section to local officials in a State in which the facility is located;

"(B) a description of the local officials required to be informed, the information that is to be provided to them and the manner, which may include traditional or electronic means, in which it is provided;

"(C) the means for receiving input from the local officials that may include a public forum sponsored by the Secretary or by the State, or the submission of written comments through traditional or electronic means;

"(D) the extent to which an operator of a pipeline facility must participate in a public forum sponsored by the Secretary or in another means for receiving input from the local officials or in the evaluation of that input; and

"(E) the manner in which the Secretary will notify the local officials about how their concerns are being addressed.".

SEC. 765. ENFORCEMENT.

(a) IN GENERAL.—Section 60112 is amended—

(1) by striking subsection (a) and inserting the following:

"(a) GENERAL AUTHORITY.—After notice and an opportunity for a hearing, the Secretary of Transportation

may decide a pipeline facility is hazardous if the Secretary decides that—

"(1) operation of the facility is or would be hazardous to life, property, or the environment; or

"(2) the facility is, or would be, constructed or operated, or a component of the facility is, or would be, constructed or operated with equipment, material, or a technique that the Secretary decides is hazardous to life, property, or the environment."; and

(2) by striking "is hazardous," in subsection (d) and inserting "is, or would be, hazardous,".

SEC. 766. PUBLIC EDUCATION, EMERGENCY PREPAREDNESS, AND COMMUNITY RIGHT-TO-KNOW.

(a) Section 60116 is amended to read as follows:

"§ 60116. Public education, emergency preparedness, and community right-to-know

"(a) PUBLIC EDUCATION PROGRAMS.—(1) Each owner or operator of a gas or hazardous liquid pipeline facility shall carry out a continuing program to educate the public on the use of a one-call notification system prior to excavation and other damage prevention activities, the possible hazards associated with unintended releases from the pipeline facility, the physical indications that such a release may have occurred, what steps should be taken for

public safety in the event of a pipeline release, and how to report such an event.

"(2) Within 12 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, each owner or operator of a gas or hazardous liquid pipeline facility shall review its existing public education program for effectiveness and modify the program as necessary. The completed program shall include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations. The completed program shall be submitted to the Secretary or, in the case of an intrastate pipeline facility operator, the appropriate State agency and shall be periodically reviewed by the Secretary or, in the case of an intrastate pipeline facility operator, the appropriate State agency.

"(3) The Secretary may issue standards prescribing the elements of an effective public education program. The Secretary may also develop material for use in the program.

"(b) EMERGENCY PREPAREDNESS.—

"(1) OPERATOR LIAISON.—Within 12 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, an operator of a gas transmission or hazardous liquid pipeline facility shall initiate and maintain liaison with the State emergency response commissions, and local emergency

planning committees in the areas of pipeline right-of-way, established under section 301 of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11001) in each State in which it operates.

"(2) INFORMATION.—An operator shall, upon request, make available to the State emergency response commissions and local emergency planning committees, and shall make available to the Office of Pipeline Safety in a standardized form for the purpose of providing the information to the public, the information described in section 60102(d), the operator's program for integrity management, and information about implementation of that program. The information about the facility shall also include, at a minimum—

"(A) the business name, address, telephone number of the operator, including a 24-hour emergency contact number;

"(B) a description of the facility, including pipe diameter, the product or products carried, and the operating pressure;

"(C) with respect to transmission pipeline facilities, maps showing the location of the facility and, when available, any high consequence

areas which the pipeline facility traverses or adjoins and abuts;

"(D) a summary description of the integrity measures the operator uses to assure safety and protection for the environment; and

"(E) a point of contact to respond to questions from emergency response representative.

"(3) SMALLER COMMUNITIES.—In a community without a local emergency planning committee, the operator shall maintain liaison with the local fire, police, and other emergency response agencies.

"(4) PUBLIC ACCESS.—The Secretary shall prescribe requirements for public access, as appropriate, to this information, including a requirement that the information be made available to the public by widely accessible computerized database.

"(c) COMMUNITY RIGHT-TO-KNOW.—Not later than 12 months after the date of enactment of the Pipeline Safety Improvement Act of 2002, and annually thereafter, the owner or operator of each gas transmission or hazardous liquid pipeline facility shall provide to the governing body of each municipality in which the pipeline facility is located, a map identifying the location of such facility. The map may be provided in electronic form. The Secretary may provide technical assistance to the pipeline industry

on developing public safety and public education program content and best practices for program delivery, and on evaluating the effectiveness of the programs. The Secretary may also provide technical assistance to State and local officials in applying practices developed in these programs to their activities to promote pipeline safety.

"(d) PUBLIC AVAILABILITY OF REPORTS.—The Secretary shall—

"(1) make available to the public—

"(A) a safety-related condition report filed by an operator under section 60102(h);

"(B) a report of a pipeline incident filed by an operator;

"(C) the results of any inspection by the Office of Pipeline Safety or a State regulatory official; and

"(D) a description of any corrective action taken in response to a safety-related condition reported under subparagraph (A), (B), or (C); and

"(2) prescribe requirements for public access, as appropriate, to integrity management program information prepared under this chapter, including requirements that will ensure data accessibility to the greatest extent feasible.".

(b) SAFETY CONDITION REPORTS.—Section 60102(h)(2) is amended by striking "authorities." and inserting "officials, including the local emergency responders.".

(c) CONFORMING AMENDMENT.—The chapter analysis for chapter 601 is amended by striking the item relating to section 60116 and inserting the following:

"60116. Public education, emergency preparedness, community right-to-know.".

SEC. 767. PENALTIES.

(a) CIVIL PENALTIES.—Section 60122 is amended—

(1) by striking "$25,000" in subsection (a)(1) and inserting "$500,000";

(2) by striking "$500,000" in subsection (a)(1) and inserting "$1,000,000";

(3) by adding at the end of subsection (a)(1) the following: "The preceding sentence does not apply to judicial enforcement action under section 60120 or 60121."; and

(4) by striking subsection (b) and inserting the following:

"(b) PENALTY CONSIDERATIONS.—In determining the amount of a civil penalty under this section—

"(1) the Secretary shall consider—

"(A) the nature, circumstances, and gravity of the violation, including adverse impact on the environment;

"(B) with respect to the violator, the degree of culpability, any history of prior violations, the ability to pay, any effect on ability to continue doing business; and

"(C) good faith in attempting to comply; and

"(2) the Secretary may consider—

"(A) the economic benefit gained from the violation without any discount because of subsequent damages; and

"(B) other matters that justice requires.".

(b) EXCAVATOR DAMAGE.—Section 60123(d) is amended—

(1) by striking "knowingly and willfully";

(2) by inserting "knowingly and willfully" before "engages" in paragraph (1); and

(3) striking paragraph (2)(B) and inserting the following:

"(B) a pipeline facility, is aware of damage, and does not report the damage promptly to the operator of the pipeline facility and to other appropriate authorities; or".

(c) CIVIL ACTIONS.—Section 60120(a)(1) is amended to read as follows:

"(1) On the request of the Secretary of Transportation, the Attorney General may bring a civil action in an appropriate district court of the United States to enforce this chapter, including section 60112 of this chapter, or a regulation prescribed or order issued under this chapter. The court may award appropriate relief, including a temporary or permanent injunction, punitive damages, and assessment of civil penalties considering the same factors as prescribed for the Secretary in an administrative case under section 60122.".

SEC. 768. STATE OVERSIGHT ROLE.

(a) STATE AGREEMENTS WITH CERTIFICATION.—Section 60106 is amended—

(1) by striking "GENERAL AUTHORITY.—" in subsection (a) and inserting "AGREEMENTS WITHOUT CERTIFICATION.—";

(2) by redesignating subsections (b), (c), and (d) as subsections (c), (d), and (e); and

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

"(b) AGREEMENTS WITH CERTIFICATION.—

"(1) IN GENERAL.—If the Secretary accepts a certification under section 60105 of this title and makes the determination required under this subsection, the Secretary may make an agreement with

a State authority authorizing it to participate in the oversight of interstate pipeline transportation. Each such agreement shall include a plan for the State authority to participate in special investigations involving incidents or new construction and allow the State authority to participate in other activities overseeing interstate pipeline transportation or to assume additional inspection or investigatory duties. Nothing in this section modifies section 60104(c) or authorizes the Secretary to delegate the enforcement of safety standards prescribed under this chapter to a State authority.

"(2) DETERMINATIONS REQUIRED.—The Secretary may not enter into an agreement under this subsection, unless the Secretary determines that—

"(A) the agreement allowing participation of the State authority is consistent with the Secretary's program for inspection and consistent with the safety policies and provisions provided under this chapter;

"(B) the interstate participation agreement would not adversely affect the oversight responsibilities of intrastate pipeline transportation by the State authority;

"(C) the State is carrying out a program demonstrated to promote preparedness and risk prevention activities that enable communities to live safely with pipelines;

"(D) the State meets the minimum standards for State one-call notification set forth in chapter 61; and

"(E) the actions planned under the agreement would not impede interstate commerce or jeopardize public safety.

"(3) EXISTING AGREEMENTS.—If requested by the State authority, the Secretary shall authorize a State authority which had an interstate agreement in effect after January 1999, to oversee interstate pipeline transportation pursuant to the terms of that agreement until the Secretary determines that the State meets the requirements of paragraph (2) and executes a new agreement, or until December 31, 2003, whichever is sooner. Nothing in this paragraph shall prevent the Secretary, after affording the State notice, hearing, and an opportunity to correct any alleged deficiencies, from terminating an agreement that was in effect before enactment of the Pipeline Safety Improvement Act of 2002 if—

"(A) the State authority fails to comply with the terms of the agreement;

"(B) implementation of the agreement has resulted in a gap in the oversight responsibilities of intrastate pipeline transportation by the State authority; or

"(C) continued participation by the State authority in the oversight of interstate pipeline transportation has had an adverse impact on pipeline safety.".

(b) ENDING AGREEMENTS.—Subsection (e) of section 60106, as redesignated by subsection (a), is amended to read as follows:

"(e) ENDING AGREEMENTS.—

"(1) PERMISSIVE TERMINATION.—The Secretary may end an agreement under this section when the Secretary finds that the State authority has not complied with any provision of the agreement.

"(2) MANDATORY TERMINATION OF AGREEMENT.—The Secretary shall end an agreement for the oversight of interstate pipeline transportation if the Secretary finds that—

"(A) implementation of such agreement has resulted in a gap in the oversight responsibilities

of intrastate pipeline transportation by the State authority;

"(B) the State actions under the agreement have failed to meet the requirements under subsection (b); or

"(C) continued participation by the State authority in the oversight of interstate pipeline transportation would not promote pipeline safety.

"(3) PROCEDURAL REQUIREMENTS.—The Secretary shall give the notice and an opportunity for a hearing to a State authority before ending an agreement under this section. The Secretary may provide a State an opportunity to correct any deficiencies before ending an agreement. The finding and decision to end the agreement shall be published in the Federal Register and may not become effective for at least 15 days after the date of publication unless the Secretary finds that continuation of an agreement poses an imminent hazard.".

SEC. 769. IMPROVED DATA AND DATA AVAILABILITY.

(a) IN GENERAL.—Within 12 months after the date of enactment of this Act, the Secretary shall develop and implement a comprehensive plan for the collection and use of gas and hazardous liquid pipeline data to revise the caus-

al categories on the incident report forms to eliminate overlapping and confusing categories and include subcategories. The plan shall include components to provide the capability to perform sound incident trend analysis and evaluations of pipeline operator performance using normalized accident data.

(b) REPORT OF RELEASES EXCEEDING 5 GALLONS.—Section 60117(b) is amended—

(1) by inserting "(1)" before "To";

(2) redesignating paragraphs (1) and (2) as subparagraphs (A) and (B);

(3) inserting before the last sentence the following:

"(2) A person owning or operating a hazardous liquid pipeline facility shall report to the Secretary each release to the environment greater than 5 gallons of the hazardous liquid or carbon dioxide transported. This section applies to releases from pipeline facilities regulated under this chapter. A report must include the location of the release, fatalities and personal injuries, type of product, amount of product release, cause or causes of the release, extent of damage to property and the environment, and the response undertaken to clean up the release.

"(3) During the course of an incident investigation, a person owning or operating a pipeline facility shall make

records, reports, and information required under subsection (a) of this section or other reasonably described records, reports, and information relevant to the incident investigation, available to the Secretary within the time limits prescribed in a written request.''; and

(4) indenting the first word of the last sentence and inserting ''(4)'' before ''The Secretary'' in that sentence.

(c) PENALTY AUTHORITIES.—(1) Section 60122(a) is amended by striking ''60114(c)'' and inserting ''60117(b)(3)''.

(2) Section 60123(a) is amended by striking ''60114(c),'' and inserting ''60117(b)(3),''.

(d) ESTABLISHMENT OF NATIONAL DEPOSITORY.—Section 60117 is amended by adding at the end the following:

''(l) NATIONAL DEPOSITORY.—The Secretary shall establish a national depository of data on events and conditions, including spill histories and corrective actions for specific incidents, that can be used to evaluate the risk of, and to prevent, pipeline failures and releases. The Secretary shall administer the program through the Bureau of Transportation Statistics, in cooperation with the Research and Special Programs Administration, and shall make such in-

formation available for use by State and local planning and emergency response authorities and the public.''.

SEC. 770. RESEARCH AND DEVELOPMENT.

(a) INNOVATIVE TECHNOLOGY DEVELOPMENT.—

(1) IN GENERAL.—As part of the Department of Transportation's research and development program, the Secretary of Transportation shall direct research attention to the development of alternative technologies—

(A) to expand the capabilities of internal inspection devices to identify and accurately measure defects and anomalies;

(B) to inspect pipelines that cannot accommodate internal inspection devices available on the date of enactment;

(C) to develop innovative techniques measuring the structural integrity of pipelines;

(D) to improve the capability, reliability, and practicality of external leak detection devices; and

(E) to develop and improve alternative technologies to identify and monitor outside force damage to pipelines.

(2) COOPERATIVE.—The Secretary may participate in additional technological development through

cooperative agreements with trade associations, academic institutions, or other qualified organizations.

(b) PIPELINE SAFETY AND RELIABILITY RESEARCH AND DEVELOPMENT.—

(1) IN GENERAL.—The Secretary of Transportation, in coordination with the Secretary of Energy, shall develop and implement an accelerated cooperative program of research and development to ensure the integrity of natural gas and hazardous liquid pipelines. This research and development program—

(A) shall include materials inspection techniques, risk assessment methodology, and information systems surety; and

(B) shall complement, and not replace, the research program of the Department of Energy addressing natural gas pipeline issues existing on the date of enactment of this Act.

(2) PURPOSE.—The purpose of the cooperative research program shall be to promote pipeline safety research and development to—

(A) ensure long-term safety, reliability and service life for existing pipelines;

(B) expand capabilities of internal inspection devices to identify and accurately measure defects and anomalies;

(C) develop inspection techniques for pipelines that cannot accommodate the internal inspection devices available on the date of enactment;

(D) develop innovative techniques to measure the structural integrity of pipelines to prevent pipeline failures;

(E) develop improved materials and coatings for use in pipelines;

(F) improve the capability, reliability, and practicality of external leak detection devices;

(G) identify underground environments that might lead to shortened service life;

(H) enhance safety in pipeline siting and land use;

(I) minimize the environmental impact of pipelines;

(J) demonstrate technologies that improve pipeline safety, reliability, and integrity;

(K) provide risk assessment tools for optimizing risk mitigation strategies; and

(L) provide highly secure information systems for controlling the operation of pipelines.

(3) AREAS.—In carrying out this subsection, the Secretary of Transportation, in coordination with the

Secretary of Energy, shall consider research and development on natural gas, crude oil and petroleum product pipelines for—

(A) early crack, defect, and damage detection, including real-time damage monitoring;

(B) automated internal pipeline inspection sensor systems;

(C) land use guidance and set back management along pipeline rights-of-way for communities;

(D) internal corrosion control;

(E) corrosion-resistant coatings;

(F) improved cathodic protection;

(G) inspection techniques where internal inspection is not feasible, including measurement of structural integrity;

(H) external leak detection, including portable real-time video imaging technology, and the advancement of computerized control center leak detection systems utilizing real-time remote field data input;

(I) longer life, high strength, non-corrosive pipeline materials;

(J) assessing the remaining strength of existing pipes;

(K) risk and reliability analysis models, to be used to identify safety improvements that could be realized in the near term resulting from analysis of data obtained from a pipeline performance tracking initiative;

(L) identification, monitoring, and prevention of outside force damage, including satellite surveillance; and

(M) any other areas necessary to ensuring the public safety and protecting the environment.

(4) POINTS OF CONTACT.—

(A) IN GENERAL.—To coordinate and implement the research and development programs and activities authorized under this subsection—

(i) the Secretary of Transportation shall designate, as the point of contact for the Department of Transportation, an officer of the Department of Transportation who has been appointed by the President and confirmed by the Senate; and

(ii) the Secretary of Energy shall designate, as the point of contact for the Department of Energy, an officer of the Department of Energy who has been appointed

by the President and confirmed by the Senate.

(B) DUTIES.—

(i) The point of contact for the Department of Transportation shall have the primary responsibility for coordinating and overseeing the implementation of the research, development, and demonstration program plan under paragraphs (5) and (6).

(ii) The points of contact shall jointly assist in arranging cooperative agreements for research, development and demonstration involving their respective Departments, national laboratories, universities, and industry research organizations.

(5) RESEARCH AND DEVELOPMENT PROGRAM PLAN.—Within 240 days after the date of enactment of this Act, the Secretary of Transportation, in coordination with the Secretary of Energy and the Pipeline Integrity Technical Advisory Committee, shall prepare and submit to the Congress a 5-year program plan to guide activities under this subsection. In preparing the program plan, the Secretary shall consult with appropriate representatives of the

natural gas, crude oil, and petroleum product pipeline industries to select and prioritize appropriate project proposals. The Secretary may also seek the advice of utilities, manufacturers, institutions of higher learning, Federal agencies, the pipeline research institutions, national laboratories, State pipeline safety officials, environmental organizations, pipeline safety advocates, and professional and technical societies.

(6) IMPLEMENTATION.—The Secretary of Transportation shall have primary responsibility for ensuring the 5-year plan provided for in paragraph (5) is implemented as intended. In carrying out the research, development, and demonstration activities under this paragraph, the Secretary of Transportation and the Secretary of Energy may use, to the extent authorized under applicable provisions of law, contracts, cooperative agreements, cooperative research and development agreements under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.), grants, joint ventures, other transactions, and any other form of agreement available to the Secretary consistent with the recommendations of the Advisory Committee.

(7) REPORTS TO CONGRESS.—The Secretary of Transportation shall report to the Congress annually

as to the status and results to date of the implementation of the research and development program plan. The report shall include the activities of the Departments of Transportation and Energy, the national laboratories, universities, and any other research organizations, including industry research organizations.

SEC. 771. PIPELINE INTEGRITY TECHNICAL ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—The Secretary of Transportation shall enter into appropriate arrangements with the National Academy of Sciences to establish and manage the Pipeline Integrity Technical Advisory Committee for the purpose of advising the Secretary of Transportation and the Secretary of Energy on the development and implementation of the 5-year research, development, and demonstration program plan under section 770(b)(5). The Advisory Committee shall have an ongoing role in evaluating the progress and results of the research, development, and demonstration carried out under that section.

(b) MEMBERSHIP.—The National Academy of Sciences shall appoint the members of the Pipeline Integrity Technical Advisory Committee after consultation with the Secretary of Transportation and the Secretary of Energy. Members appointed to the Advisory Committee should have

the necessary qualifications to provide technical contributions to the purposes of the Advisory Committee.

SEC. 772. AUTHORIZATION OF APPROPRIATIONS.

(a) GAS AND HAZARDOUS LIQUIDS.—Section 60125(a) is amended to read as follows:

"(a) GAS AND HAZARDOUS LIQUID.—To carry out this chapter and other pipeline-related damage prevention activities of this title (except for section 60107), there are authorized to be appropriated to the Department of Transportation—$30,000,000 for each of the fiscal years 2003, 2004, and 2005 of which $23,000,000 is to be derived from user fees for fiscal years 2003, 2004, and 2005 collected under section 60301 of this title.".

(b) GRANTS TO STATES.—Section 60125(c) is amended to read as follows:

"(c) STATE GRANTS.—Not more than the following amounts may be appropriated to the Secretary to carry out section 60107—$20,000,000 for the fiscal years 2003, 2004, and 2005 of which $18,000,000 is to be derived from user fees for fiscal years 2003, 2004, and 2005 collected under section 60301 of this title.".

(c) OIL SPILLS.—Section 60125 is amended by redesignating subsections (d), (e), and (f) as subsections (e), (f), (g) and inserting after subsection (c) the following:

"(d) OIL SPILL LIABILITY TRUST FUND.—Of the amounts available in the Oil Spill Liability Trust Fund, $8,000,000 shall be transferred to the Secretary of Transportation, as provided in appropriation Acts, to carry out programs authorized in this title for each of fiscal years 2003, 2004, and 2005.".

(d) PIPELINE INTEGRITY PROGRAM.—(1) There are authorized to be appropriated to the Secretary of Transportation for carrying out sections 770(b) and 771 of this subtitle $3,000,000, to be derived from user fees under section 60301 of title 49, United States Code, for each of the fiscal years 2003 through 2007.

(2) Of the amounts available in the Oil Spill Liability Trust Fund established by section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509), $3,000,000 shall be transferred to the Secretary of Transportation, as provided in appropriation Acts, to carry out programs for detection, prevention and mitigation of oil spills under sections 770(b) and 771 of this subtitle for each of the fiscal years 2003 through 2007.

(3) There are authorized to be appropriated to the Secretary of Energy for carrying out sections 770(b) and 771 of this subtitle such sums as may be necessary for each of the fiscal years 2003 through 2007.

SEC. 773. OPERATOR ASSISTANCE IN INVESTIGATIONS.

(a) IN GENERAL.—If the Department of Transportation or the National Transportation Safety Board investigate an accident, the operator involved shall make available to the representative of the Department or the Board all records and information that in any way pertain to the accident (including integrity management plans and test results), and shall afford all reasonable assistance in the investigation of the accident.

(b) CORRECTIVE ACTION ORDERS.—Section 60112(d) is amended—

(1) by inserting "(1)" after "CORRECTIVE ACTION ORDERS.—"; and

(2) by adding at the end the following:

"(2) If, in the case of a corrective action order issued following an accident, the Secretary determines that the actions of an employee carrying out an activity regulated under this chapter, including duties under section 60102(a), may have contributed substantially to the cause of the accident, the Secretary shall direct the operator to relieve the employee from performing those activities, reassign the employee, or place the employee on leave until the earlier of the date on which—

"(A) the Secretary determines, after notice and an opportunity for a hearing, that the employee's performance of duty in carrying out the activity did not

contribute substantially to the cause of the accident; or

"(B) the Secretary determines the employee has been re-qualified or re-trained as provided for in section 763 of the Pipeline Safety Improvement Act of 2002 and can safely perform those activities.

"(3) Action taken by an operator under paragraph (2) shall be in accordance with the terms and conditions of any applicable collective bargaining agreement to the extent it is not inconsistent with the requirements of this section.".

SEC. 774. PROTECTION OF EMPLOYEES PROVIDING PIPELINE SAFETY INFORMATION.

(a) IN GENERAL.—Chapter 601 is amended by adding at the end the following:

"§ 60129. Protection of employees providing pipeline safety information

"(a) DISCRIMINATION AGAINST PIPELINE EMPLOYEES.—No pipeline operator or contractor or subcontractor of a pipeline may discharge an employee or otherwise discriminate against an employee with respect to compensation, terms, conditions, or privileges of employment because the employee (or any person acting pursuant to a request of the employee)—

"(1) provided, caused to be provided, or is about to provide (with any knowledge of the employer) or

cause to be provided to the employer or Federal Government information relating to any violation or alleged violation of any order, regulation, or standard of the Research and Special Programs Administration or any other provision of Federal law relating to pipeline safety under this chapter or any other law of the United States;

"(2) has filed, caused to be filed, or is about to file (with any knowledge of the employer) or cause to be filed a proceeding relating to any violation or alleged violation of any order, regulation, or standard of the Administration or any other provision of Federal law relating to pipeline safety under this chapter or any other law of the United States;

"(3) testified or is about to testify in such a proceeding; or

"(4) assisted or participated or is about to assist or participate in such a proceeding.

"(b) DEPARTMENT OF LABOR COMPLAINT PROCEDURE.—

"(1) FILING AND NOTIFICATION.—A person who believes that he or she has been discharged or otherwise discriminated against by any person in violation of subsection (a) may, not later than 90 days after the date on which such violation occurs, file (or

have any person file on his or her behalf) a complaint with the Secretary of Labor alleging such discharge or discrimination. Upon receipt of such a complaint, the Secretary of Labor shall notify, in writing, the person named in the complaint and the Administrator of the Research and Special Programs Administration of the filing of the complaint, of the allegations contained in the complaint, of the substance of evidence supporting the complaint, and of the opportunities that will be afforded to such person under paragraph (2).

"(2) INVESTIGATION; PRELIMINARY ORDER.—

"(A) IN GENERAL.—Not later than 60 days after the date of receipt of a complaint filed under paragraph (1) and after affording the person named in the complaint an opportunity to submit to the Secretary of Labor a written response to the complaint and an opportunity to meet with a representative of the Secretary to present statements from witnesses, the Secretary of Labor shall conduct an investigation and determine whether there is reasonable cause to believe that the complaint has merit and notify in writing the complainant and the person alleged to have committed a violation of subsection (a) of the Secretary's findings. If the Secretary of

Labor concludes that there is reasonable cause to believe that a violation of subsection (a) has occurred, the Secretary shall accompany the Secretary's findings with a preliminary order providing the relief prescribed by paragraph (3)(B). Not later than 30 days after the date of notification of findings under this paragraph, either the person alleged to have committed the violation or the complainant may file objections to the findings or preliminary order, or both, and request a hearing on the record. The filing of such objections shall not operate to stay any reinstatement remedy contained in the preliminary order. Such hearings shall be conducted expeditiously. If a hearing is not requested in such 30-day period, the preliminary order shall be deemed a final order that is not subject to judicial review.

"(B) REQUIREMENTS.—

"(i) REQUIRED SHOWING BY COMPLAINANT.—The Secretary of Labor shall dismiss a complaint filed under this subsection and shall not conduct an investigation otherwise required under subparagraph (A) unless the complainant makes a prima facie showing that any behavior described

in paragraphs (1) through (4) of subsection (a) was a contributing factor in the unfavorable personnel action alleged in the complaint.

"(ii) SHOWING BY EMPLOYER.—Notwithstanding a finding by the Secretary that the complainant has made the showing required under clause (i), no investigation otherwise required under subparagraph (A) shall be conducted if the employer demonstrates, by clear and convincing evidence, that the employer would have taken the same unfavorable personnel action in the absence of that behavior.

"(iii) CRITERIA FOR DETERMINATION BY SECRETARY.—The Secretary may determine that a violation of subsection (a) has occurred only if the complainant demonstrates that any behavior described in paragraphs (1) through (4) of subsection (a) was a contributing factor in the unfavorable personnel action alleged in the complaint.

"(iv) PROHIBITION.—Relief may not be ordered under subparagraph (A) if the employer demonstrates by clear and con-

vincing evidence that the employer would have taken the same unfavorable personnel action in the absence of that behavior.

"(3) FINAL ORDER.—

"(A) DEADLINE FOR ISSUANCE; SETTLEMENT AGREEMENTS.—Not later than 120 days after the date of conclusion of a hearing under paragraph (2), the Secretary of Labor shall issue a final order providing the relief prescribed by this paragraph or denying the complaint. At any time before issuance of a final order, a proceeding under this subsection may be terminated on the basis of a settlement agreement entered into by the Secretary of Labor, the complainant, and the person alleged to have committed the violation.

"(B) REMEDY.—If, in response to a complaint filed under paragraph (1), the Secretary of Labor determines that a violation of subsection (a) has occurred, the Secretary of Labor shall order the person who committed such violation to—

"(i) take affirmative action to abate the violation;

"(ii) reinstate the complainant to his or her former position together with the compensation (including back pay) and restore the terms, conditions, and privileges associated with his or her employment; and

"(iii) provide compensatory damages to the complainant.

If such an order is issued under this paragraph, the Secretary of Labor, at the request of the complainant, shall assess against the person whom the order is issued a sum equal to the aggregate amount of all costs and expenses (including attorney's and expert witness fees) reasonably incurred, as determined by the Secretary of Labor, by the complainant for, or in connection with, the bringing the complaint upon which the order was issued.

"(C) FRIVOLOUS COMPLAINTS.—If the Secretary of Labor finds that a complaint under paragraph (1) is frivolous or has been brought in bad faith, the Secretary of Labor may award to the prevailing employer a reasonable attorney's fee not exceeding $1,000.

"(4) REVIEW.—

"(A) APPEAL TO COURT OF APPEALS.—Any person adversely affected or aggrieved by an order issued under paragraph (3) may obtain review of the order in the United States Court of Appeals for the circuit in which the violation, with respect to which the order was issued, allegedly occurred or the circuit in which the complainant resided on the date of such violation. The petition for review must be filed not later than 60 days after the date of issuance of the final order of the Secretary of Labor. Review shall conform to chapter 7 of title 5, United States Code. The commencement of proceedings under this subparagraph shall not, unless ordered by the court, operate as a stay of the order.

"(B) LIMITATION ON COLLATERAL ATTACK.—An order of the Secretary of Labor with respect to which review could have been obtained under subparagraph (A) shall not be subject to judicial review in any criminal or other civil proceeding.

"(5) ENFORCEMENT OF ORDER BY SECRETARY OF LABOR.—Whenever any person has failed to comply with an order issued under paragraph (3), the Secretary of Labor may file a civil action in the

United States district court for the district in which the violation was found to occur to enforce such order. In actions brought under this paragraph, the district courts shall have jurisdiction to grant all appropriate relief, including, but not to be limited to, injunctive relief and compensatory damages.

"(6) ENFORCEMENT OF ORDER BY PARTIES.—

"(A) COMMENCEMENT OF ACTION.—A person on whose behalf an order was issued under paragraph (3) may commence a civil action against the person to whom such order was issued to require compliance with such order. The appropriate United States district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such order.

"(B) ATTORNEY FEES.—The court, in issuing any final order under this paragraph, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such award costs is appropriate.

"(c) MANDAMUS.—Any nondiscretionary duty imposed by this section shall be enforceable in a mandamus

proceeding brought under section 1361 of title 28, United States Code.

"(d) NONAPPLICABILITY TO DELIBERATE VIOLATIONS.—Subsection (a) shall not apply with respect to an employee of a pipeline, contractor or subcontractor who, acting without direction from the pipeline contractor or subcontractor (or such person's agent), deliberately causes a violation of any requirement relating to pipeline safety under this chapter or any other law of the United States.

"(e) CONTRACTOR DEFINED.—In this section, the term 'contractor' means a company that performs safety-sensitive functions by contract for a pipeline.".

(b) CIVIL PENALTY.—Section 60122(a) is amended by adding at the end the following:

"(3) A person violating section 60129, or an order issued thereunder, is liable to the Government for a civil penalty of not more than $1,000 for each violation. The penalties provided by paragraph (1) do not apply to a violation of section 60129 or an order issued thereunder.".

(c) CONFORMING AMENDMENT.—The chapter analysis for chapter 601 is amended by adding at the end the following:

"60129. Protection of employees providing pipeline safety information.".

SEC. 775. STATE PIPELINE SAFETY ADVISORY COMMITTEES.

Within 90 days after receiving recommendations for improvements to pipeline safety from an advisory com-

mittee appointed by the Governor of any State, the Secretary of Transportation shall respond in writing to the committee setting forth what action, if any, the Secretary will take on those recommendations and the Secretary's reasons for acting or not acting upon any of the recommendations.

SEC. 776. FINES AND PENALTIES.

The Inspector General of the Department of Transportation shall conduct an analysis of the Department's assessment of fines and penalties on gas transmission and hazardous liquid pipelines, including the cost of corrective actions required by the Department in lieu of fines, and, no later than 6 months after the date of enactment of this Act, shall provide a report to the Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure on any findings and recommendations for actions by the Secretary or Congress to ensure the fines assessed are an effective deterrent for reducing safety risks.

SEC. 777. STUDY OF RIGHTS-OF-WAY.

The Secretary of Transportation is authorized to conduct a study on how best to preserve environmental resources in conjunction with maintaining pipeline rights-of-way. The study shall recognize pipeline operators' regu-

latory obligations to maintain rights-of-way and to protect public safety.

SEC. 778. STUDY OF NATURAL GAS RESERVE.

(a) FINDINGS.—Congress finds that:

(1) In the last few months, natural gas prices across the country have tripled.

(2) In California, natural gas prices have increased twenty-fold, from $3 per million British thermal units to nearly $60 per million British thermal units.

(3) One of the major causes of these price increases is a lack of supply, including a lack of natural gas reserves.

(4) The lack of a reserve was compounded by the rupture of an El Paso Natural Gas Company pipeline in Carlsbad, New Mexico on August 1, 2000.

(5) Improving pipeline safety will help prevent similar accidents that interrupt the supply of natural gas and will help save lives.

(6) It is also necessary to find solutions for the lack of natural gas reserves that could be used during emergencies.

(b) STUDY BY THE NATIONAL ACADEMY OF SCIENCES.—The Secretary of Energy shall request the National Academy of Sciences to—

(1) conduct a study to—

(A) determine the causes of recent increases in the price of natural gas, including whether the increases have been caused by problems with the supply of natural gas or by problems with the natural gas transmission system;

(B) identify any Federal or State policies that may have contributed to the price increases; and

(C) determine what Federal action would be necessary to improve the reserve supply of natural gas for use in situations of natural gas shortages and price increases, including determining the feasibility and advisability of a Federal strategic natural gas reserve system; and

(2) not later than 60 days after the date of enactment of this Act, submit to Congress a report on the results of the study.

SEC. 779. STUDY AND REPORT ON NATURAL GAS PIPELINE AND STORAGE FACILITIES IN NEW ENGLAND.

(a) STUDY.—The Federal Energy Regulatory Commission, in consultation with the Department of Energy, shall conduct a study on the natural gas pipeline transmission network in New England and natural gas storage facilities

associated with that network. In carrying out the study, the Commission shall consider—

(1) the ability of natural gas pipeline and storage facilities in New England to meet current and projected demand by gas-fired power generation plants and other consumers;

(2) capacity constraints during unusual weather periods;

(3) potential constraint points in regional, interstate, and international pipeline capacity serving New England; and

(4) the quality and efficiency of the Federal environmental review and permitting process for natural gas pipelines.

(b) REPORT.—Not later than 120 days after the date of the enactment of this Act, the Federal Energy Regulatory Commission shall prepare and submit to the Senate Committee on Energy and Natural Resources and the appropriate committee of the House of Representatives a report containing the results of the study conducted under subsection (a), including recommendations for addressing potential natural gas transmission and storage capacity problems in New England.

PART III—PIPELINE SECURITY SENSITIVE INFORMATION

SEC. 781. MEETING COMMUNITY RIGHT TO KNOW WITHOUT SECURITY RISKS.

Section 60117 is amended by adding at the end the following:

"(l) WITHHOLDING CERTAIN INFORMATION.—

"(1) IN GENERAL.—Notwithstanding any other provision of this chapter requiring the Secretary to provide information obtained by the Secretary or an officer, employee, or agent in carrying out this chapter to State or local government officials, the public, or any other person, the Secretary shall withhold such information if it is information that is described in section 552(b)(1)(A) of title 5, United States Code.

"(2) CONDITIONAL RELEASE.—Notwithstanding paragraph (1), upon the receipt of assurances satisfactory to the Secretary that the information will be handled appropriately, the Secretary may provide information permitted to be withheld under that paragraph—

"(A) to the owner or operator of the affected pipeline system;

"(B) to an officer, employee or agent of a Federal, State, tribal, or local government, in-

cluding a volunteer fire department, concerned with carrying out this chapter, with protecting the facilities, with protecting public safety, or with national security issues;

"(C) in an administrative or judicial proceeding brought under this chapter or an administrative or judicial proceeding that addresses terrorist actions or threats of such actions; or

"(D) to such other persons as the Secretary determines necessary to protect public safety and security.

"(3) REPORT TO CONGRESS.—The Secretary shall provide an annual report to the Congress, in appropriate form as determined by the Secretary, containing a summary of determinations made by the Secretary during the preceding year to withhold information from release under paragraph (1).".

SEC. 782. TECHNICAL ASSISTANCE FOR SECURITY OF PIPELINE FACILITIES.

The Secretary of Transportation may provide technical assistance to an operator of a pipeline facility or to State, tribal, or local officials to prevent or respond to acts of terrorism that may impact the pipeline facility, including—

(1) actions by the Secretary that support the use of National Guard or State or Federal personnel to provide additional security for a pipeline facility at risk of terrorist attack or in response to such an attack;

(2) use of resources available to the Secretary to develop and implement security measures for a pipeline facility;

(3) identification of security issues with respect to the operation of a pipeline facility; and

(4) the provision of information and guidance on security practices that prevent damage to pipeline facilities from terrorist attacks.

SEC. 783. CRIMINAL PENALTIES FOR DAMAGING OR DESTROYING A FACILITY.

Section 60123(b) of title 49, United States Code, is amended—

(1) by striking "or" after "gas pipeline facility" and inserting a comma; and

(2) by inserting after "liquid pipeline facility" the following: ", or either an intrastate gas pipeline facility or an intrastate hazardous liquid pipeline facility that is used in interstate or foreign commerce or in any activity affecting interstate or foreign commerce".

DIVISION C—DIVERSIFYING ENERGY DEMAND AND IMPROVING EFFICIENCY

TITLE VIII—FUELS AND VEHICLES

Subtitle A—CAFE Standards, Alternative Fuels, and Advanced Technology

SEC. 801. INCREASED FUEL ECONOMY STANDARDS.

(a) REQUIREMENT FOR NEW REGULATIONS.—

(1) IN GENERAL.—The Secretary of Transportation shall issue, under section 32902 of title 49, United States Code, new regulations setting forth increased average fuel economy standards for automobiles that are determined on the basis of the maximum feasible average fuel economy levels for the automobiles, taking into consideration the matters set forth in subsection (f) of such section.

(2) TIME FOR ISSUING REGULATIONS.—

(A) NON-PASSENGER AUTOMOBILES.—For non-passenger automobiles, the Secretary of Transportation shall issue the final regulations not later than 15 months after the date of the enactment of this Act.

(B) PASSENGER AUTOMOBILES.—For passenger automobiles, the Secretary of Transportation shall issue—

(i) the proposed regulations not later than 180 days after the date of the enactment of this Act; and

(ii) the final regulations not later than 2 years after that date.

(b) PHASED INCREASES.—The regulations issued pursuant to subsection (a) shall specify standards that take effect successively over several vehicle model years not exceeding 15 vehicle model years.

(c) CLARIFICATION OF AUTHORITY TO AMEND PASSENGER AUTOMOBILE STANDARD.—Section 32902(b) of title 49, United States Code, is amended by inserting before the period at the end the following: "or such other number as the Secretary prescribes under subsection (c)".

(d) ENVIRONMENTAL ASSESSMENT.—When issuing final regulations setting forth increased average fuel economy standards under this section, the Secretary of Transportation shall also issue an environmental assessment of the effects of the implementation of the increased standards on the environment under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Department of Transportation for fiscal year 2003, to remain available until expended, $2,000,000 to carry out this section.

SEC. 802. EXPEDITED PROCEDURES FOR CONGRESSIONAL INCREASE IN FUEL ECONOMY STANDARDS.

(a) CONDITION FOR APPLICABILITY.—If the Secretary of Transportation fails to issue final regulations with respect to non-passenger automobiles under section 801, or fails to issue final regulations with respect to passenger automobiles under such section, on or before the date by which such final regulations are required by such section to be issued, respectively, then this section shall apply with respect to a bill described in subsection (b).

(b) BILL.—A bill referred to in this subsection is a bill that satisfies the following requirements:

(1) INTRODUCTION.—The bill is introduced by one or more Members of Congress not later than 60 days after the date referred to in subsection (a).

(2) TITLE.—The title of the bill is as follows: "A bill to establish new average fuel economy standards for certain motor vehicles.".

(3) TEXT.—The bill provides after the enacting clause only the text specified in subparagraph (A) or

(B) or any provision described in subparagraph (C), as follows:

(A) NON-PASSENGER AUTOMOBILES.—In the case of a bill relating to a failure timely to issue final regulations relating to non-passenger automobiles, the following text:

"That, section 32902 of title 49, United States Code, is amended by adding at the end the following new subsection:

"'(__) NON-PASSENGER AUTOMOBILES.—The average fuel economy standard for non-passenger automobiles manufactured by a manufacturer in a model year after model year ____ shall be ____ miles per gallon.'", the first blank space being filled in with a subsection designation, the second blank space being filled in with the number of a year, and the third blank space being filled in with a number.

(B) PASSENGER AUTOMOBILES.—In the case of a bill relating to a failure timely to issue final regulations relating to passenger automobiles, the following text:

"That, section 32902(b) of title 49, United States Code, is amended to read as follows:

"'(b) PASSENGER AUTOMOBILES.—Except as provided in this section, the average fuel economy standard for passenger automobiles manufactured by a manufacturer in a model year after model year ____ shall be ____ miles per

gallon.' ", the first blank space being filled in with the number of a year and the second blank space being filled in with a number.

(C) SUBSTITUTE TEXT.—Any text substituted by an amendment that is in order under subsection (c)(3).

(c) EXPEDITED PROCEDURES.—A bill described in subsection (b) shall be considered in a House of Congress in accordance with the procedures provided for the consideration of joint resolutions in paragraphs (3) through (8) of section 8066(c) of the Department of Defense Appropriations Act, 1985 (as contained in section 101(h) of Public Law 98–473; 98 Stat. 1936), with the following exceptions:

(1) REFERENCES TO RESOLUTION.—The references in such paragraphs to a resolution shall be deemed to refer to the bill described in subsection (b).

(2) COMMITTEES OF JURISDICTION.—The committees to which the bill is referred under this subsection shall—

(A) in the Senate, be the Committee on Commerce, Science, and Transportation; and

(B) in the House of Representatives, be the Committee on Energy and Commerce.

(3) AMENDMENTS.—

(A) AMENDMENTS IN ORDER.—Only four amendments to the bill are in order in each House, as follows:

(i) Two amendments proposed by the majority leader of that House.

(ii) Two amendments proposed by the minority leader of that House.

(B) FORM AND CONTENT.—To be in order under subparagraph (A), an amendment shall propose to strike all after the enacting clause and substitute text that only includes the same text as is proposed to be stricken except for one or more different numbers in the text.

(C) DEBATE, ET CETERA.—Subparagraph (B) of section 8066(c)(5) of the Department of Defense Appropriations Act, 1985 (98 Stat. 1936) shall apply to the consideration of each amendment proposed pursuant to subparagraph (A) of this paragraph in the same manner as such subparagraph (B) applies to debatable motions.

SEC. 803. REVISED CONSIDERATIONS FOR DECISIONS ON MAXIMUM FEASIBLE AVERAGE FUEL ECONOMY.

Section 32902(f) of title 49, United States Code, is amended to read as follows:

"(f) CONSIDERATIONS FOR DECISIONS ON MAXIMUM FEASIBLE AVERAGE FUEL ECONOMY.—When deciding maximum feasible average fuel economy under this section, the Secretary of Transportation shall consider the following matters:

"(1) Technological feasibility.

"(2) Economic practicability.

"(3) The effect of other motor vehicle standards of the Government on fuel economy.

"(4) The need of the United States to conserve energy.

"(5) The desirability of reducing United States dependence on imported oil.

"(6) The effects of the average fuel economy standards on motor vehicle and passenger safety.

"(7) The effects of increased fuel economy on air quality.

"(8) The adverse effects of average fuel economy standards on the relative competitiveness of manufacturers.

"(9) The effects of compliance with average fuel economy standards on levels of employment in the United States.

"(10) The cost and lead time necessary for the introduction of the necessary new technologies.

"(11) The potential for advanced technology vehicles, such as hybrid and fuel cell vehicles, to contribute to the achievement of significant reductions in fuel consumption.

"(12) The extent to which the necessity for vehicle manufacturers to incur near-term costs to comply with the average fuel economy standards adversely affects the availability of resources for the development of advanced technology for the propulsion of motor vehicles.

"(13) The report of the National Research Council that is entitled 'Effectiveness and Impact of Corporate Average Fuel Economy Standards', issued in January 2002.".

SEC. 804. EXTENSION OF MAXIMUM FUEL ECONOMY INCREASE FOR ALTERNATIVE FUELED VEHICLES.

Section 32906(a)(1) of title 49, United States Code, is amended—

(1) in subparagraph (A), by striking "1993–2004" and inserting "1993 through 2008"; and

(2) in subparagraph (B), by striking "2005–2008" and inserting "2009 through 2012".

SEC. 805. PROCUREMENT OF ALTERNATIVE FUELED AND HYBRID LIGHT DUTY TRUCKS.

(a) VEHICLE FLEETS NOT COVERED BY REQUIREMENT IN ENERGY POLICY ACT OF 1992.—

(1) HYBRID VEHICLES.—The head of each agency of the executive branch shall coordinate with the Administrator of General Services to ensure that only hybrid vehicles are procured by or for each agency fleet of light duty trucks that is not in a fleet of vehicles to which section 303 of the Energy Policy Act of 1992 (42 U.S.C. 13212) applies.

(2) WAIVER AUTHORITY.—The head of an agency, in consultation with the Administrator, may waive the applicability of the policy regarding the procurement of hybrid vehicles in paragraph (1) to that agency to the extent that the head of that agency determines necessary—

(A) to meet specific requirements of the agency for capabilities of light duty trucks;

(B) to procure vehicles consistent with the standards applicable to the procurement of fleet vehicles for the Federal Government;

(C) to adjust to limitations on the commercial availability of light duty trucks that are hybrid vehicles; or

(D) to avoid the necessity of procuring a hybrid vehicle for the agency when each of the hybrid vehicles available for meeting the requirements of the agency has a cost to the United States that exceeds the costs of comparable non-hybrid vehicles by a factor that is significantly higher than the difference between—

(i) the real cost of the hybrid vehicle to retail purchasers, taking into account the benefit of any tax incentives available to retail purchasers for the purchase of the hybrid vehicle; and

(ii) the costs of the comparable non-hybrid vehicles to retail purchasers.

(3) APPLICABILITY TO PROCUREMENTS AFTER FISCAL YEAR 2004.—This subsection applies with respect to procurements of light duty trucks in fiscal year 2005 and subsequent fiscal years.

(b) REQUIREMENT TO EXCEED REQUIREMENT IN ENERGY POLICY ACT OF 1992.—

(1) LIGHT DUTY TRUCKS.—The head of each agency of the executive branch shall coordinate with the Administrator of General Services to ensure that, of the light duty trucks procured in fiscal years after fiscal year 2004 for the fleets of light duty vehicles of the agency to which section 303 of the Energy Policy Act of 1992 (42 U.S.C. 13212) applies—

(A) 5 percent of the total number of such trucks that are procured in each of fiscal years 2005 and 2006 are alternative fueled vehicles or hybrid vehicles; and

(B) 10 percent of the total number of such trucks that are procured in each fiscal year after fiscal year 2006 are alternative fueled vehicles or hybrid vehicles.

(2) COUNTING OF TRUCKS.—Light duty trucks acquired for an agency of the executive branch that are counted to comply with section 303 of the Energy Policy Act of 1992 (42 U.S.C. 13212) for a fiscal year shall be counted to determine the total number of light duty trucks procured for that agency for that fiscal year for the purposes of paragraph (1), but shall not

be counted to satisfy the requirement in that paragraph.

(c) DEFINITIONS.—In this section:

(1) HYBRID VEHICLE.—The term "hybrid vehicle" means—

(A) a motor vehicle that draws propulsion energy from onboard sources of stored energy that are both—

(i) an internal combustion or heat engine using combustible fuel; and

(ii) a rechargeable energy storage system; and

(B) any other vehicle that is defined as a hybrid vehicle in regulations prescribed by the Secretary of Energy for the administration of title III of the Energy Policy Act of 1992.

(2) ALTERNATIVE FUELED VEHICLE.—The term "alternative fueled vehicle" has the meaning given that term in section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211).

(d) INAPPLICABILITY TO DEPARTMENT OF DEFENSE.—This section does not apply to the Department of Defense, which is subject to comparable requirements under section 318 of the National Defense Authorization Act for

Fiscal Year 2002 (Public Law 107–107; 115 Stat. 1055; 10 U.S.C. 2302 note).

SEC. 806. USE OF ALTERNATIVE FUELS.

(a) EXCLUSIVE USE OF ALTERNATIVE FUELS IN DUAL FUELED VEHICLES.—The head of each agency of the executive branch shall coordinate with the Administrator of General Services to ensure that, not later than January 1, 2009, the fuel actually used in the fleet of dual fueled vehicles used by the agency is an alternative fuel.

(b) WAIVER AUTHORITY.—

(1) CAPABILITY WAIVER.—

(A) AUTHORITY.—If the Secretary of Transportation determines that not all of the dual fueled vehicles can operate on alternative fuels at all times, the Secretary may waive the requirement of subsection (a) in part, but only to the extent that—

(i) not later than January 1, 2009, not less than 50 percent of the total annual volume of fuel used in the dual fueled vehicles shall be alternative fuels; and

(ii) not later than January 1, 2011, not less than 75 percent of the total annual volume of fuel used in the dual fueled vehicles shall be alternative fuels.

(B) EXPIRATION.—In no case may a waiver under subparagraph (A) remain in effect after December 31, 2012.

(2) REGIONAL FUEL AVAILABILITY WAIVER.—The Secretary may waive the applicability of the requirement of subsection (a) to vehicles used by an agency in a particular geographic area where the alternative fuel otherwise required to be used in the vehicles is not reasonably available to retail purchasers of the fuel, as certified to the Secretary by the head of the agency.

(c) DEFINITIONS.—In this section:

(1) ALTERNATIVE FUEL.—The term "alternative fuel" has the meaning given that term in section 32901(a)(1) of title 49, United States Code.

(2) DUAL FUELED VEHICLE.—The term "dual fueled vehicle" has the meaning given the term "dual fueled automobile" in section 32901(a)(8) of title 49, United States Code.

(3) FLEET.—The term "fleet", with respect to dual fueled vehicles, has the meaning that is given that term with respect to light duty motor vehicles in section 301(9) of the Energy Policy Act of 1992 (42 U.S.C. 13211(9)).

SEC. 807. HYBRID ELECTRIC AND FUEL CELL VEHICLES.

(a) EXPANSION OF SCOPE.—The Secretary of Energy shall expand the research and development program of the Department of Energy on advanced technologies for improving the environmental cleanliness of vehicles to emphasize research and development on the following:

(1) Fuel cells, including—

(A) high temperature membranes for fuel cells; and

(B) fuel cell auxiliary power systems.

(2) Hydrogen storage.

(3) Advanced vehicle engine and emission control systems.

(4) Advanced batteries and power electronics for hybrid vehicles.

(5) Advanced fuels.

(6) Advanced materials.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Department of Energy for fiscal year 2003, the amount of $225,000,000 for carrying out the expanded research and development program provided for under this section.

SEC. 808. DIESEL FUELED VEHICLES.

(a) DIESEL COMBUSTION AND AFTER TREATMENT TECHNOLOGIES.—The Secretary of Energy shall accelerate research and development directed toward the improvement

of diesel combustion and after treatment technologies for use in diesel fueled motor vehicles.

(b) GOAL.—

(1) COMPLIANCE WITH TIER 2 EMISSION STANDARDS BY 2010.—The Secretary shall carry out subsection (a) with a view to developing and demonstrating diesel technology meeting tier 2 emission standards not later than 2010.

(2) TIER 2 EMISSION STANDARDS DEFINED.—In this subsection, the term "tier 2 emission standards" means the motor vehicle emission standards promulgated by the Administrator of the Environmental Protection Agency on February 10, 2000, under sections 202 and 211 of the Clean Air Act to apply to passenger cars, light trucks, and larger passenger vehicles of model years after the 2003 vehicle model year.

SEC. 809. FUEL CELL DEMONSTRATION.

(a) PROGRAM REQUIRED.—The Secretary of Energy and the Secretary of Defense shall jointly carry out a program to demonstrate—

(1) fuel cell technologies developed in the PNGV and Freedom Car programs;

(2) fuel cell technologies developed in research and development programs of the Department of Defense; and

(3) follow-on fuel cell technologies.

(b) PURPOSES OF PROGRAM.—The purposes of the program are to identify and support technological advances that are necessary to achieve accelerated availability of fuel cell technology for use both for nonmilitary and military purposes.

(c) COOPERATION WITH INDUSTRY.—

(1) IN GENERAL.—The demonstration program shall be carried out in cooperation with industry, including the automobile manufacturing industry and the automotive systems and component suppliers industry.

(2) COST SHARING.—The Secretary of Energy and the Secretary of Defense shall provide for industry to bear, in cash or in kind, at least one-half of the total cost of carrying out the demonstration program.

(d) DEFINITIONS.—In this section:

(1) PNGV PROGRAM.—The term "PNGV program" means the Partnership for a New Generation of Vehicles, a cooperative program engaged in by the Departments of Commerce, Energy, Transportation,

and Defense, the Environmental Protection Agency, the National Science Foundation, and the National Aeronautics and Space Administration with the automotive industry for the purpose of developing a new generation of vehicles with capabilities resulting in significantly improved fuel efficiency together with low emissions without compromising the safety, performance, affordability, or utility of the vehicles.

(2) FREEDOM CAR PROGRAM.—The term "Freedom Car program" means a cooperative research program engaged in by the Department of Energy with the United States Council on Automotive Research as a follow-on to the PNGV program.

SEC. 810. BUS REPLACEMENT.

(a) REQUIREMENT FOR STUDY.—The Secretary of Transportation shall carry out a study to determine how best to provide for converting the composition of the fleets of buses in metropolitan areas and school systems from buses utilizing current diesel technology to—

(1) buses that draw propulsion from onboard fuel cells;

(2) buses that are hybrid electric vehicles;

(3) buses that are fueled by clean-burning fuels, such as renewable fuels (including agriculture-based

biodiesel fuels), natural gas, and ultra-low sulphur diesel;

(4) buses that are powered by clean diesel engines: or

(5) an assortment of buses described in paragraphs (1), (2), (3), and (4).

(b) REPORT.—

(1) REQUIREMENT.—The Secretary of Transportation shall submit a report on the results of the study on bus fleet conversions under subsection (a) to Congress.

(2) CONTENT.—The report on bus fleet conversions shall include the following:

(A) An assessment of effectuating conversions by the following means:

(i) Replacement of buses.

(ii) Replacement of power and propulsion systems in buses utilizing current diesel technology.

(iii) Other means.

(B) Feasible schedules for carrying out the conversions.

(C) Estimated costs of carrying out the conversions.

(D) An assessment of the benefits of the conversions in terms of emissions control and reduction of fuel consumption.

SEC. 811. AVERAGE FUEL ECONOMY STANDARDS FOR PICKUP TRUCKS.

(a) IN GENERAL.—Section 32902(a) of title 49, United States Code, is amended—

(1) by inserting "(1)" after the after "AUTOMOBILES.—"; and

(2) by adding at the end the following new paragraph:

"(2) The average fuel economy standard for pickup trucks manufactured by a manufacturer in a model year after model year 2004 shall be no higher than 20.7 miles per gallon. No average fuel economy standard prescribed under another provision of this section shall apply to pickup trucks.".

(b) DEFINITION OF PICKUP TRUCK.—Section 32901(a) of such title is amended by adding at the end the following new paragraph:

"(17) 'pickup truck' has the meaning given that term in regulations prescribed by the Secretary for the administration of this chapter, as in effect on January 1, 2002, except that such term shall also include any additional vehicle that the Secretary de-

fines as a pickup truck in regulations prescribed for the administration of this chapter after such date.".

SEC. 812. EXCEPTION TO HOV PASSENGER REQUIREMENTS FOR ALTERNATIVE FUEL VEHICLES.

Section 102(a)(1) of title 23, United States Code, is amended by inserting after "required" the following: "(unless, in the discretion of the State transportation department, the vehicle is being operated on, or is being fueled by, an alternative fuel (as defined in section 301(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2)))".

SEC. 813. DATA COLLECTION.

Section 205 of the Department of Energy Organization Act (42 U.S.C. 7135) is amended by adding at the end the following:

"(m) In order to improve the ability to evaluate the effectiveness of the Nation's renewable fuels mandate, the Administrator shall conduct and publish the results of a survey of renewable fuels consumption in the motor vehicle fuels market in the United States monthly, and in a manner designed to protect the confidentiality of individual responses. In conducting the survey, the Administrator shall collect information retrospectively to 1998, both on a national basis and a regional basis, including—

(1) the quantity of renewable fuels produced;

(2) the cost of production;

(3) the cost of blending and marketing;

(4) the quantity of renewable fuels blended;

(5) the quantity of renewable fuels imported; and

(6) market price data.

SEC. 814. GREEN SCHOOL BUS PILOT PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Energy and the Secretary of Transportation shall jointly establish a pilot program for awarding grants on a competitive basis to eligible entities for the demonstration and commercial application of alternative fuel school buses and ultra-low sulfur diesel school buses.

(b) REQUIREMENTS.—Not later than 3 months after the date of the enactment of this Act, the Secretary shall establish and publish in the Federal Register grant requirements on eligibility for assistance, and on implementation of the program established under subsection (a), including certification requirements to ensure compliance with this subtitle.

(c) SOLICITATION.—Not later than 6 months after the date of the enactment of this Act, the Secretary shall solicit proposals for grants under this section.

(d) ELIGIBLE RECIPIENTS.—A grant shall be awarded under this section only—

(1) to a local governmental entity responsible for providing school bus service for one or more public school systems; or

(2) jointly to an entity described in paragraph (1) and a contracting entity that provides school bus service to the public school system or systems.

(e) TYPES OF GRANTS.—

(1) IN GENERAL.—Grants under this section shall be for the demonstration and commercial application of technologies to facilitate the use of alternative fuel school buses and ultra-low sulfur diesel school buses instead of buses manufactured before model year 1977 and diesel-powered buses manufactured before model year 1991.

(2) NO ECONOMIC BENEFIT.—Other than the receipt of the grant, a recipient of a grant under this section may not receive any economic benefit in connection with the receipt of the grant.

(3) PRIORITY OF GRANT APPLICATIONS.—The Secretary shall give priority to awarding grants to applicants who can demonstrate the use of alternative fuel buses and ultra-low sulfur diesel school buses instead of buses manufactured before model year 1977.

(f) CONDITIONS OF GRANT.—A grant provided under this section shall include the following conditions:

(1) All buses acquired with funds provided under the grant shall be operated as part of the school bus fleet for which the grant was made for a minimum of 5 years.

(2) Funds provided under the grant may only be used—

(A) to pay the cost, except as provided in paragraph (3), of new alternative fuel school buses or ultra-low sulfur diesel school buses, including State taxes and contract fees; and

(B) to provide—

(i) up to 10 percent of the price of the alternative fuel buses acquired, for necessary alternative fuel infrastructure if the infrastructure will only be available to the grant recipient; and

(ii) up to 15 percent of the price of the alternative fuel buses acquired, for necessary alternative fuel infrastructure if the infrastructure will be available to the grant recipient and to other bus fleets.

(3) The grant recipient shall be required to provide at least the lesser of 15 percent of the total cost of each bus received or $15,000 per bus.

(4) In the case of a grant recipient receiving a grant to demonstrate ultra-low sulfur diesel school buses, the grant recipient shall be required to provide documentation to the satisfaction of the Secretary that diesel fuel containing sulfur at not more than 15 parts per million is available for carrying out the purposes of the grant, and a commitment by the applicant to use such fuel in carrying out the purposes of the grant.

(g) BUSES.—Funding under a grant made under this section may only be used to demonstrate the use of new alternative fuel school buses or ultra-low sulfur diesel school buses that—

(1) have a gross vehicle weight greater than 14,000 pounds;

(2) are powered by a heavy duty engine;

(3) in the case of alternative fuel school buses, emit not more than—

(A) for buses manufactured in model year 2002, 2.5 grams per brake horsepower-hour of nonmethane hydrocarbons and oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter; and

(B) for buses manufactured in model years 2003 through 2006, 1.8 grams per brake horse-

power-hour of nonmethane hydrocarbons and oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter; and

(4) in the case of ultra-low sulfur diesel school buses, emit not more than the lesser of—

(A) the emissions of nonmethane hydrocarbons, oxides of nitrogen, and particulate matter of the best performing technology of the same class of ultra-low sulfur diesel school buses commercially available at the time the grant is made; or

(B) the applicable following amounts—

(i) for buses manufactured in model year 2002 or 2003, 3.0 grams per brake horsepower-hour of oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter; and

(ii) for buses manufactured in model years 2004 through 2006, 2.5 grams per brake horsepower-hour of nonmethane hydrocarbons and oxides of nitrogen and .01 grams per brake horsepower-hour of particulate matter.

(h) DEPLOYMENT AND DISTRIBUTION.—The Secretary shall seek to the maximum extent practicable to achieve na-

tionwide deployment of alternative fuel school buses through the program under this section, and shall ensure a broad geographic distribution of grant awards, with a goal of no State receiving more than 10 percent of the grant funding made available under this section for a fiscal year.

(i) LIMIT ON FUNDING.—The Secretary shall provide not less than 20 percent and not more than 25 percent of the grant funding made available under this section for any fiscal year for the acquisition of ultra-low sulfur diesel school buses.

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

(1) the term "alternative fuel school bus" means a bus powered substantially by electricity (including electricity supplied by a fuel cell), or by liquefied natural gas, compressed natural gas, liquefied petroleum gas, hydrogen, propane, or methanol or ethanol at no less than 85 percent by volume;

(2) the term "idling" means not turning off an engine while remaining stationary for more than approximately 3 minutes; and

(3) the term "ultra-low sulfur diesel school bus" means a school bus powered by diesel fuel which contains sulfur at not more than 15 parts per million.

(k) REDUCTION OF SCHOOL BUS IDLING.—Each local educational agency (as defined in section 9101 of the Ele-

mentary and Secondary Education Act of 1965 (20 U.S.C. 7801)) that receives Federal funds under the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6301 et seq.) is encouraged to develop a policy to reduce the incidence of school buses idling at schools when picking up and unloading students.

SEC. 815. FUEL CELL BUS DEVELOPMENT AND DEMONSTRATION PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish a program for entering into cooperative agreements with private sector fuel cell bus developers for the development of fuel cell-powered school buses, and subsequently with not less than two units of local government using natural gas-powered school buses and such private sector fuel cell bus developers to demonstrate the use of fuel cell-powered school buses.

(b) COST SHARING.—The non-Federal contribution for activities funded under this section shall be not less than—

(1) 20 percent for fuel infrastructure development activities; and

(2) 50 percent for demonstration activities and for development activities not described in paragraph (1).

(c) FUNDING.—No more than $25,000,000 of the amounts authorized under section 815 may be used for car-

rying out this section for the period encompassing fiscal years 2003 through 2006.

(d) REPORTS TO CONGRESS.—Not later than 3 years after the date of the enactment of this Act, and not later than October 1, 2006, the Secretary shall transmit to the appropriate congressional committees a report that—

(1) evaluates the process of converting natural gas infrastructure to accommodate fuel cell-powered school buses; and

(2) assesses the results of the development and demonstration program under this section.

SEC. 816. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Energy for carrying out sections 814 and 815, to remain available until expended—

(1) $50,000,000 for fiscal year 2003;

(2) $60,000,000 for fiscal year 2004;

(3) $70,000,000 for fiscal year 2005; and

(4) $80,000,000 for fiscal year 2006.

SEC. 817. TEMPORARY BIODIESEL CREDIT EXPANSION.

(a) BIODIESEL CREDIT EXPANSION.—Section 312(b) of the Energy Policy Act of 1992 (42 U.S.C. 13220(b)) is amended by striking paragraph (2) and inserting the following:

"(2) USE.—

"(A) IN GENERAL.—A fleet or covered person—

"(i) may use credits allocated under subsection (a) to satisfy more than 50 percent of the alternative fueled vehicle requirements of a fleet or covered person under this title, title IV, and title V; but

"(ii) may use credits allocated under subsection (a) to satisfy 100 percent of the alternative fueled vehicle requirements of a fleet or covered person under title V for 1 or more of model years 2002 through 2005.

"(B) APPLICABILITY.—Subparagraph (A) does not apply to a fleet or covered person that is a biodiesel alternative fuel provider described in section 501(a)(2)(A).".

(b) TREATMENT AS SECTION 508 CREDITS.—Section 312(c) of the Energy Policy Act of 1992 (42 U.S.C. 13220(c)) is amended—

(1) in the subsection heading, by striking "CREDIT NOT" and inserting "TREATMENT AS"; and

(2) by striking "shall not be considered" and inserting "shall be treated as".

(c) ALTERNATIVE FUELED VEHICLE STUDY AND REPORT.—

(1) DEFINITIONS.—In this subsection:

(A) ALTERNATIVE FUEL.—The term "alternative fuel" has the meaning given the term in section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211).

(B) ALTERNATIVE FUELED VEHICLE.—The term "alternative fueled vehicle" has the meaning given the term in section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211).

(C) LIGHT DUTY MOTOR VEHICLE.—The term "light duty motor vehicle" has the meaning given the term in section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211).

(D) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(2) BIODIESEL CREDIT EXTENSION STUDY.—As soon as practicable after the date of enactment of this Act, the Secretary shall conduct a study—

(A) to determine the availability and cost of light duty motor vehicles that qualify as alternative fueled vehicles under title V of the Energy Policy Act of 1992 (42 U.S.C. 13251 et seq.); and

(B) to compare—

(i) the availability and cost of biodiesel; with

(ii) the availability and cost of fuels that qualify as alternative fuels under title V of the Energy Policy Act of 1992 (42 U.S.C. 13251 et seq.).

(3) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report that—

(A) describes the results of the study conducted under paragraph (2); and

(B) includes any recommendations of the Secretary for legislation to extend the temporary credit provided under subsection (a) beyond model year 2005.

SEC. 818. NEIGHBORHOOD ELECTRIC VEHICLES.

Section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211) is amended—

(1) by striking "or a dual fueled vehicle" and inserting ", a dual fueled vehicle, or a neighborhood electric vehicle";

(2) by striking "and" at the end of paragraph (13);

(3) by striking the period at the end of subparagraph (14) and inserting "; and"; and

(4) by adding at the end the following:

"(15) the term 'neighborhood electric vehicle' means a motor vehicle that qualifies as both—

"(A) a low-speed vehicle, as such term is defined in section 571.3(b) of title 49, Code of Federal Regulations; and

"(B) a zero-emission vehicle, as such term is defined in section 86.1703–99 of title 40, Code of Federal Regulations.".

SEC. 819. CREDIT FOR HYBRID VEHICLES, DEDICATED ALTERNATIVE FUEL VEHICLES, AND INFRASTRUCTURE.

Section 507 of the Energy Policy Act of 1992 (42 U.S.C. 13258) is amended by adding at the end the following:

"(p) CREDITS FOR NEW QUALIFIED HYBRID MOTOR VEHICLES.—

"(1) DEFINITIONS.—In this subsection:

"(A) 2000 MODEL YEAR CITY FUEL EFFICIENCY.—The term '2000 model year city fuel efficiency', with respect to a motor vehicle, means fuel efficiency determined in accordance with the following tables:

"(i) In the case of a passenger automobile:

"If vehicle inertia weight class is:	*The 2000 model year city fuel efficiency is:*
1,500 or 1,750 lbs	*43.7 mpg*
2,000 lbs	*38.3 mpg*
2,250 lbs	*34.1 mpg*
2,500 lbs	*30.7 mpg*
2,750 lbs	*27.9 mpg*
3,000 lbs	*25.6 mpg*
3,500 lbs	*22.0 mpg*
4,000 lbs	*19.3 mpg*
4,500 lbs	*17.2 mpg*
5,000 lbs	*15.5 mpg*
5,500 lbs	*14.1 mpg*
6,000 lbs	*12.9 mpg*
6,500 lbs	*11.9 mpg*
7,000 to 8,500 lbs	*11.1 mpg.*

"(ii) In the case of a light truck:

"If vehicle inertia weight class is:	*The 2000 model year city fuel efficiency is:*
1,500 or 1,750 lbs	*37.6 mpg*
2,000 lbs	*33.7 mpg*
2,250 lbs	*30.6 mpg*
2,500 lbs	*28.0 mpg*
2,750 lbs	*25.9 mpg*
3,000 lbs	*24.1 mpg*
3,500 lbs	*21.3 mpg*
4,000 lbs	*19.0 mpg*
4,500 lbs	*17.3 mpg*
5,000 lbs	*15.8 mpg*
5,500 lbs	*14.6 mpg*
6,000 lbs	*13.6 mpg*
6,500 lbs	*12.8 mpg*
7,000 to 8,500 lbs	*12.0 mpg.*

"(B) ADMINISTRATOR.—The term 'Administrator' means the Administrator of the Environmental Protection Agency.

"(C) ENERGY STORAGE DEVICE.—The term 'energy storage device' means an onboard rechargeable energy storage system or similar storage device.

"(D) FUEL EFFICIENCY.—The term 'fuel efficiency' means the percentage increased fuel effi-

ciency specified in table 1 in paragraph (2)(C) over the average 2000 model year city fuel efficiency of vehicles in the same weight class.

"(E) MAXIMUM AVAILABLE POWER.—The term 'maximum available power', with respect to a new qualified hybrid motor vehicle that is a passenger vehicle or light truck, means the quotient obtained by dividing—

"(i) the maximum power available from the electrical storage device of the new qualified hybrid motor vehicle, during a standard 10-second pulse power or equivalent test; by

"(ii) the sum of—

"(I) the maximum power described in clause (i); and

"(II) the net power of the internal combustion or heat engine, as determined in accordance with standards established by the Society of Automobile Engineers.

"(F) MOTOR VEHICLE.—The term 'motor vehicle' has the meaning given the term in section 216 of the Clean Air Act (42 U.S.C. 7550).

"(G) NEW QUALIFIED HYBRID MOTOR VEHICLE.—The term 'new qualified hybrid motor vehicle' means a motor vehicle that—

"(i) draws propulsion energy from both—

"(I) an internal combustion engine (or heat engine that uses combustible fuel); and

"(II) an energy storage device;

"(ii) in the case of a passenger automobile or light truck—

"(I) in the case of a 2001 or later model vehicle, receives a certificate of conformity under the Clean Air Act (42 U.S.C. 7401 et seq.) and produces emissions at a level that is at or below the applicable qualifying California low emissions vehicle standards established under authority of section 243(e)(2) of the Clean Air Act (42 U.S.C. 7583(e)(2)) for that make and model year; and

"(II) in the case of a 2004 or later model vehicle, is certified by the Administrator as producing emissions

at a level that is at or below the level established for Bin 5 vehicles in the Tier 2 regulations promulgated by the Administrator under section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)) for that make and model year vehicle; and

"(iii) employs a vehicle braking system that recovers waste energy to charge an energy storage device.

"(H) VEHICLE INERTIA WEIGHT CLASS.—The term 'vehicle inertia weight class' has the meaning given the term in regulations promulgated by the Administrator for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

"(2) ALLOCATION.—

"(A) IN GENERAL.—The Secretary shall allocate a partial credit to a fleet or covered person under this title if the fleet or person acquires a new qualified hybrid motor vehicle that is eligible to receive a credit under each of the tables in subparagraph (C).

"(B) AMOUNT.—The amount of a partial credit allocated under subparagraph (A) for a

vehicle described in that subparagraph shall be equal to the sum of—

"(i) the partial credits determined under table 1 in subparagraph (C); and

"(ii) the partial credits determined under table 2 in subparagraph (C).

"(C) TABLES.—The tables referred to in subparagraphs (A) and (B) are as follows:

"Table 1

"Partial credit for increased fuel efficiency:	***Amount of credit:***
At least 125% but less than 150% of 2000 model year city fuel efficiency	*0.14*
At least 150% but less than 175% of 2000 model year city fuel efficiency	*0.21*
At least 175% but less than 200% of 2000 model year city fuel efficiency	*0.28*
At least 200% but less than 225% of 2000 model year city fuel efficiency	*0.35*
At least 225% but less than 250% of 2000 model year city fuel efficiency	*0.50.*

"Table 2

"Partial credit for 'Maximum Available Power':	***Amount of credit:***
At least 5% but less than 10%	*0.125*
At least 10% but less than 20%	*0.250*
At least 20% but less than 30%	*0.375*
At least 30% or more	*0.500.*

"(D) USE OF CREDITS.—At the request of a fleet or covered person allocated a credit under this subsection, the Secretary shall, for the year in which the acquisition of the qualified hybrid motor vehicle is made, treat that credit as the acquisition of 1 alternative fueled vehicle that the

fleet or covered person is required to acquire under this title.

"(3) REGULATIONS.—The Secretary shall promulgate regulations under which any Federal fleet that acquires a new qualified hybrid motor vehicle will receive partial credits determined under the tables contained in paragraph (2)(C) for purposes of meeting the requirements of section 303.

"(q) CREDIT FOR SUBSTANTIAL CONTRIBUTION TOWARDS USE OF DEDICATED VEHICLES IN NONCOVERED FLEETS.—

"(1) DEFINITIONS.—In this subsection:

"(A) DEDICATED VEHICLE.—The term 'dedicated vehicle' includes—

"(i) a light, medium, or heavy duty vehicle; and

"(ii) a neighborhood electric vehicle.

"(B) MEDIUM OR HEAVY DUTY VEHICLE.—The term 'medium or heavy duty vehicle' includes a vehicle that—

"(i) operates solely on alternative fuel; and

"(ii)(I) in the case of a medium duty vehicle, has a gross vehicle weight rating of

more than 8,500 pounds but not more than 14,000 pounds; or

"(II) in the case of a heavy duty vehicle, has a gross vehicle weight rating of more than 14,000 pounds.

"(C) SUBSTANTIAL CONTRIBUTION.—The term 'substantial contribution' (equal to 1 full credit) means not less than $15,000 in cash or in kind services, as determined by the Secretary.

"(2) ISSUANCE OF CREDITS.—The Secretary shall issue a credit to a fleet or covered person under this title if the fleet or person makes a substantial contribution toward the acquisition and use of dedicated vehicles by a person that owns, operates, leases, or otherwise controls a fleet that is not covered by this title.

"(3) MULTIPLE CREDITS FOR MEDIUM AND HEAVY DUTY DEDICATED VEHICLES.—The Secretary shall issue 2 full credits to a fleet or covered person under this title if the fleet or person acquires a medium or heavy duty dedicated vehicle.

"(4) USE OF CREDITS.—At the request of a fleet or covered person allocated a credit under this subsection, the Secretary shall, for the year in which the acquisition of the dedicated vehicle is made, treat that

credit as the acquisition of 1 alternative fueled vehicle that the fleet or covered person is required to acquire under this title.

"(5) LIMITATION.—Per vehicle credits acquired under this subsection shall not exceed the per vehicle credits allowed under this section to a fleet for qualifying vehicles in each of the weight categories (light, medium, or heavy duty).

"(r) CREDIT FOR SUBSTANTIAL INVESTMENT IN ALTERNATIVE FUEL INFRASTRUCTURE.—

"(1) DEFINITIONS.—In this section, the term 'qualifying infrastructure' means—

"(A) equipment required to refuel or recharge alternative fueled vehicles;

"(B) facilities or equipment required to maintain, repair, or operate alternative fueled vehicles;

"(C) training programs, educational materials, or other activities necessary to provide information regarding the operation, maintenance, or benefits associated with alternative fueled vehicles; and

"(D) such other activities the Secretary considers to constitute an appropriate expenditure in support of the operation, maintenance, or fur-

ther widespread adoption of or utilization of alternative fueled vehicles.

"(2) ISSUANCE OF CREDITS.—The Secretary shall issue a credit to a fleet or covered person under this title for investment in qualifying infrastructure if the qualifying infrastructure is open to the general public during regular business hours.

"(3) AMOUNT.—For the purposes of credits under this subsection—

"(A) 1 credit shall be equal to a minimum investment of $25,000 in cash or in kind services, as determined by the Secretary; and

"(B) except in the case of a Federal or State fleet, no part of the investment may be provided by Federal or State funds.

"(4) USE OF CREDITS.—At the request of a fleet or covered person allocated a credit under this subsection, the Secretary shall, for the year in which the investment is made, treat that credit as the acquisition of 1 alternative fueled vehicle that the fleet or covered person is required to acquire under this title.".

SEC. 820. RENEWABLE CONTENT OF MOTOR VEHICLE FUEL.

(a) IN GENERAL.—Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended—

(1) by redesignating subsection (o) as subsection (q); and

(2) by inserting after subsection (n) the following:

"(o) RENEWABLE FUEL PPROGRAM.—

"(1) DEFINITIONS.—In this section:

"(A) CELLULOSIC BIOMASS ETHANOL.—The term 'cellulosic biomass ethanol' means ethanol derived from any lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis, including—

"(i) dedicated energy crops and trees;

"(ii) wood and wood residues;

"(iii) plants;

"(iv) grasses;

"(v) agricultural residues;

"(vi) fibers;

"(vii) animal wastes and other waste materials; and

"(viii) municipal solid waste.

"(B) RENEWABLE FUEL.—

"(i) IN GENERAL.—The term 'renewable fuel' means motor vehicle fuel that—

"(I)(aa) is produced from grain, starch, oilseeds, or other biomass; or

"(bb) is natural gas produced from a biogas source, including a landfill, sewage waste treatment plant, feedlot, or other place where decaying organic material is found; and

"(II) is used to replace or reduce the quantity of fossil fuel present in a fuel mixture used to operate a motor vehicle.

"(ii) INCLUSION.—The term 'renewable fuel' includes cellulosic biomass ethanol and biodiesel (as defined in section 312(f) of the Energy Policy Act of 1992 (42 U.S.C. 13220(f)).

"(C) SMALL REFINERY.—The term 'small refinery' means a refinery for which average aggregate daily crude oil throughput for the calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

"(2) RENEWABLE FUEL PROGRAM.—

"(A) IN GENERAL.—Not later than 1 year from enactment of this provision, the Administrator shall promulgate regulations ensuring that

gasoline sold or dispensed to consumers in the United States, on an annual average basis, contains the applicable volume of renewable fuel as specified in subparagraph (B). Regardless of the date of promulgation, such regulations shall contain compliance provisions for refiners, blenders, and importers, as appropriate, to ensure that the requirements of this section are met, but shall not restrict where renewables can be used, or impose any per-gallon obligation for the use of renewables. If the Administrator does not promulgate such regulations, the applicable percentage, on a volume percentage of gasoline basis, shall be 1.62 in 2004.

"(B) APPLICABLE VOLUME.—

(i) CALENDAR YEARS 2004 THROUGH 2012.—For the purpose of subparagraph (A), the applicable volume for any of calendar years 2004 through 2012 shall be determined in accordance with the following table:

Applicable volume of renewable fuel

"Calendar year:	***(In billions of gallons)***
2004	*2.3*
2005	*2.6*
2006	*2.9*
2007	*3.2*
2008	*3.5*
2009	*3.9*
2010	*4.3*

"Calendar year:	*(In billions of gallons)*
2011	*4.7*
2012	*5.0.*

"(ii) CALENDAR YEAR 2013 AND THEREAFTER.—For the purpose of subparagraph (A), the applicable volume for calendar year 2013 and each calendar year thereafter shall be equal to the product obtained by multiplying—

"(I) the number of gallons of gasoline that the Administrator estimates will be sold or introduced into commerce in the calendar year; and

"(II) the ratio that—

"(aa) 5.0 billion gallons of renewable fuels; bears to

"(bb) the number of gallons of gasoline sold or introduced into commerce in calendar year 2012.

"(3) APPLICABLE PERCENTAGES.—Not later than October 31 of each calendar year, through 2011, the Administrator of the Energy Information Administration shall provide the Administrator an estimate of the volumes of gasoline sales in the United States for the coming calendar year. Based on such estimates, the Administrator shall by November 30 of each calendar year, through 2011, determine and pub-

lish in the Federal Register, the renewable fuel obligation, on a volume percentage of gasoline basis, applicable to refiners, blenders, distributors and importers, as appropriate, for the coming calendar year, to ensure that the requirements of paragraph (2) are met. For each calendar year, the Administrator shall establish a single applicable percentage that applies to all parties, and make provision to avoid redundant obligations. In determining the applicable percentages, the Administrator shall make adjustments to account for the use of renewable fuels by exempt small refineries during the previous year.

"(4) CELLULOSIC BIOMASS ETHANOL.—For the purpose of paragraph (2), 1 gallon of cellulosic biomass ethanol shall be considered to be the equivalent of 1.5 gallon of renewable fuel.

"(5) CREDIT PROGRAM.—

"(A) IN GENERAL.—The regulations promulgated to carry out this subsection shall provide for the generation of an appropriate amount of credits by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2). Such regulations shall provide for the generation of an

appropriate amount of credits for biodiesel fuel. If a small refinery notifies the Administrator that it waives the exemption provided by this Act, the regulations shall provide for the generation of credits by the small refinery beginning in the year following such notification.

"(B) USE OF CREDITS.—A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

"(C) LIFE OF CREDITS.—A credit generated under this paragraph shall be valid to show compliance:

(i) in the calendar year in which the credit was generated or the next calendar year, or

(ii) in the calendar year in which the credit was generated or next two consecutive calendar years if the Administrator promulgates regulations under paragraph (6).

"(D) INABILITY TO PURCHASE SUFFICIENT CREDITS.—The regulations promulgated to carry out this subsection shall include provisions allowing any person that is unable to generate or

purchase sufficient credits to meet the requirements under paragraph (2) to carry forward a renewables deficit provided that, in the calendar year following the year in which the renewables deficit is created, such person shall achieve compliance with the renewables requirement under paragraph (2), and shall generate or purchase additional renewables credits to offset the renewables deficit of the previous year.

"(6) SEASONAL VARIATIONS IN RENEWABLE FUEL USE.—

"(A) STUDY.—For each of calendar years 2004 through 2012, the Administrator of the Energy Information Administration, shall conduct a study of renewable fuels blending to determine whether there are excessive seasonal variations in the use of renewable fuels.

"(B) REGULATION OF EXCESSIVE SEASONAL VARIATIONS.—If, for any calendar year, the Administrator of the Energy Information Administration, based on the study under subparagraph (A), makes the determinations specified in subparagraph (C), the Administrator shall promulgate regulations to ensure that 35 percent or more of the quantity of renewable fuels necessary

to meet the requirement of paragraph (2) is used during each of the periods specified in subparagraph (D) of each subsequent calendar year.

"(C) DETERMINATIONS.—The determinations referred to in subparagraph (B) are that—

"(i) less than 35 percent of the quantity of renewable fuels necessary to meet the requirement of paragraph (2) has been used during one of the periods specified in subparagraph (D) of the calendar year; and

"(ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years.

"(D) PERIODS.—The two periods referred to in this paragraph are—

"(i) April through September; and

"(ii) January through March and October through December.

"(E) EXCLUSIONS.—Renewable fuels blended or consumed in 2004 in a state which has received a waiver under section 209(b) shall not be included in the study in subparagraph (A).

"(7) WAIVERS.—

"(A) IN GENERAL.—The Administrator, in consultation with the Secretary of Agriculture

and the Secretary of Energy, may waive the requirement of paragraph (2) in whole or in part on petition by one or more States by reducing the national quantity of renewable fuel required under this subsection—

"(i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or

"(ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply or distribution capacity to meet the requirement.

"(B) PETITIONS FOR WAIVERS.—The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove a State petition for a waiver of the requirement of paragraph (2) within 90 days after the date on which the petition is received by the Administrator.

"(C) TERMINATION OF WAIVERS.—A waiver granted under subparagraph (A) shall terminate

after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

"(8) STUDY AND WAIVER FOR INITIAL YEAR OF PROGRAM.—Not later than 180 days from enactment, the Secretary of Energy shall complete for the Administrator a study assessing whether the renewable fuels requirement under paragraph (2) will likely result in significant adverse consumer impacts in 2004, on a national, regional or state basis. Such study shall evaluate renewable fuel supplies and prices, blendstock supplies, and supply and distribution system capabilities. Based on such study, the Secretary shall make specific recommendations to the Administrator regarding waiver of the requirements of paragraph (2), in whole or in part, to avoid any such adverse impacts. Within 270 days from enactment, the Administrator shall, consistent with the recommendations of the Secretary waive, in whole or in part, the renewable fuels requirement under paragraph (2) by reducing the national quantity of renewable fuel required under this subsection in 2004. This provision shall not be interpreted as limiting the Administrator's authority to waive the requirements of para-

graph (2) in whole, or in part, under paragraph (7), pertaining to waivers.

"(9) SMALL REFINERIES.—

"(A) IN GENERAL.—The requirement of paragraph (2) shall not apply to small refineries until January 1, 2008. Not later than December 31, 2006, the Secretary of Energy shall complete for the Administrator a study to determine whether the requirement of paragraph (2) would impose a disproportionate economic hardship on small refineries. For any small refinery that the Secretary of Energy determines would experience a disproportionate economic hardship, the Administrator shall extend the small refinery exemption for such small refinery for no less than two additional years.

"(B) ECONOMIC HARDSHIP.—

"(i) EXTENSION OF EXEMPTION.—A small refinery may at any time petition the Administrator for an extension of the exemption from the requirement of paragraph (2) for the reason of disproportionate economic hardship. In evaluating a hardship petition, the Administrator, in consultation with the Secretary of Energy, shall consider

the findings of the study in addition to other economic factors.

"(ii) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the receipt of the petition.

"(C) CREDIT PROGRAM.—If a small refinery notifies the Administrator that it waives the exemption provided by this Act, the regulations shall provide for the generation of credits by the small refinery beginning in the year following such notification.

"(D) OPT-IN FOR SMALL REFINERS.—A small refinery shall be subject to the requirements of this section if it notifies the Administrator that it waives the exemption under subparagraph (A).

(b) PENALTIES AND ENFORCEMENT.—Section 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is amended—

(1) in paragraph (1)—

(A) in the first sentence, by striking "or (n)" each place it appears and inserting "(n) or (o)"; and

(B) in the second sentence, by striking "or (m)" and inserting "(m), or (o)"; and

(2) in the first sentence of paragraph (2), by striking "and (n)" each place it appears and inserting "(n), and (o)".

(c) EXCLUSION FROM ETHANOL WAIVER.—Section 211(h) of the Clean Air Act (42 U.S.C. 7545(h)) is amended—

(1) by redesignating paragraph (5) as paragraph (6); and

(2) by inserting after paragraph (4) the following:

"(5) EXCLUSION FROM ETHANOL WAIVER.—

"(A) PROMULGATION OF REGULATIONS.—Upon notification, accompanied by supporting documentation, from the Governor of a State that the Reid vapor pressure limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the Reid vapor pressure limitation established by paragraph (4), the Reid vapor pressure limitation established by paragraph (1) to all fuel blends containing gasoline and 10 percent denatured anhydrous ethanol

that are sold, offered for sale, dispensed, supplied, offered for supply, transported or introduced into commerce in the area during the high ozone season.

"(B) DEADLINE FOR PROMULGATION.—The Administrator shall promulgate regulations under subparagraph (A) not later than 90 days after the date of receipt of a notification from a Governor under that subparagraph.

"(C) EFFECTIVE DATE.—

"(i) IN GENERAL.—With respect to an area in a State for which the Governor submits a notification under subparagraph (A), the regulations under that subparagraph shall take effect on the later of—

"(I) the first day of the first high ozone season for the area that begins after the date of receipt of the notification; or

"(II) 1 year after the date of receipt of the notification.

"(ii) EXTENSION OF EFFECTIVE DATE BASED ON DETERMINATION OF INSUFFICIENT SUPPLY.—

"(I) IN GENERAL.—If, after receipt of a notification with respect to an area from a Governor of a State under subparagraph (A), the Administrator determines, on the Administrator's own motion or on petition of any person and after consultation with the Secretary of Energy, that the promulgation of regulations described in subparagraph (A) would result in an insufficient supply of gasoline in the State, the Administrator, by regulation—

"(aa) shall extend the effective date of the regulations under clause (i) with respect to the area for not more than 1 year; and

"(bb) may renew the extension under item (aa) for two additional periods, each of which shall not exceed 1 year.

"(II) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted under subclause (I) not later than 180 days

after the date of receipt of the petition.".

(d) SURVEY OF RENEWABLE FUEL MARKET.—

(1) SURVEY AND REPORT.—Not later than December 1, 2005, and annually thereafter, the Administrator shall—

(A) conduct, with respect to each conventional gasoline use area and each reformulated gasoline use area in each State, a survey to determine the market shares of—

(i) conventional gasoline containing ethanol;

(ii) reformulated gasoline containing ethanol;

(iii) conventional gasoline containing renewable fuel; and

(iv) reformulated gasoline containing renewable fuel; and

(B) submit to Congress, and make publicly available, a report on the results of the survey under subparagraph (A).

(2) RECORDKEEPING AND REPORTING REQUIREMENTS.—The Administrator may require any refiner, blender, or importer to keep such records and make such reports as are necessary to ensure that the survey

conducted under paragraph (1) is accurate. The Administrator shall rely, to the extent practicable, on existing reporting and recordkeeping requirements to avoid duplicative requirements.

(3) APPLICABLE LAW.—Activities carried out under this subsection shall be conducted in a manner designed to protect confidentiality of individual responses.

(e) RENEWABLE FUELS SAFE HARBOR.—

(1) IN GENERAL.—Notwithstanding any other provision of federal or state law, no renewable fuel, as defined by this Act, used or intended to be used as a motor vehicle fuel, nor any motor vehicle fuel containing such renewable fuel, shall be deemed defective in design or manufacture by virtue of the fact that it is, or contains, such a renewable fuel, if it does not violate a control or prohibition imposed by the Administrator under section 211 of the Clean Air Act, as amended by this Act, and the manufacturer is in compliance with all requests for information under section 211(b) of the Clean Air Act, as amended by this Act. In the event that the safe harbor under this section does not apply, the existence of a design defect or manufacturing defect shall be determined under otherwise applicable law.

(2) EXCEPTIONS.—This subsection shall not apply to ethers.

(3) EFFECTIVE DATE.—This subsection shall be effective as of the date of enactment and shall apply with respect to all claims filed on or after that date.

SEC. 820A. FEDERAL AGENCY ETHANOL-BLENDED GASOLINE AND BIODIESEL PURCHASING REQUIREMENT.

Title III of the Energy Policy Act of 1992 is amended by striking section 306 (42 U.S.C. 13215) and inserting the following:

"SEC. 306. FEDERAL AGENCY ETHANOL-BLENDED GASOLINE AND BIODIESEL PURCHASING REQUIREMENT.

"(a) ETHANOL-BLENDED GASOLINE.—The head of each Federal agency shall ensure that, in areas in which ethanol-blended gasoline is reasonably available at a generally competitive price, the Federal agency purchases ethanol-blended gasoline containing at least 10 percent ethanol rather than nonethanol-blended gasoline, for use in vehicles used by the agency that use gasoline.

"(b) BIODIESEL.—

"(1) DEFINITION OF BIODIESEL.—In this subsection, the term 'biodiesel' has the meaning given the term in section 312(f).

"(2) REQUIREMENT.—The head of each Federal agency shall ensure that the Federal agency purchases, for use in fueling fleet vehicles that use diesel fuel used by the Federal agency at the location at which fleet vehicles of the Federal agency are centrally fueled, in areas in which the biodiesel-blended diesel fuel described in paragraphs (A) and (B) is available at a generally competitive price—

"(A) as of the date that is 5 years after the date of enactment of this paragraph, biodiesel-blended diesel fuel that contains at least 2 percent biodiesel, rather than nonbiodiesel-blended diesel fuel; and

"(B) as of the date that is 10 years after the date of enactment of this paragraph, biodiesel-blended diesel fuel that contains at least 20 percent biodiesel, rather than nonbiodiesel-blended diesel fuel.

"(3) REQUIREMENT OF FEDERAL LAW.—The provisions of this subsection shall not be considered a requirement of Federal law for the purposes of section 312.

"(c) EXEMPTION.—This section does not apply to fuel used in vehicles excluded from the definition of 'fleet' by subparagraphs (A) through (H) of section 301(9).".

SEC. 820B. COMMERCIAL BYPRODUCTS FROM MUNICIPAL SOLID WASTE LOAN GUARANTEE PROGRAM.

(a) DEFINITION OF MUNICIPAL SOLID WASTE.—In this section, the term "municipal solid waste" has the meaning given the term "solid waste" in section 1004 of the Solid Waste Disposal Act (42 U.S.C. 6903).

(b) ESTABLISHMENT OF PROGRAM.—The Secretary of Energy shall establish a program to provide guarantees of loans by private institutions for the construction of facilities for the processing and conversion of municipal solid waste into fuel ethanol and other commercial byproducts.

(c) REQUIREMENTS.—The Secretary may provide a loan guarantee under subsection (b) to an applicant if—

(1) without a loan guarantee, credit is not available to the applicant under reasonable terms or conditions sufficient to finance the construction of a facility described in subsection (b);

(2) the prospective earning power of the applicant and the character and value of the security pledged provide a reasonable assurance of repayment of the loan to be guaranteed in accordance with the terms of the loan; and

(3) the loan bears interest at a rate determined by the Secretary to be reasonable, taking into account the current average yield on outstanding obligations

of the United States with remaining periods of maturity comparable to the maturity of the loan.

(d) CRITERIA.—In selecting recipients of loan guarantees from among applicants, the Secretary shall give preference to proposals that—

(1) meet all applicable Federal and State permitting requirements;

(2) are most likely to be successful; and

(3) are located in local markets that have the greatest need for the facility because of—

(A) the limited availability of land for waste disposal; or

(B) a high level of demand for fuel ethanol or other commercial byproducts of the facility.

(e) MATURITY.—A loan guaranteed under subsection (b) shall have a maturity of not more than 20 years.

(f) TERMS AND CONDITIONS.—The loan agreement for a loan guaranteed under subsection (b) shall provide that no provision of the loan agreement may be amended or waived without the consent of the Secretary.

(g) ASSURANCE OF REPAYMENT.—The Secretary shall require that an applicant for a loan guarantee under subsection (b) provide an assurance of repayment in the form of a performance bond, insurance, collateral, or other means

acceptable to the Secretary in an amount equal to not less than 20 percent of the amount of the loan.

(h) GUARANTEE FEE.—The recipient of a loan guarantee under subsection (b) shall pay the Secretary an amount determined by the Secretary to be sufficient to cover the administrative costs of the Secretary relating to the loan guarantee.

(i) FULL FAITH AND CREDIT.—The full faith and credit of the United States is pledged to the payment of all guarantees made under this section. Any such guarantee made by the Secretary shall be conclusive evidence of the eligibility of the loan for the guarantee with respect to principal and interest. The validity of the guarantee shall be incontestable in the hands of a holder of the guaranteed loan.

(j) REPORTS.—Until each guaranteed loan under this section has been repaid in full, the Secretary shall annually submit to Congress an report on the activities of the Secretary under this section.

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

(l) TERMINATION OF AUTHORITY.—The authority of the Secretary to issue a loan guarantee under subsection

(b) terminates on the date that is 10 years after the date of enactment of this Act.

Subtitle B—Additional Fuel Efficiency Measures

SEC. 821. FUEL EFFICIENCY OF THE FEDERAL FLEET OF AUTOMOBILES.

Section 32917 of title 49, United States Code, is amended to read as follows:

"§ 32917. Standards for executive agency automobiles

"(a) BASELINE AVERAGE FUEL ECONOMY.—The head of each executive agency shall determine, for all automobiles in the agency's fleet of automobiles that were leased or bought as a new vehicle in fiscal year 1999, the average fuel economy for such automobiles. For the purposes of this section, the average fuel economy so determined shall be the baseline average fuel economy for the agency's fleet of automobiles.

"(b) INCREASE OF AVERAGE FUEL ECONOMY.—The head of an executive agency shall manage the procurement of automobiles for that agency in such a manner that—

"(1) not later than September 30, 2003, the average fuel economy of the new automobiles in the agency's fleet of automobiles is not less than 1 mile per gallon higher than the baseline average fuel economy determined under subsection (a) for that fleet; and

"(2) not later than September 30, 2005, the average fuel economy of the new automobiles in the agency's fleet of automobiles is not less than 3 miles per gallon higher than the baseline average fuel economy determined under subsection (a) for that fleet.

"(c) CALCULATION OF AVERAGE FUEL ECONOMY.—Average fuel economy shall be calculated for the purposes of this section in accordance with guidance which the Secretary of Transportation shall prescribe for the implementation of this section.

"(d) DEFINITIONS.—In this section:

"(1) The term 'automobile' does not include any vehicle designed for combat-related missions, law enforcement work, or emergency rescue work.

"(2) The term 'executive agency' has the meaning given that term in section 105 of title 5.

"(3) The term 'new automobile', with respect to the fleet of automobiles of an executive agency, means an automobile that is leased for at least 60 consecutive days or bought, by or for the agency, after September 30, 1999.".

SEC. 822. IDLING REDUCTION SYSTEMS IN HEAVY DUTY VEHICLES.

Title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.) is amended by adding at the end the following:

"PART K—REDUCING TRUCK IDLING

"SEC. 400AAA. REDUCING TRUCK IDLING.

"(a) STUDY.—Not later than 18 months after the date of enactment of this section, the Secretary shall, in consultation with the Secretary of Transportation, commence a study to analyze the potential fuel savings resulting from long duration idling of main drive engines in heavy-duty vehicles.

"(b) REGULATIONS.—Upon completion of the study under subsection (a), the Secretary may issue regulations requiring the installation of idling reduction systems on all newly manufactured heavy-duty vehicles.

"(c) DEFINITIONS.—As used in this section:

"(1) The term 'heavy-duty vehicle' means a vehicle that has a gross vehicle weight rating greater than 8,500 pounds and is powered by a diesel engine.

"(2) The term 'idling reduction system' means a device or system of devices used to reduce long duration idling of a diesel engine in a vehicle.

"(3) The term 'long duration idling' means the operation of a main drive engine of a heavy-duty ve-

hicle for a period of more than 15 consecutive minutes when the main drive engine is not engaged in gear, except that such term does not include idling as a result of traffic congestion or other impediments to the movement of a heavy-duty vehicle.

"(4) The term 'vehicle' has the meaning given such term in section 4 of title 1, United States Code.".

SEC. 823. CONSERVE BY BICYCLING PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Transportation shall establish a Conserve By Bicycling pilot program that shall provide for up to 10 geographically dispersed projects to encourage the use of bicycles in place of motor vehicles. Such projects shall use education and marketing to convert motor vehicle trips to bike trips, document project results and energy savings, and facilitate partnerships among entities in the fields of transportation, law enforcement, education, public health, environment, or energy. At least 20 percent of the cost of each project shall be provided from State or local sources. Not later than 2 years after implementation of the projects, the Secretary of Transportation shall submit a report to Congress on the results of the pilot program.

(b) NATIONAL ACADEMY STUDY.—The Secretary of Transportation shall contract with the National Academy

of Sciences to conduct a study on the feasibility and benefits of converting motor vehicle trips to bicycle trips and to issue a report, not later than 2 years after enactment of this Act, on the findings of such study.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary of' Transportation $5,500,000, to remain available until expended, to carry out the pilot program and study pursuant to this section.

SEC. 824. FUEL CELL VEHICLE PROGRAM.

Not later than 1 year from date of enactment of this section, the Secretary shall develop a program with timetables for developing technologies to enable at least 100,000 hydrogen-fueled fuel cell vehicles to be available for sale in the United States by 2010 and at least 2.5 million of such vehicles to be available by 2020 and annually thereafter. The program shall also include timetables for development of technologies to provide 50 million gasoline equivalent gallons of hydrogen for sale in fueling stations in the United States by 2010 and at least 2.5 billion gasoline equivalent gallons by 2020 and annually thereafter. The Secretary shall annually include a review of the progress toward meeting the vehicle sales of Energy budget.

Subtitle C—Federal Reformulated Fuels

SEC. 831. SHORT TITLE.

This subtitle may be cited as the "Federal Reformulated Fuels Act of 2002".

SEC. 832. LEAKING UNDERGROUND STORAGE TANKS.

(a) USE OF LUST FUNDS FOR REMEDIATION OF CONTAMINATION FROM ETHER FUEL ADDITIVES.—Section 9003(h) of the Solid Waste Disposal Act (42 U.S.C. 6991b(h)) is amended—

(1) in paragraph (7)(A)—

(A) by striking "paragraphs (1) and (2) of this subsection" and inserting "paragraphs (1), (2), and (12)"; and

(B) by inserting "and section 9010" before "if"; and

(2) by adding at the end the following:

"(12) REMEDIATION OF CONTAMINATION FROM ETHER FUEL ADDITIVES.—

"(A) IN GENERAL.—The Administrator and the States may use funds made available under section 9013(1) to carry out corrective actions with respect to a release of methyl tertiary butyl ether or other ether fuel additive that presents a

threat to human health, welfare, or the environment.

"(B) APPLICABLE AUTHORITY.—Subparagraph (A) shall be carried out—

"(i) in accordance with paragraph (2), except that a release with respect to which a corrective action is carried out under subparagraph (A) shall not be required to be from an underground storage tank; and

"(ii) in the case of a State, in accordance with a cooperative agreement entered into by the Administrator and the State under paragraph (7).".

(b) RELEASE PREVENTION AND COMPLIANCE.—Subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) is amended by striking section 9010 and inserting the following:

"SEC. 9010. RELEASE PREVENTION AND COMPLIANCE.

"Funds made available under section 9013(2) from the Leaking Underground Storage Tank Trust Fund may be used for conducting inspections, or for issuing orders or bringing actions under this subtitle—

"(1) by a State (pursuant to section 9003(h)(7)) acting under—

"(A) a program approved under section 9004; or

"(B) State requirements regulating underground storage tanks that are similar or identical to this subtitle, as determined by the Administrator; and

"(2) by the Administrator, acting under this subtitle or a State program approved under section 9004.

"SEC. 9011. BEDROCK BIOREMEDIATION.

"The Administrator shall establish, at an institution of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) with established expertise in bioremediation of contaminated bedrock aquifers, a resource center—

"(1) to conduct research concerning bioremediation of methyl tertiary butyl ether in contaminated underground aquifers, including contaminated bedrock; and

"(2) to provide for States a technical assistance clearinghouse for information concerning innovative technologies for bioremediation described in paragraph (1).

"SEC. 9012. SOIL REMEDIATION.

"The Administrator may establish a program to conduct research concerning remediation of methyl tertiary butyl ether contamination of soil, including granitic or volcanic soil.

"SEC. 9013. AUTHORIZATION OF APPROPRIATIONS.

"In addition to amounts made available under section 2007(f), there are authorized to be appropriated from the Leaking Underground Storage Tank Trust Fund, notwithstanding section 9508(c)(1) of the Internal Revenue Code of 1986—

"(1) to carry out section 9003(h)(12), $200,000,000 for fiscal year 2003, to remain available until expended;

"(2) to carry out section 9010—

"(A) $50,000,000 for fiscal year 2003; and

"(B) $30,000,000 for each of fiscal years 2004 through 2008;

"(3) to carry out section 9011—

"(A) $500,000 for fiscal year 2003; and

"(B) $300,000 for each of fiscal years 2004 through 2008; and

"(4) to carry out section 9012—

"(A) $100,000 for fiscal year 2003; and

"(B) $50,000 for each of fiscal years 2004 through 2008.

(c) TECHNICAL AMENDMENTS.—(1) Section 1001 of the Solid Waste Disposal Act (42 U.S.C. prec. 6901) is amended by striking the item relating to section 9010 and inserting the following:

"Sec. 9010. Release prevention and compliance.
"Sec. 9011. Bedrock bioremediation.
"Sec. 9012. Soil remediation.
"Sec. 9013. Authorization of appropriations.".

(2) Section 9001(3)(A) of the Solid Waste Disposal Act (42 U.S.C. 6991(3)(A)) is amended by striking "sustances" and inserting "substances".

(3) Section 9003(f)(1) of the Solid Waste Disposal Act (42 U.S.C. 6991b(f)(1)) is amended by striking "subsection (c) and (d) of this section" and inserting "subsections (c) and (d)".

(4) Section 9004(a) of the Solid Waste Disposal Act (42 U.S.C. 6991c(a)) is amended in the second sentence by striking "referred to" and all that follows and inserting "referred to in subparagraph (A) or (B), or both, of section 9001(2).".

(5) Section 9005 of the Solid Waste Disposal Act (42 U.S.C. 6991d) is amended—

(A) in subsection (a), by striking "study taking" and inserting "study, taking";

(B) in subsection (b)(1), by striking "relevent" and inserting "relevant"; and

(C) in subsection (b)(4), by striking "Evironmental" and inserting "Environmental".

SEC. 833. AUTHORITY FOR WATER QUALITY PROTECTION FROM FUELS.

(a) FINDINGS.—Congress finds that—

(1) since 1979, methyl tertiary butyl ether (referred to in this section as "MTBE") has been used nationwide at low levels in gasoline to replace lead as an octane booster or anti-knocking agent;

(2) Public Law 101–549 (commonly known as the "Clean Air Act Amendments of 1990") (42 U.S.C. 7401 et seq.) established a fuel oxygenate standard under which reformulated gasoline must contain at least 2 percent oxygen by weight;

(3) at the time of the adoption of the fuel oxygen standard, Congress was aware that significant use of MTBE could result from the adoption of that standard, and that the use of MTBE would likely be important to the cost-effective implementation of that program;

(4) Congress is aware that gasoline and its component additives have leaked from storage tanks, with consequences for water quality;

(5) the fuel industry responded to the fuel oxygenate standard established by Public Law 101–549 by making substantial investments in—

(A) MTBE production capacity; and

(B) systems to deliver MTBE-containing gasoline to the marketplace;

(6) when leaked or spilled into the environment, MTBE may cause serious problems of drinking water quality;

(7) in recent years, MTBE has been detected in water sources throughout the United States;

(8) MTBE can be detected by smell and taste at low concentrations;

(9) while small quantities of MTBE can render water supplies unpalatable, the precise human health effects of MTBE consumption at low levels are yet unknown;

(10) in the report entitled "Achieving Clean Air and Clean Water: The Report of the Blue Ribbon Panel on Oxygenates in Gasoline" and dated September 1999, Congress was urged—

(A) to eliminate the fuel oxygenate standard;

(B) to greatly reduce use of MTBE; and

(C) to maintain the environmental performance of reformulated gasoline;

(11) Congress has—

(A) reconsidered the relative value of MTBE in gasoline; and

(B) decided to eliminate use of MTBE as a fuel additive;

(12) the timeline for elimination of use of MTBE as a fuel additive must be established in a manner that achieves an appropriate balance among the goals of—

(A) environmental protection;

(B) adequate energy supply; and

(C) reasonable fuel prices; and

(13) it is appropriate for Congress to provide some limited transition assistance—

(A) to merchant producers of MTBE who produced MTBE in response to a market created by the oxygenate requirement contained in the Clean Air Act; and

(B) for the purpose of mitigating any fuel supply problems that may result from elimination of a widely-used fuel additive.

(b) PURPOSES.—The purposes of this section are—

(1) to eliminate use of MTBE as a fuel oxygenate; and

(2) to provide assistance to merchant producers of MTBE in making the transition from producing MTBE to producing other fuel additives.

(c) AUTHORITY FOR WATER QUALITY PROTECTION FROM FUELS.—Section 211(c) of the Clean Air Act (42 U.S.C. 7545(c)) is amended—

(1) in paragraph (1)(A)—

(A) by inserting "fuel or fuel additive or" after "Administrator any"; and

(B) by striking "air pollution which" and inserting "air pollution, or water pollution, that";

(2) in paragraph (4)(B), by inserting "or water quality protection," after "emission control,"; and

(3) by adding at the end the following:

"(5) PROHIBITION ON USE OF MTBE.—

"(A) IN GENERAL.—Subject to subparagraph (E), not later than 4 years after the date of enactment of this paragraph, the use of methyl tertiary butyl ether in motor vehicle fuel in any State other than a State described in subparagraph (C) is prohibited.

"(B) REGULATIONS.—The Administrator shall promulgate regulations to effect the prohibition in subparagraph (A).

"(C) STATES THAT AUTHORIZE USE.—A State described in this subparagraph is a State that submits to the Administrator a notice that the State authorizes use of methyl tertiary butyl ether in motor vehicle fuel sold or used in the State.

"(D) PUBLICATION OF NOTICE.—The Administrator shall publish in the Federal Register each notice submitted by a State under subparagraph (C).

"(E) TRACE QUANTITIES.—In carrying out subparagraph (A), the Administrator may allow trace quantities of methyl tertiary butyl ether, not to exceed 0.5 percent by volume, to be present in motor vehicle fuel in cases that the Administrator determines to be appropriate.

"(6) MTBE MERCHANT PRODUCER CONVERSION ASSISTANCE.—

"(A) IN GENERAL.—

"(i) GRANTS.—The Secretary of Energy, in consultation with the Administrator, may make grants to merchant pro-

ducers of methyl tertiary butyl ether in the United States to assist the producers in the conversion of eligible production facilities described in subparagraph (C) to the production of iso-octane and alkylates.

"(ii) DETERMINATION.—The Administrator, in consultation with the Secretary of Energy, may determine that transition assistance for the production of iso-octane and alkylates is inconsistent with the provisions of subparagraph (B) and, on that basis, may deny applications for grants authorized by this provision.

"(B) FURTHER GRANTS.—The Secretary of Energy, in consultation with the Administrator, may also further make grants to merchant producers of MTBE in the United States to assist the producers in the conversion of eligible production facilities described in subparagraph (C) to the production of such other fuel additives that, consistent with 211(c)—

"(i) unless the Administrator determines that such fuel additives may reasonably be anticipated to endanger public health or the environment;

"(ii) have been registered and have been tested or are being tested in accordance with the requirements of this section; and

"(iii) will contribute to replacing gasoline volumes lost as a result of paragraph (5).

"(C) ELIGIBLE PRODUCTION FACILITIES.—A production facility shall be eligible to receive a grant under this paragraph if the production facility—

"(i) is located in the United States; and

"(ii) produced methyl tertiary butyl ether for consumption in nonattainment areas during the period—

"(I) beginning on the date of enactment of this paragraph; and

"(II) ending on the effective date of the prohibition on the use of methyl tertiary butyl ether under paragraph (5).

"(D) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this paragraph $250,000,000 for each of fiscal years 2003 through 2005.".

(d) NO EFFECT ON LAW CONCERNING STATE AUTHORITY.—The amendments made by subsection (c) have no effect on the law in effect on the day before the date of enactment of this Act regarding the authority of States to limit the use of methyl tertiary butyl ether in motor vehicle fuel.

SEC. 834. ELIMINATION OF OXYGEN CONTENT REQUIREMENT FOR REFORMULATED GASOLINE.

(a) ELIMINATION.—

(1) IN GENERAL.—Section 211(k) of the Clean Air Act (42 U.S.C. 7545(k)) is amended—

(A) in paragraph (2)—

(i) in the second sentence of subparagraph (A), by striking "(including the oxygen content requirement contained in subparagraph (B))";

(ii) by striking subparagraph (B); and

(iii) by redesignating subparagraphs (C) and (D) as subparagraphs (B) and (C), respectively;

(B) in paragraph (3)(A), by striking clause (v);

(C) in paragraph (7)—

(i) in subparagraph (A)—

(I) by striking clause (i); and

(II) by redesignating clauses (ii) and (iii) as clauses (i) and (ii), respectively; and

(ii) in subparagraph (C)—

(I) by striking clause (ii); and

(II) by redesignating clause (iii) as clause (ii); and

(2) EFFECTIVE DATE.—The amendments made by paragraph (1) take effect 270 days after the date of enactment of this Act, except that such amendments shall take effect upon enactment in any State that has received a waiver under section 209(b) of the Clean Air Act.

(b) MAINTENANCE OF TOXIC AIR POLLUTANT EMISSION REDUCTIONS.—Section 211(k)(1) of the Clean Air Act (42 U.S.C. 7545(k)(1)) is amended—

(1) by striking "Within 1 year after the enactment of the Clean Air Act Amendments of 1990," and inserting the following:

"(A) IN GENERAL.—Not later than November 15, 1991,"; and

(2) by adding at the end the following:

"(B) MAINTENANCE OF TOXIC AIR POLLUTANT EMISSIONS REDUCTIONS FROM REFORMULATED GASOLINE.—

"(i) DEFINITIONS.—In this subparagraph the term 'PADD' means a Petroleum Administration for Defense District.

"(ii) REGULATIONS REGARDING EMISSIONS OF TOXIC AIR POLLUTANTS.—Not later than 270 days after the date of enactment of this subparagraph, the Administrator shall establish, for each refinery or importer (other than a refinery or importer in a State that has received a waiver under section 209(b) with regard to gasoline produced for use in that state), standards for toxic air pollutants from use of the reformulated gasoline produced or distributed by the refinery or importer that maintain the reduction of the average annual aggregate emissions of toxic air pollutants for reformulated gasoline produced or distributed by the refinery or importer during calendar years 1999 and 2000, determined on the basis of data collected by the Administrator with respect to the refinery or importer.

(iii) STANDARDS APPLICABLE TO SPECIFIC REFINERIES OR IMPORTERS.—

"(I) APPLICABILITY OF STANDARDS.—For any calendar year, the standards applicable to a refinery or importer under clause (ii) shall apply to the quantity of gasoline produced or distributed by the refinery or importer in the calendar year only to the extent that the quantity is less than or equal to the average annual quantity of reformulated gasoline produced or distributed by the refinery or importer during calendar years 1999 and 2000.

"(II) APPLICABILITY OF OTHER STANDARDS.—For any calendar year, the quantity of gasoline produced or distributed by a refinery or importer that is in excess of the quantity subject to subclause (I) shall be subject to standards for toxic air pollutants promulgated under subparagraph (A) and paragraph (3)(B).

"(iv) CREDIT PROGRAM.—The Administrator shall provide for the granting and use of credits for emissions of toxic air pol-

lutants in the same manner as provided in paragraph (7).

"(v) REGIONAL PROTECTION OF TOXICS REDUCTION BASELINES.—

"(I) IN GENERAL.—Not later than 60 days after the date of enactment of this subparagraph, and not later than April 1 of each calendar year that begins after that date of enactment, the Administrator shall publish in the Federal Register a report that specifies, with respect to the previous calendar year—

"(aa) the quantity of reformulated gasoline produced that is in excess of the average annual quantity of reformulated gasoline produced in 1999 and 2000; and

"(bb) the reduction of the average annual aggregate emissions of toxic air pollutants in each PADD, based on retail survey data or data from other appropriate sources.

"(II) EFFECT OF FAILURE TO MAINTAIN AGGREGATE TOXICS REDUCTIONS.—If, in any calendar year, the reduction of the average annual aggregate emissions of toxic air pollutants in a PADD fails to meet or exceed the reduction of the average annual aggregate emissions of toxic air pollutants in the PADD in calendar years 1999 and 2000, the Administrator, not later than 90 days after the date of publication of the report for the calendar year under subclause (I), shall—

"(aa) identify, to the maximum extent practicable, the reasons for the failure, including the sources, volumes, and characteristics of reformulated gasoline that contributed to the failure; and

"(bb) promulgate revisions to the regulations promulgated under clause (ii), to take effect not earlier than 180 days but not later than 270 days after the date of promulgation, to provide that,

notwithstanding clause (iii)(II), all reformulated gasoline produced or distributed at each refinery or importer shall meet the standards applicable under clause (iii) not later than April 1 of the year following the report in subclause (II) and for subsequent years.

"(vi) REGULATIONS TO CONTROL HAZARDOUS AIR POLLUTANTS FROM MOTOR VEHICLES AND MOTOR VEHICLE FUELS.—Not later than July 1, 2004, the Administrator shall promulgate final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels, as provided for in section 80.1045 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this subparagraph).".

(c) CONSOLIDATION IN REFORMULATED GASOLINE REGULATIONS.—Not later than 180 days after the date of enactment of this Act, the Administrator shall revise the reformulated gasoline regulations under subpart D of part 80 of title 40, Code of Federal Regulations, to consolidate the regulations applicable to VOC-Control Regions 1 and 2 under section 80.41 of that title by eliminating the less

stringent requirements applicable to gasoline designated for VOC-Control Region 2 and instead applying the more stringent requirements applicable to gasoline designated for VOC-Control Region 1.

(d) SAVINGS CLAUSE.—Nothing in this section is intended to affect or prejudice any legal claims or actions with respect to regulations promulgated by the Administrator prior to enactment of this Act regarding emissions of toxic air pollutants from motor vehicles.

(e) DETERMINATION REGARDING A STATE PETITION.—Section 211(k) of the Clean Air Act (42 U.S.C. 7545(k)) is amended by inserting after paragraph (10) the following:

"(11) DETERMINATION REGARDING A STATE PETITION.—

"(A) IN GENERAL.—Notwithstanding any other provision of this section, not less than 30 days after enactment of this paragraph the Administrator must determine the adequacy of any petition received from a Governor of a State to exempt gasoline sold in that State from the requirements of paragraph (2)(B).

"(B) APPROVAL.—If the determination in (A) is not made within thirty days of enactment

of this paragraph, the petition shall be deemed approved.".

SEC. 835. PUBLIC HEALTH AND ENVIRONMENTAL IMPACTS OF FUELS AND FUEL ADDITIVES.

Section 211(b) of the Clean Air Act (42 U.S.C. 7545(b)) is amended—

(1) in paragraph (2)—

(A) by striking "may also" and inserting "shall, on a regular basis,"; and

(B) by striking subparagraph (A) and inserting the following:

"(A) to conduct tests to determine potential public health and environmental effects of the fuel or additive (including carcinogenic, teratogenic, or mutagenic effects); and"; and

(2) by adding at the end the following:

"(4) STUDY ON CERTAIN FUEL ADDITIVES AND BLENDSTOCKS.—

"(A) IN GENERAL.—Not later than 2 years after the date of enactment of this paragraph, the Administrator shall—

"(i) conduct a study on the effects on public health, air quality, and water resources of increased use of, and the feasi-

bility of using as substitutes for methyl tertiary butyl ether in gasoline—

"(I) ethyl tertiary butyl ether;

"(II) tertiary amyl methyl ether;

"(III) di-isopropyl ether;

"(IV) tertiary butyl alcohol;

"(V) other ethers and heavy alcohols, as determined by then Administrator;

"(VI) ethanol;

"(VII) iso-octane; and

"(VIII) alkylates; and

"(ii) conduct a study on the effects on public health, air quality, and water resources of the adjustment for ethanol-blended reformulated gasoline to the VOC performance requirements otherwise applicable under sections 211(k)(1) and 211(k)(3) of the Clean Air Act.

"(iii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of these studies.

"(B) CONTRACTS FOR STUDY.—In carrying out this paragraph, the Administrator may enter into one or more contracts with nongovernmental entities including but not limited to National Energy Laboratories and institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)).".

SEC. 836. ANALYSES OF MOTOR VEHICLE FUEL CHANGES.

Section 211 of the Clean Air Act (42 U.S.C. 7545) (as amended by section 820(a)) is amended by inserting after subsection (o) the following:

"(p) ANALYSES OF MOTOR VEHICLE FUEL CHANGES AND EMISSIONS MODEL.—

"(1) ANTI-BACKSLIDING ANALYSIS.—

"(A) DRAFT ANALYSIS.—Not later than 4 years after the date of enactment of this paragraph, the Administrator shall publish for public comment a draft analysis of the changes in emissions of air pollutants and air quality due to the use of motor vehicle fuel and fuel additives resulting from implementation of the amendments made by the Federal Reformulated Fuels Act of 2002.

"(B) FINAL ANALYSIS.—After providing a reasonable opportunity for comment but not

later than 5 years after the date of enactment of this paragraph, the Administrator shall publish the analysis in final form.

"(2) EMISSIONS MODEL.—For the purposes of this subsection, as soon as the necessary data are available, the Administrator shall develop and finalize an emissions model that reasonably reflects the effects of gasoline characteristics or components on emissions from vehicles in the motor vehicle fleet during calendar year 2005.".

SEC. 837. ADDITIONAL OPT-IN AREAS UNDER REFORMULATED GASOLINE PROGRAM.

Section 211(k)(6) of the Clean Air Act (42 U.S.C. 7545(k)(6)) is amended—

(1) by striking "(6) OPT-IN AREAS.—(A) Upon" and inserting the following:

"(6) OPT-IN AREAS.—

"(A) CLASSIFIED AREAS.—

"(i) IN GENERAL.—Upon";

(2) in subparagraph (B), by striking "(B) If" and inserting the following:

"(ii) EFFECT OF INSUFFICIENT DOMESTIC CAPACITY TO PRODUCE REFORMULATED GASOLINE.—If";

(3) in subparagraph (A)(ii) (as redesignated by paragraph (2))—

(A) in the first sentence, by striking "subparagraph (A)" and inserting "clause (i)"; and

(B) in the second sentence, by striking "this paragraph" and inserting "this subparagraph"; and

(4) by adding at the end the following:

"(B) OZONE TRANSPORT REGION.—

"(i) APPLICATION OF PROHIBITION.—

"(I) IN GENERAL.—In addition to the provisions of subparagraph (A), upon the application of the Governor of a State in the ozone transport region established by section 184(a), the Administrator, not later than 180 days after the date of receipt of the application, shall apply the prohibition specified in paragraph (5) to any area in the State (other than an area classified as a marginal, moderate, serious, or severe ozone nonattainment area under subpart 2 of part D of title I) unless the Administrator determines under

clause (iii) that there is insufficient capacity to supply reformulated gasoline.

"(II) PUBLICATION OF APPLICATION.—As soon as practicable after the date of receipt of an application under subclause (I), the Administrator shall publish the application in the Federal Register.

"(ii) PERIOD OF APPLICABILITY.—Under clause (i), the prohibition specified in paragraph (5) shall apply in a State—

"(I) commencing as soon as practicable but not later than 2 years after the date of approval by the Administrator of the application of the Governor of the State; and

"(II) ending not earlier than 4 years after the commencement date determined under subclause (I).

"(iii) EXTENSION OF COMMENCEMENT DATE BASED ON INSUFFICIENT CAPACITY.—

"(I) IN GENERAL.—If, after receipt of an application from a Governor of a State under clause (i), the Administrator determines, on the Ad-

ministrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient capacity to supply reformulated gasoline, the Administrator, by regulation—

"(aa) shall extend the commencement date with respect to the State under clause (ii)(I) for not more than 1 year; and

"(bb) may renew the extension under item (aa) for two additional periods, each of which shall not exceed 1 year.

"(II) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.".

SEC. 838. FEDERAL ENFORCEMENT OF STATE FUELS REQUIREMENTS.

Section 211(c)(4)(C) of the Clean Air Act (42 U.S.C. 7545(c)(4)(C)) is amended—

(1) by striking "(C) A State" and inserting the following:

"(C) AUTHORITY OF STATE TO CONTROL FUELS AND FUEL ADDITIVES FOR REASONS OF NECESSITY.—

"(i) IN GENERAL.—A State"; and

(2) by adding at the end the following:

"(ii) ENFORCEMENT BY THE ADMINISTRATOR.—In any case in which a State prescribes and enforces a control or prohibition under clause (i), the Administrator, at the request of the State, shall enforce the control or prohibition as if the control or prohibition had been adopted under the other provisions of this section.".

SEC. 839. FUEL SYSTEM REQUIREMENTS HARMONIZATION STUDY.

(a) STUDY.—

(1) IN GENERAL.—The Administrator of the Environmental Protection Agency and the Secretary of Energy shall jointly conduct a study of Federal, State, and local requirements concerning motor vehicle fuels, including—

(A) requirements relating to reformulated gasoline, volatility (measured in Reid vapor pressure), oxygenated fuel, and diesel fuel; and

(B) other requirements that vary from State to State, region to region, or locality to locality.

(2) REQUIRED ELEMENTS.—The study shall assess—

(A) the effect of the variety of requirements described in paragraph (1) on the supply, quality, and price of motor vehicle fuels available to the consumer;

(B) the effect of the requirements described in paragraph (1) on achievement of—

(i) national, regional, and local air quality standards and goals; and

(ii) related environmental and public health protection standards and goals;

(C) the effect of Federal, State, and local motor vehicle fuel regulations, including multiple motor vehicle fuel requirements, on—

(i) domestic refineries;

(ii) the fuel distribution system; and

(iii) industry investment in new capacity;

(D) the effect of the requirements described in paragraph (1) on emissions from vehicles, refineries, and fuel handling facilities;

(E) the feasibility of developing national or regional motor vehicle fuel slates for the 48 contiguous States that, while protecting and improving air quality at the national, regional, and local levels, could—

(i) enhance flexibility in the fuel distribution infrastructure and improve fuel fungibility;

(ii) reduce price volatility and costs to consumers and producers;

(iii) provide increased liquidity to the gasoline market; and

(iv) enhance fuel quality, consistency, and supply; and

(F) the feasibility of providing incentives, and the need for the development of national standards necessary, to promote cleaner burning motor vehicle fuel.

(b) REPORT.—

(1) IN GENERAL.—Not later than June 1, 2006, the Administrator of the Environmental Protection Agency and the Secretary of Energy shall submit to

Congress a report on the results of the study conducted under subsection (a).

(2) RECOMMENDATIONS.—

(A) IN GENERAL.—The report shall contain recommendations for legislative and administrative actions that may be taken—

(i) to improve air quality;

(ii) to reduce costs to consumers and producers; and

(iii) to increase supply liquidity.

(B) REQUIRED CONSIDERATIONS.—The recommendations under subparagraph (A) shall take into account the need to provide advance notice of required modifications to refinery and fuel distribution systems in order to ensure an adequate supply of motor vehicle fuel in all States.

(3) CONSULTATION.—In developing the report, the Administrator of the Environmental Protection Agency and the Secretary of Energy shall consult with—

(A) the Governors of the States;

(B) automobile manufacturers;

(C) motor vehicle fuel producers and distributors; and

(D) the public.

SEC. 840. REVIEW OF FEDERAL PROCUREMENT INITIATIVES RELATING TO USE OF RECYCLED PRODUCTS AND FLEET AND TRANSPORTATION EFFICIENCY.

Not later than 180 days after the date of enactment of this Act, the Administrator of General Services shall submit to Congress a report that details efforts by each Federal agency to implement the procurement policies specified in Executive Order No. 13101 (63 Fed. Reg. 49643; relating to governmental use of recycled products) and Executive Order No. 13149 (65 Fed. Reg. 24607; relating to Federal fleet and transportation efficiency).

TITLE IX—ENERGY EFFICIENCY AND ASSISTANCE TO LOW INCOME CONSUMERS

Subtitle A—Low Income Assistance and State Energy Programs

SEC. 901. INCREASED FUNDING FOR LIHEAP, WEATHERIZATION ASSISTANCE, AND STATE ENERGY GRANTS.

(a) LIHEAP.—(1) Section 2602(b) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621(b)) is amended by striking the first sentence and inserting the following: "There are authorized to be appropriated to carry

out the provisions of this title (other than section 2607A), $3,400,000,000 for each of fiscal years 2003 through 2005.".

(2) Section 2602(e) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621(e)) is amended by striking "$600,000,000" and inserting "$1,000,000,000".

(3) Section 2609A(a) of the Low-Income Energy Assistance Act of 1981 (42 U.S.C. 8628a(a)) is amended by striking "not more than $300,000" and inserting: "not more than $750,000".

(b) WEATHERIZATION ASSISTANCE.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking "for fiscal years 1999 through 2003 such sums as may be necessary." and inserting: "$325,000,000 for fiscal year 2003, $400,000,000 for fiscal year 2004, and $500,000,000 for fiscal year 2005.".

SEC. 902. STATE ENERGY PROGRAMS.

(a) STATE ENERGY CONSERVATION PLANS.—Section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322)) is amended by adding at the end the following:

"(g) The Secretary shall, at least once every 3 years, invite the Governor of each State to review and, if necessary, revise the energy conservation plan of the State submitted under subsection (b) or (e). Such reviews should consider the energy conservation plans of other States within the region, and identify opportunities and actions that may

be carried out in pursuit of common energy conservation goals.".

(b) STATE ENERGY CONSERVATION GOALS.—Section 364 of the Energy Policy and Conservation Act (42 U.S.C. 6324) is amended to read as follows:

"SEC. 364. Each State energy conservation plan with respect to which assistance is made available under this part on or after the date of enactment of the Energy Policy Act of 2002 shall contain a goal, consisting of an improvement of 25 percent or more in the efficiency of use of energy in the State concerned in calendar year 2010 as compared to calendar year 1990, and may contain interim goals.".

(c) STATE ENERGY CONSERVATION GRANTS.—Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking "for fiscal years 1999 through 2003 such sums as may be necessary." and inserting: "$100,000,000 for each of fiscal years 2003 and 2004; $125,000,000 for fiscal year 2005; and such sums as may be necessary for each fiscal year thereafter.".

SEC. 903. ENERGY EFFICIENT SCHOOLS.

(a) ESTABLISHMENT.—There is established in the Department of Energy the High Performance Schools Program (in this section referred to as the "Program").

(b) GRANTS.—The Secretary of Energy may make grants to a State energy office—

(1) to assist school districts in the State to improve the energy efficiency of school buildings;

(2) to administer the Program; and

(3) to promote participation in the Program.

(c) GRANTS TO ASSIST SCHOOL DISTRICTS.—The Secretary shall condition grants under subsection (b)(1) on the State energy office using the grants to assist school districts that have demonstrated—

(1) a need for the grants to build additional school buildings to meet increasing elementary or secondary enrollments or to renovate existing school buildings; and

(2) a commitment to use the grant funds to develop high performance school buildings in accordance with a plan that the State energy office, in consultation with the State educational agency, has determined is feasible and appropriate to achieve the purposes for which the grant is made.

(d) GRANTS FOR ADMINISTRATION.—Grants under subsection (b)(2) shall be used to—

(1) evaluate compliance by school districts with requirements of this section;

(2) distribute information and materials to clearly define and promote the development of high

performance school buildings for both new and existing facilities;

(3) organize and conduct programs for school board members, school personnel, architects, engineers, and others to advance the concepts of high performance school buildings;

(4) obtain technical services and assistance in planning and designing high performance school buildings; or

(5) collect and monitor data and information pertaining to the high performance school building projects.

(e) GRANTS TO PROMOTE PARTICIPATION.—Grants under subsection (b)(3) shall be used for promotional and marketing activities, including facilitating private and public financing, promoting the use of energy savings performance contracts, working with school administrations, students, and communities, and coordinating public benefit programs.

(f) SUPPLEMENTING GRANT FUNDS.—The State energy office shall encourage qualifying school districts to supplement funds awarded pursuant to this section with funds from other sources in the implementation of their plans.

(g) ALLOCATIONS.—Except as provided in subsection (h), funds appropriated to carry out this section shall be allocated as follows:

(1) 70 percent shall be used to make grants under subsection (b)(1).

(2) 15 percent shall be used to make grants under subsection (b)(2).

(3) 15 percent shall be used to make grants under subsection (b)(3).

(h) OTHER FUNDS.—The Secretary of Energy may retain an amount, not to exceed $300,000 per year, to assist State energy offices in coordinating and implementing the Program. Such funds may be used to develop reference materials to further define the principles and criteria to achieve high performance school buildings.

(i) AUTHORIZATION OF APPROPRIATIONS.—For grants under subsection (b) there are authorized to be appropriated—

(1) $200,000,000 for fiscal year 2003;

(2) $210,000,000 for fiscal year 2004;

(3) $220,000,000 for fiscal year 2005;

(4) $230,000,000 for fiscal year 2006; and

(5) such sums as may be necessary for fiscal year 2007 and each fiscal year thereafter through fiscal year 2012.

(j) DEFINITIONS.—For purposes of this section:

(1) HIGH PERFORMANCE SCHOOL BUILDING.—The term "high performance school building" means a school building that, in its design, construction, operation, and maintenance—

(A) maximizes use of renewable energy and energy-efficient technologies and systems;

(B) is cost-effective on a life-cycle basis;

(C) achieves either—

(i) the applicable Energy Star building energy performance ratings; or

(ii) energy consumption levels at least 30 percent below those of the most recent version of ASHRAE Standard 90.1;

(D) uses affordable, environmentally preferable, and durable materials;

(E) enhances indoor environmental quality;

(F) protects and conserves water; and

(G) optimizes site potential.

(2) RENEWABLE ENERGY.—The term "renewable energy" means energy produced by solar, wind, biomass, ocean, geothermal, or hydroelectric power.

(3) SCHOOL.—The term "school" means—

(A) an "elementary school" as that term is defined in section 14101(14) of the Elementary

and Secondary Education Act of 1965 (20 U.S.C. 8801(14)),

(B) a "secondary school" as that term is defined in section 14101(25) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(25)), or

(C) an elementary or secondary Indian school funded by the Bureau of Indian Affairs.

(4) STATE EDUCATIONAL AGENCY.—The term "State educational agency" has the same meaning given such term in section 14101(28) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(28)).

(5) STATE ENERGY OFFICE.—The term "State energy office" means the State agency responsible for developing State energy conservation plans under section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322), or, if no such agency exists, a State agency designated by the Governor of the State.

SEC. 904. LOW INCOME COMMUNITY ENERGY EFFICIENCY PILOT PROGRAM.

(a) GRANTS.—The Secretary of Energy is authorized to make grants to units of local government, private, nonprofit community development organizations, and Indian tribe economic development entities to improve energy effi-

ciency, identify and develop alternative renewable and distributed energy supplies, and increase energy conservation in low income rural and urban communities.

(b) PURPOSE OF GRANTS.—The Secretary may make grants on a competitive basis for—

(1) investments that develop alternative renewable and distributed energy supplies;

(2) energy efficiency projects and energy conservation programs;

(3) studies and other activities that improve energy efficiency in low income rural and urban communities;

(4) planning and development assistance for increasing the energy efficiency of buildings and facilities; and

(5) technical and financial assistance to local government and private entities on developing new renewable and distributed sources of power or combined heat and power generation.

(c) DEFINITION.—For purposes of this section, the term "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is

recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(d) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this section there are authorized to be appropriated to the Secretary of Energy an amount not to exceed $20,000,000 for fiscal year 2003 and each fiscal year thereafter through fiscal year 2005.

SEC. 905. ENERGY EFFICIENT APPLIANCE REBATE PROGRAMS.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE STATE.—The term "eligible State" means a State that meets the requirements of subsection (b).

(2) ENERGY STAR PROGRAM.—The term "Energy Star program" means the program established by section 324A of the Energy Policy and Conservation Act.

(3) RESIDENTIAL ENERGY STAR PRODUCT.—The term "residential Energy Star product" means a product for a residence that is rated for energy efficiency under the Energy Star program.

(4) STATE ENERGY OFFICE.—The term "State energy office" means the State agency responsible for developing State energy conservation plans under sec-

tion 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322).

(5) STATE PROGRAM.—The term "State program" means a State energy efficient appliance rebate program described in subsection (b)(1).

(b) ELIGIBLE STATES.—A State shall be eligible to receive an allocation under subsection (c) if the State—

(1) establishes (or has established) a State energy efficient appliance rebate program to provide rebates to residential consumers for the purchase of residential Energy Star products to replace used appliances of the same type;

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

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

(c) AMOUNT OF ALLOCATIONS.—

(1) IN GENERAL.—Subject to paragraph (2), for each fiscal year, the Secretary shall allocate to the State energy office of each eligible State to carry out subsection (d) an amount equal to the product obtained by multiplying the amount made available

under subsection (e) for the fiscal year by the ratio that the population of the State in the most recent calendar year for which data are available bears to the total population of all eligible States in that calendar year.

(2) MINIMUM ALLOCATIONS.—For each fiscal year, the amounts allocated under this subsection shall be adjusted proportionately so that no eligible State is allocated a sum that is less than an amount determined by the Secretary.

(d) USE OF ALLOCATED FUNDS.—The allocation to a State energy office under subsection (c) may be used to pay up to 50 percent of the cost of establishing and carrying out a State program.

(e) ISSUANCE OF REBATES.—Rebates may be provided to residential consumers that meet the requirements of the State program. The amount of a rebate shall be determined by the State energy office, taking into consideration—

(1) the amount of the allocation to the State energy office under subsection (c);

(2) the amount of any Federal or State tax incentive available for the purchase of the residential Energy Star product; and

(3) the difference between the cost of the residential Energy Star product and the cost of an appliance

that is not a residential Energy Star product, but is of the same type as, and is the nearest capacity, performance, and other relevant characteristics (as determined by the State energy office) to the residential Energy Star product.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as are necessary for fiscal year 2003 through fiscal year 2012.

Subtitle B—Federal Energy Efficiency

SEC. 911. ENERGY MANAGEMENT REQUIREMENTS.

(a) ENERGY REDUCTION GOALS.—Section 543(a)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)(1)) is amended to read as follows:

"(1) Subject to paragraph (2), each agency shall apply energy conservation measures to, and shall improve the design for the construction of, the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency in fiscal years 2002 through 2011 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in

fiscal year 2000, by the percentage specified in the following table:

"Fiscal Year	***Percentage reduction***
2002	*2*
2003	*4*
2004	*6*
2005	*8*
2006	*10*
2007	*12*
2008	*14*
2009	*16*
2010	*18*
2011	*20.".*

(b) REVIEW AND REVISION OF ENERGY PERFORMANCE REQUIREMENT.—Section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)) is further amended by adding at the end the following:

"(3) Not later than December 31, 2010, the Secretary shall review the results of the implementation of the energy performance requirement established under paragraph (1) and submit to Congress recommendations concerning energy performance requirements for calendar years 2012 through 2021.".

(c) EXCLUSIONS.—Section 543(c)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(1)) is amended to read as follows:

"(1)(A) An agency may exclude, from the energy performance requirement for a calendar year established under subsection (a) and the energy management requirement established under subsection (b),

any Federal building or collection of Federal buildings, if the head of the agency finds that—

"(i) compliance with those requirements would be impracticable;

"(ii) the agency has completed and submitted all federally required energy management reports;

"(iii) the agency has achieved compliance with the energy efficiency requirements of this Act, the Energy Policy Act of 1992, Executives Orders, and other Federal law; and

"(iv) the agency has implemented all practicable, life-cycle cost-effective projects with respect to the Federal building or collection of Federal buildings to be excluded.

"(B) A finding of impracticability under subparagraph (A)(i) shall be based on—

"(i) the energy intensiveness of activities carried out in the Federal building or collection of Federal buildings; or

"(ii) the fact that the Federal building or collection of Federal buildings is used in the performance of a national security function.".

(d) REVIEW BY SECRETARY.—Section 543(c)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(2)) is amended—

(1) by striking "impracticability standards" and inserting "standards for exclusion"; and

(2) by striking "a finding of impracticability" and inserting "the exclusion".

(e) CRITERIA.—Section 543(c) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)) is further amended by adding at the end the following:

"(3) Not later than 180 days after the date of enactment of this paragraph, the Secretary shall issue guidelines that establish criteria for exclusions under paragraph (1).".

(f) REPORTS.—Section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8258(b)) is amended—

(1) in the subsection heading, by inserting "THE PRESIDENT AND" before "CONGRESS"; and

(2) by inserting "President and" before "Congress".

(g) CONFORMING AMENDMENT.—Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8258b(d)) is amended in the second sentence by striking "the 20 percent reduction goal established under section 543(a) of the National Energy Conservation Policy Act (42

U.S.C. 8253(a)).'' and inserting ''each of the energy reduction goals established under section 543(a).''.

SEC. 912. ENERGY USE MEASUREMENT AND ACCOUNTABILITY.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is further amended by adding at the end the following:

''(e) METERING OF ENERGY USE.—

''(1) DEADLINE.—By October 1, 2004, all Federal buildings shall, for the purposes of efficient use of energy and reduction in the cost of electricity used in such buildings, be metered or submetered in accordance with guidelines established by the Secretary under paragraph (2). Each agency shall use, to the maximum extent practicable, advanced meters or advanced metering devices that provide data at least daily and that measure at least hourly consumption of electricity in the Federal buildings of the agency. Such data shall be incorporated into existing Federal energy tracking systems and made available to Federal facility energy managers.

''(2) GUIDELINES.—

''(A) IN GENERAL.—Not later than 180 days after the date of enactment of this subsection, the Secretary, in consultation with the

Department of Defense, the General Services Administration and representatives from the metering industry, utility industry, energy services industry, energy efficiency industry, national laboratories, universities and Federal facility energy managers, shall establish guidelines for agencies to carry out paragraph (1).

"(B) REQUIREMENTS FOR GUIDELINES.—The guidelines shall—

"(i) take into consideration—

"(I) the cost of metering and submetering and the reduced cost of operation and maintenance expected to result from metering and submetering;

"(II) the extent to which metering and submetering are expected to result in increased potential for energy management, increased potential for energy savings and energy efficiency improvement, and cost and energy savings due to utility contract aggregation; and

"(III) the measurement and verification protocols of the Department of Energy;

"(ii) include recommendations concerning the amount of funds and the number of trained personnel necessary to gather and use the metering information to track and reduce energy use;

"(iii) establish one or more dates, not later than 1 year after the date of issuance of the guidelines, on which the requirements specified in paragraph (1) shall take effect; and

"(iv) establish exclusions from the requirements specified in paragraph (1) based on the de minimus quantity of energy use of a Federal building, industrial process, or structure.

"(3) PLAN.—No later than 6 months after the date guidelines are established under paragraph (2), in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing how the agency will implement the requirements of paragraph (1), including (A) how the agency will designate personnel primarily responsible for achieving the requirements and (B) demonstration by the agency, complete with documentation, of any

finding that advanced meters or advanced metering devices, as defined in paragraph (1), are not practicable.".

SEC. 913. FEDERAL BUILDING PERFORMANCE STANDARDS.

(a) REVISED STANDARDS.—Section 305(a) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)) is amended—

(1) in paragraph (2)(A), by striking "CABO Model Energy Code, 1992" and inserting "the 2000 International Energy Conservation Code"; and

(2) by adding at the end the following:

"(3) REVISED FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS.—

"(A) IN GENERAL.—Not later than 1 year after the date of enactment of this paragraph, the Secretary of Energy shall establish, by rule, revised Federal building energy efficiency performance standards that require that, if cost-effective—

"(i) new commercial buildings and multifamily high rise residential buildings be constructed so as to achieve the applicable Energy Star building energy performance ratings or energy consumption levels at least 30 percent below those of the most

recent ASHRAE Standard 90.1, whichever results in the greater increase in energy efficiency;

"(ii) new residential buildings (other than those described in clause (i)) be constructed so as to achieve the applicable Energy Star building energy performance ratings or achieve energy consumption levels at least 30 percent below the requirements of the most recent version of the International Energy Conservation Code, whichever results in the greater increase in energy efficiency; and

"(iii) sustainable design principles are applied to the siting, design, and construction of all new and replacement buildings.

"(B) ADDITIONAL REVISIONS.—Not later than 1 year after the date of approval of amendments to ASHRAE Standard 90.1 or the 2000 International Energy Conservation Code, the Secretary of Energy shall determine, based on the cost-effectiveness of the requirements under the amendments, whether the revised standards established under this paragraph should be updated to reflect the amendments.

"(C) STATEMENT ON COMPLIANCE OF NEW BUILDINGS.—In the budget request of the Federal agency for each fiscal year and each report submitted by the Federal agency under section 548(a) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)), the head of each Federal agency shall include—

"(i) a list of all new Federal buildings of the Federal agency; and

"(ii) a statement concerning whether the Federal buildings meet or exceed the revised standards established under this paragraph, including a monitoring and commissioning report that is in compliance with the measurement and verification protocols of the Department of Energy.

"(D) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this paragraph and to implement the revised standards established under this paragraph.".

(b) ENERGY LABELING PROGRAM.—Section 305(a) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)) is further amended by adding at the end the following:

"(e) ENERGY LABELING PROGRAM.—The Secretary of Energy, in cooperation with the Administrator of the Environmental Protection Agency, shall develop an energy labeling program for new Federal buildings that exceed the revised standards established under subsection (a)(3) by 15 percent or more.".

SEC. 914. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

(a) REQUIREMENTS.—Part 3 of title V of the National Energy Conservation Policy Act is amended by adding at the end the following:

"SEC. 552. FEDERAL PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

"(a) DEFINITIONS.—In this section:

"(1) ENERGY STAR PRODUCT.—The term 'Energy Star product' means a product that is rated for energy efficiency under an Energy Star program.

"(2) ENERGY STAR PROGRAM.—The term 'Energy Star program' means the program established by section 324A of the Energy Policy and Conservation Act.

"(3) EXECUTIVE AGENCY.—The term 'executive agency' has the meaning given the term in section 4 of the Office of Federal Procurement Policy Act (41 U.S.C. 403).

"(4) 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 energy efficiency.

"(b) PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.—

"(1) REQUIREMENT.—To meet the requirements of an executive agency for an energy consuming product, the head of the executive agency shall, except as provided in paragraph (2), procure—

"(A) an Energy Star product; or

"(B) a FEMP designated product.

"(2) EXCEPTIONS.—The head of an executive agency is not required to procure an Energy Star product or FEMP designated product under paragraph (1) if—

"(A) an Energy Star product or FEMP designated product is not cost effective over the life cycle of the product; or

"(B) no Energy Star product or FEMP designated product is reasonably available that meets the requirements of the executive agency.

"(3) PROCUREMENT PLANNING.—The head of an executive agency shall incorporate into the specifications for all procurements involving energy consuming products and systems, and into the factors for the evaluation of offers received for the procurement, criteria for energy efficiency that are consistent with the criteria used for rating Energy Star products and for rating FEMP designated products.

"(c) LISTING OF ENERGY EFFICIENT PRODUCTS IN FEDERAL CATALOGS.—Energy Star 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.

(b) CONFORMING AMENDMENT.—The table of contents in section 1(b) of the National Energy Conservation Policy Act (42 U.S.C. 8201 note) is amended by inserting after the item relating to section 551 the following:

"Sec. 552. Federal Government procurement of energy efficient products."

(c) REGULATIONS.—Not later than 180 days after the effective date specified in subsection (f), the Secretary of Energy shall issue guidelines to carry out section 552 of the National Energy Conservation Policy Act (as added by subsection (a)).

(d) DESIGNATION OF ENERGY STAR PRODUCTS.—The Administrator of the Environmental Protection Agency and

the Secretary of Energy shall expedite the process of designating products as Energy Star products (as defined in section 552 of the National Energy Conservation Policy Act (as added by subsection (a)).

(e) DESIGNATION OF ELECTRIC MOTORS.—In the case of electric motors of 1 to 500 horsepower, agencies shall select only premium efficient motors that meet a standard designated by the Secretary. The Secretary shall designate such a standard within 120 days of the enactment of this paragraph, after considering the recommendations of associated electric motor manufacturers and energy efficiency groups.

(f) EFFECTIVE DATE.—Subsection (a) and the amendment made by that subsection take effect on the date that is 180 days after the date of enactment of this Act.

SEC. 915. REPEAL OF ENERGY SAVINGS PERFORMANCE CONTRACT SUNSET.

Section 801(c) of the National Energy Conservation Policy Act (42 U.S.C. 8287(c)) is repealed.

SEC. 916. ENERGY SAVINGS PERFORMANCE CONTRACT DEFINITIONS.

(a) ENERGY SAVINGS.—Section 804(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(2)) is amended to read as follows:

"(2) The term 'energy savings' means a reduction in the cost of energy or water, from a base cost established through a methodology set forth in the contract, used in an existing federally owned building or buildings or other federally owned facilities as a result of—

"(A) the lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services;

"(B) the increased efficient use of existing energy sources by cogeneration or heat recovery, excluding any cogeneration process for other than a federally owned building or buildings or other federally owned facilities; or

"(C) the increased efficient use of existing water sources.".

(b) ENERGY SAVINGS CONTRACT.—Section 804(3) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(3)) is amended to read as follows:

"(3) The terms 'energy savings contract' and 'energy savings performance contract' mean a contract which provides for the performance of services for the design, acquisition, installation, testing, operation, and, where appropriate, maintenance and repair, of

an identified energy or water conservation measure or series of measures at one or more locations.".

(c) ENERGY OR WATER CONSERVATION MEASURE.—Section 804(4) of the National Energy Conservation Policy Act (42 U.S.C. 8287c(4)) is amended to read as follows:

"(4) The term 'energy or water conservation measure' means—

"(A) an energy conservation measure, as defined in section 551(4) (42 U.S.C. 8259(4)); or

"(B) a water conservation measure that improves water efficiency, is life cycle cost effective, and involves water conservation, water recycling or reuse, more efficient treatment of wastewater or stormwater, improvements in operation or maintenance efficiencies, retrofit activities or other related activities, not at a Federal hydroelectric facility.".

SEC. 917. REVIEW OF ENERGY SAVINGS PERFORMANCE CONTRACT PROGRAM.

Within 180 days after the date of the enactment of this Act, the Secretary of Energy shall complete a review of the Energy Savings Performance Contract program to identify statutory, regulatory, and administrative obstacles that prevent Federal agencies from fully utilizing the program. In addition, this review shall identify all areas for increas-

ing program flexibility and effectiveness, including audit and measurement verification requirements, accounting for energy use in determining savings, contracting requirements, and energy efficiency services covered. The Secretary shall report these findings to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, and shall implement identified administrative and regulatory changes to increase program flexibility and effectiveness to the extent that such changes are consistent with statutory authority.

SEC. 918. FEDERAL ENERGY BANK.

Part 3 of title V of the National Energy Conservation Policy Act is amended by adding at the end the following:

"SEC. 553. FEDERAL ENERGY BANK.

"(a) DEFINITIONS.—In this section:

"(1) BANK.—The term 'Bank' means the Federal Energy Bank established by subsection (b).

"(2) ENERGY OR WATER EFFICIENCY PROJECT.—The term 'energy or water efficiency project' means a project that assists a Federal agency in meeting or exceeding the energy or water efficiency requirements of—

"(A) this part;

"(B) title VIII;

"(C) subtitle F of title I of the Energy Policy Act of 1992 (42 U.S.C. 8262 et seq.); or

"(D) any applicable Executive order, including Executive Order No. 13123.

"(3) FEDERAL AGENCY.—The term 'Federal agency' means—

"(A) an Executive agency (as defined in section 105 of title 5, United States Code);

"(B) the United States Postal Service;

"(C) Congress and any other entity in the legislative branch; and

"(D) a Federal court and any other entity in the judicial branch.

"(b) ESTABLISHMENT OF BANK.—

"(1) IN GENERAL.—There is established in the Treasury of the United States a fund to be known as the 'Federal Energy Bank', consisting of—

"(A) such amounts as are deposited in the Bank under paragraph (2);

"(B) such amounts as are repaid to the Bank under subsection (c)(2)(D); and

"(C) any interest earned on investment of amounts in the Bank under paragraph (3).

"(2) DEPOSITS IN BANK.—

"(A) IN GENERAL.—Subject to the availability of appropriations and to subparagraph (B), the Secretary of the Treasury shall deposit in the Bank an amount equal to $250,000,000 in fiscal year 2003 and in each fiscal year thereafter.

"(B) MAXIMUM AMOUNT IN BANK.—Deposits under subparagraph (A) shall cease beginning with the fiscal year following the fiscal year in which the amounts in the Bank (including amounts on loan from the Bank) become equal to or exceed $1,000,000,000.

"(3) INVESTMENT OF AMOUNTS.—The Secretary of the Treasury shall invest such portion of the Bank as is not, in the judgment of the Secretary, required to meet current withdrawals. Investments may be made only in interest-bearing obligations of the United States.

"(c) LOANS FROM THE BANK.—

"(1) IN GENERAL.—The Secretary of the Treasury shall transfer from the Bank to the Secretary such amounts as are appropriated to carry out the loan program under paragraph (2).

"(2) LOAN PROGRAM.—

"(A) ESTABLISHMENT.—

"(i) IN GENERAL.—In accordance with subsection (d), the Secretary, in consultation with the Secretary of Defense, the Administrator of General Services, and the Director of the Office of Management and Budget, shall establish a program to make loans of amounts in the Bank to any Federal agency that submits an application satisfactory to the Secretary in order to pay the costs of a project described in subparagraph (C).

"(ii) COMMENCEMENT OF OPERATIONS.—The Secretary may begin—

"(I) accepting applications for loans from the Bank in fiscal year 2002; and

"(II) making loans from the Bank in fiscal year 2003.

"(B) ENERGY SAVINGS PERFORMANCE CONTRACTING FUNDING.—To the extent practicable, an agency shall not submit a project for which energy performance contracting funding is available and is acceptable to the Federal agency under title VIII.

"(C) PURPOSES OF LOAN.—

"(i) IN GENERAL.—A loan from the Bank may be used to pay—

"(I) the costs of an energy or water efficiency project, or a renewable or alternative energy project, for a new or existing Federal building (including selection and design of the project);

"(II) the costs of an energy metering plan and metering equipment installed pursuant to section 543(e) or for the purpose of verification of the energy savings under an energy savings performance contract under title VIII; or

"(III) at the time of contracting, the costs of cofunding of an energy savings performance contract (including a utility energy service agreement) in order to shorten the payback period of the project that is the subject of the energy savings performance contract.

"(ii) LIMITATION.—A Federal agency may use not more than 10 percent of the amount of a loan under subclause (I) or (II) of clause (i) to pay the costs of admin-

istration and proposal development (including data collection and energy surveys).

"(iii) RENEWABLE AND ALTERNATIVE ENERGY PROJECTS.—Not more than 25 percent of the amount on loan from the Bank at any time may be loaned for renewable energy and alternative energy projects (as defined by the Secretary in accordance with applicable law (including Executive Orders)).

"(D) REPAYMENTS.—

"(i) IN GENERAL.—Subject to clauses (ii) through (iv), a Federal agency shall repay to the Bank the principal amount of a loan plus interest at a rate determined by the President, in consultation with the Secretary and the Secretary of the Treasury.

"(ii) WAIVER OR REDUCTION OF INTEREST.—The Secretary may waive or reduce the rate of interest required to be paid under clause (i) if the Secretary determines that payment of interest by a Federal agency at the rate determined under that clause is not required to fund the operations of the Bank.

"(iii) DETERMINATION OF INTEREST RATE.—The interest rate determined under clause (i) shall be at a rate that is sufficient to ensure that, beginning not later than October 1, 2007, interest payments will be sufficient to fully fund the operations of the Bank.

"(iv) INSUFFICIENCY OF APPROPRIATIONS.—

"(I) REQUEST FOR APPROPRIATIONS.—As part of the budget request of the Federal agency for each fiscal year, the head of each Federal agency shall submit to the President a request for such amounts as are necessary to make such repayments as are expected to become due in the fiscal year under this subparagraph.

"(II) SUSPENSION OF REPAYMENT REQUIREMENT.—If, for any fiscal year, sufficient appropriations are not made available to a Federal agency to make repayments under this subparagraph, the Bank shall suspend the requirement of repayment under this

subparagraph until such appropriations are made available.

"(E) FEDERAL AGENCY ENERGY BUDGETS.—Until a loan is repaid, a Federal agency budget submitted by the President to Congress for a fiscal year shall not be reduced by the value of energy savings accrued as a result of any energy conservation measure implemented using amounts from the Bank.

"(F) NO RESCISSION OR REPROGRAMMING.—A Federal agency shall not rescind or reprogram loan amounts made available from the Bank except as permitted under guidelines issued under subparagraph (G).

"(G) GUIDELINES.—The Secretary shall issue guidelines for implementation of the loan program under this paragraph, including selection criteria, maximum loan amounts, and loan repayment terms.

"(d) SELECTION CRITERIA.—

"(1) IN GENERAL.—The Secretary shall establish criteria for the selection of projects to be awarded loans in accordance with paragraph (2).

"(2) SELECTION CRITERIA.—

"(A) IN GENERAL.—The Secretary may make loans from the Bank only for a project that—

"(i) is technically feasible;

"(ii) is determined to be cost-effective using life cycle cost methods established by the Secretary;

"(iii) includes a measurement and management component, based on the measurement and verification protocols of the Department of Energy, to—

"(I) commission energy savings for new and existing Federal facilities;

"(II) monitor and improve energy efficiency management at existing Federal facilities; and

"(III) verify the energy savings under an energy savings performance contract under title VIII; and

"(iv)(I) in the case of a renewable energy or alternative energy project, has a simple payback period of not more than 15 years; and

"(II) in the case of any other project, has a simple payback period of not more than 10 years.

"(B) PRIORITY.—In selecting projects, the Secretary shall give priority to projects that—

"(i) are a component of a comprehensive energy management project for a Federal facility; and

"(ii) are designed to significantly reduce the energy use of the Federal facility.

"(e) REPORTS AND AUDITS.—

"(1) REPORTS TO THE SECRETARY.—Not later than 1 year after the completion of installation of a project that has a cost of more than $1,000,000, and annually thereafter, a Federal agency shall submit to the Secretary a report that—

"(A) states whether the project meets or fails to meet the energy savings projections for the project; and

"(B) for each project that fails to meet the energy savings projections, states the reasons for the failure and describes proposed remedies.

"(2) AUDITS.—The Secretary may audit, or require a Federal agency that receives a loan from the Bank to audit, any project financed with amounts

from the Bank to assess the performance of the project.

"(3) REPORTS TO CONGRESS.—At the end of each fiscal year, the Secretary shall submit to Congress a report on the operations of the Bank, including a statement of—

"(A) the total receipts by the Bank;

"(B) the total amount of loans from the Bank to each Federal agency; and

"(C) the estimated cost and energy savings resulting from projects funded with loans from the Bank.

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

SEC. 919. ENERGY AND WATER SAVING MEASURES IN CONGRESSIONAL BUILDINGS.

(a) IN GENERAL.—Part 3 of title V of the National Energy Conservation Policy Act is amended by adding at the end:

"SEC. 554. ENERGY AND WATER SAVINGS MEASURES IN CONGRESSIONAL BUILDINGS.

"(a) IN GENERAL.—The Architect of the Capitol—

"(1) shall develop, update, and implement a cost-effective energy conservation and management plan

(referred to in this section as the "plan") for all facilities administered by the Congress (referred to in this section as 'congressional buildings') to meet the energy performance requirements for Federal buildings established under section 543(a)(1); and

"(2) shall submit the plan to Congress, not later than 180 days after the date of enactment of this section.

"(b) PLAN REQUIREMENTS.—The plan shall include—

"(1) a description of the life-cycle cost analysis used to determine the cost-effectiveness of proposed energy efficiency projects;

"(2) a schedule of energy surveys to ensure complete surveys of all congressional buildings every 5 years to determine the cost and payback period of energy and water conservation measures;

"(3) a strategy for installation of life cycle cost effective energy and water conservation measures;

"(4) the results of a study of the costs and benefits of installation of submetering in congressional buildings; and

"(5) information packages and 'how-to' guides for each Member and employing authority of Congress that detail simple, cost-effective methods to save energy and taxpayer dollars in the workplace.

"(c) CONTRACTING AUTHORITY.—The Architect—

"(1) may contract with nongovernmental entities and use private sector capital to finance energy conservation projects and meet energy performance requirements; and

"(2) may use innovative contracting methods that will attract private sector funding for the installation of energy efficient and renewable energy technology, such as energy savings performance contracts described in title VIII.

"(d) CAPITOL VISITOR CENTER.—The Architect—

"(1) shall ensure that state-of-the-art energy efficiency and renewable energy technologies are used in the construction and design of the Visitor Center; and

"(2) shall include in the Visitor Center an exhibit on the energy efficiency and renewable energy measures used in congressional buildings.

"(e) ANNUAL REPORT.—The Architect shall submit to Congress annually a report on congressional energy management and conservation programs required under this section that describes in detail—

"(1) energy expenditures and savings estimates for each facility;

"(2) energy management and conservation projects; and

"(3) future priorities to ensure compliance with this section.".

(b) REPEAL.—Section 310 of the Legislative Branch Appropriations Act, 1999 (40 U.S.C. 166i), is repealed.

SEC. 920. INCREASED USE OF RECOVERED MATERIAL IN FEDERALLY FUNDED PROJECTS INVOLVING PROCUREMENT OF CEMENT OR CONCRETE.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) AGENCY HEAD.—The term "agency head" means—

(A) the Secretary of Transportation; and

(B) the head of each other Federal agency that on a regular basis procures, or provides Federal funds to pay or assist in paying the cost of procuring, material for cement or concrete projects.

(3) CEMENT OR CONCRETE PROJECT.—The term "cement or concrete project" means a project for the construction or maintenance of a highway or other transportation facility or a Federal, State, or local government building or other public facility that—

(A) involves the procurement of cement or concrete; and

(B) is carried out in whole or in part using Federal funds.

(4) RECOVERED MATERIAL.—The term "recovered material" means—

(A) ground granulated blast furnace slag;

(B) coal combustion fly ash; and

(C) any other waste material or byproduct recovered or diverted from solid waste that the Administrator, in consultation with an agency head, determines should be treated as recovered material under this section for use in cement or concrete projects paid for, in whole or in part, by the agency head.

(b) IMPLEMENTATION OF REQUIREMENTS.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator and each agency head shall take such actions as are necessary to implement fully all procurement requirements and incentives in effect as of the date of enactment of this Act (including guidelines under section 6002 of the Solid Waste Disposal Act (42 U.S.C. 6963)) that provide for the use of cement and concrete

incorporating recovered material in cement or concrete projects.

(2) PRIORITY.—In carrying out paragraph (1) an agency head shall give priority to achieving greater use of recovered material in cement or concrete projects for which recovered materials historically have not been used or have been used only minimally.

(c) FULL IMPLEMENTATION STUDY.—

(1) IN GENERAL.—The Administrator and the Secretary of Transportation, in cooperation with the Secretary of Energy, shall conduct a study to determine the extent to which current procurement requirements, when fully implemented in accordance with subsection (b), may realize energy savings and greenhouse gas emission reduction benefits attainable with substitution of recovered material in cement used in cement or concrete projects.

(2) MATTERS TO BE ADDRESSED.—The study shall—

(A) quantify the extent to which recovered materials are being substituted for Portland cement, particularly as a result of current procurement requirements, and the energy savings and greenhouse gas emission reduction benefits associated with that substitution;

(B) identify all barriers in procurement requirements to fuller realization of energy savings and greenhouse gas emission reduction benefits, including barriers resulting from exceptions from current law; and

(C)(i) identify potential mechanisms to achieve greater substitution of recovered material in types of cement or concrete projects for which recovered materials historically have not been used or have been used only minimally;

(ii) evaluate the feasibility of establishing guidelines or standards for optimized substitution rates of recovered material in those cement or concrete projects; and

(iii) identify any potential environmental or economic effects that may result from greater substitution of recovered material in those cement or concrete projects.

(3) REPORT.—Not later than 30 months after the date of enactment of this Act, the Secretary shall submit to the Committee on Appropriations and Committee on Environment and Public Works of the Senate and the Committee on Appropriations and Committee on Energy and Commerce of the House of Representatives a report on the study.

(d) ADDITIONAL PROCUREMENT REQUIREMENTS.—Within 1 year of the release of the report in accordance with subsection (c)(3), the Administrator and each agency head shall take additional actions authorized under the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.) to establish procurement requirements and incentives that provide for the use of cement and concrete with increased substitution of recovered material in the construction and maintenance of cement or concrete projects, so as to—

(1) realize more fully the energy savings and greenhouse gas emission reduction benefits associated with increased substitution; and

(2) eliminate barriers identified under subsection (c).

(e) EFFECT OF SECTION.—Nothing in this section affects the requirements of section 6002 of the Solid Waste Disposal Act (42 U.S.C. 6962) (including the guidelines and specifications for implementing those requirements).

Subtitle C—Industrial Efficiency and Consumer Products

SEC. 921. VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY.

(a) VOLUNTARY AGREEMENTS.—The Secretary of Energy shall enter into voluntary agreements with one or more persons in industrial sectors that consume significant

amounts of primary energy per unit of physical output to reduce the energy intensity of their production activities.

(b) GOAL.—Voluntary agreements under this section shall have a goal of reducing energy intensity by not less than 2.5 percent each year from 2002 through 2012.

(c) RECOGNITION.—The Secretary of Energy, in cooperation with the Administrator of the Environmental Protection Agency and other appropriate Federal agencies, shall develop mechanisms to recognize and publicize the achievements of participants in voluntary agreements under this section.

(d) DEFINITION.—In this section, the term "energy intensity" means the primary energy consumed per unit of physical output in an industrial process.

(e) TECHNICAL ASSISTANCE.—An entity that enters into an agreement under this section and continues to make a good faith effort to achieve the energy efficiency goals specified in the agreement shall be eligible to receive from the Secretary a grant or technical assistance as appropriate to assist in the achievement of those goals.

(f) REPORT.—Not later than June 30, 2008 and June 30, 2012, the Secretary shall submit to Congress a report that evaluates the success of the voluntary agreements, with independent verification of a sample of the energy savings estimates provided by participating firms.

SEC. 922. AUTHORITY TO SET STANDARDS FOR COMMERCIAL PRODUCTS.

Part B of title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.) is amended as follows:

(1) In the heading for such part, by inserting "AND COMMERCIAL" after "CONSUMER".

(2) In section 321(2), by inserting "or commercial" after "consumer".

(3) In paragraphs (4), (5), and (15) of section 321, by striking "consumer" each place it appears and inserting "covered".

(4) In section 322(a), by inserting "or commercial" after "consumer" the first place it appears in the material preceding paragraph (1).

(5) In section 322(b), by inserting "or commercial" after "consumer" each place it appears.

(6) In section 322 (b)(1)(B) and (b)(2)(A), by inserting "or per-business in the case of a commercial product" after "per-household" each place it appears.

(7) In section 322 (b)(2)(A), by inserting "or businesses in the case of commercial products" after "households" each place it appears.

(8) In section 322 (B)(2)(C)—

(A) by striking "term" and inserting "terms"; and

(B) by inserting "and 'business'" after "'household'".

(9) In section 323 (b)(1) (B) by inserting "or commercial" after "consumer".

SEC. 923. ADDITIONAL DEFINITIONS.

Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended by adding at the end the following:

"(32) The term 'battery charger' means a device that charges batteries for consumer products.

"(33) The term 'commercial refrigerator, freezer and refrigerator-freezer' means a refrigerator, freezer or refrigerator-freezer that—

"(A) is not a consumer product regulated under this Act; and

"(B) incorporates most components involved in the vapor-compression cycle and the refrigerated compartment in a single package.

"(34) The term 'external power supply' means an external power supply circuit that is used to convert household electric current into either DC current or lower-voltage AC current to operate a consumer product.

"(35) The term 'illuminated exit sign' means a sign that—

"(A) is designed to be permanently fixed in place to identify an exit; and

"(B) consists of—

"(i) an electrically powered integral light source that illuminates the legend 'EXIT' and any directional indicators; and

"(ii) provides contrast between the legend, any directional indicators, and the background.

"(36)(A) Except as provided in subsection (B), the term 'low-voltage dry-type transformer' means a transformer that—

"(i) has an input voltage of 600 volts or less;

"(ii) is air-cooled;

"(iii) does not use oil as a coolant; and

"(iv) is rated for operation at a frequency of 60 Hertz.

"(B) The term 'low-voltage dry-type transformer' does not include—

"(i) transformers with multiple voltage taps, with the highest voltage tap equaling at least 20 percent more than the lowest voltage tap;

"(ii) transformers that are designed to be used in a special purpose application, such as

transformers commonly known as drive transformers, rectifier transformers, autotransformers, Uninterruptible Power System transformers, impedance transformers, harmonic transformers, regulating transformers, sealed and nonventilating transformers, machine tool transformers, welding transformers, grounding transformers, or testing transformers; or

"(iii) any transformer not listed in clause (ii) that is excluded by the Secretary by rule because the transformer is designed for a special application and the application of standards to the transformer would not result in significant energy savings.

"(37) The term 'standby mode' means the lowest amount of electric power used by a household appliance when not performing its active functions, as defined on an individual product basis by the Secretary.

"(38) The term 'torchiere' means a portable electric lamp with a reflector bowl that directs light upward so as to give indirect illumination.

"(39) The term 'transformer' means a device consisting of two or more coils of insulated wire that transfers alternating current by electromagnetic in-

duction from one coil to another to change the original voltage or current value.

"(40) The term 'unit heater' means a self-contained fan-type heater designed to be installed within the heated space, except that such term does not include a warm air furnace.

"(41) The term 'traffic signal module' means a standard 8-inch (200mm) or 12-inch (300mm) traffic signal indication, consisting of a light source, a lens, and all other parts necessary for operation, that communicates movement messages to drivers through red, amber, and green colors.".

SEC. 924. ADDITIONAL TEST PROCEDURES.

(a) EXIT SIGNS.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293) is amended by adding at the end the following:

"(9) Test procedures for illuminated exit signs shall be based on the test method used under the Energy Star program of the Environmental Protection Agency for illuminated exit signs, as in effect on the date of enactment of this paragraph.

"(10) Test procedures for low voltage dry-type distribution transformers shall be based on the 'Standard Test Method for Measuring the Energy Consumption of Distribution Transformers' pre-

scribed by the National Electrical Manufacturers Association (NEMA TP 2–1998). The Secretary may review and revise this test procedure based on future revisions to such standard test method.

"(11) Test procedures for traffic signal modules shall be based on the test method used under the Energy Star program of the Environmental Protection Agency for traffic signal modules, as in effect on the date of enactment of this paragraph.".

(b) ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—Section 323 of the Energy Policy and Conservation Act (42 U.S.C. 6293) is further amended by adding at the end the following:

"(f) ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—The Secretary shall within 24 months after the date of enactment of this subsection prescribe testing requirements for suspended ceiling fans, refrigerated bottled or canned beverage vending machines, commercial unit heaters, and commercial refrigerators, freezers and refrigerator-freezers. Such testing requirements shall be based on existing test procedures used in industry to the extent practical and reasonable. In the case of suspended ceiling fans, such test procedures shall include efficiency at both maximum output and at an output no more than 50 percent of the maximum output.".

SEC. 925. ENERGY LABELING.

(a) RULEMAKING ON EFFECTIVENESS OF CONSUMER PRODUCT LABELING.—Paragraph (2) of section 324(a) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended by adding at the end the following:

"(F) Not later than 3 months after the date of enactment of this subparagraph, the Commission shall initiate a rulemaking to consider the effectiveness of the current consumer products labeling program in assisting consumers in making purchasing decisions and improving energy efficiency and to consider changes to the labeling rules that would improve the effectiveness of consumer product labels. Such rulemaking shall be completed within 15 months of the date of enactment of this subparagraph.".

(b) RULEMAKING ON LABELING FOR ADDITIONAL PRODUCTS.—Section 324(a) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)) is further amended by adding at the end the following:

"(5) The Secretary shall within 6 months after the date on which energy conservation standards are prescribed by the Secretary for covered products referred to in subsections (u) and (v) of section 325, and within 18 months of enactment of this paragraph for products referred to in subsections (w) through (y)

of section 325, prescribe, by rule, labeling requirements for such products. Labeling requirements adopted under this paragraph shall take effect on the same date as the standards set pursuant to sections 325 (v) through (y).".

SEC. 926. ENERGY STAR PROGRAM.

The Energy Policy and Conservation Act (42 U.S.C. 6201 and following) is amended by inserting after section 324 the following:

"ENERGY STAR PROGRAM

"SEC. 324A. There is established at the Department of Energy and the Environmental Protection Agency a program to identify and promote energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through labeling of products and buildings that meet the highest energy efficiency standards. Responsibilities under the program shall be divided between the Department of Energy and the Environmental Protection Agency consistent with the terms of agreements between the two agencies. The Administrator and the Secretary shall—

"(1) promote Energy Star compliant technologies as the preferred technologies in the marketplace for achieving energy efficiency and to reduce pollution;

"(2) work to enhance public awareness of the Energy Star label, including special outreach to small businesses;

"(3) preserve the integrity of the Energy Star label; and

"(4) solicit the comments of interested parties in establishing a new Energy Star product category or in revising a product category, and upon adoption of a new or revised product category provide an explanation of the decision that responds to significant public comments.".

SEC. 927. ENERGY CONSERVATION STANDARDS FOR CENTRAL AIR CONDITIONERS AND HEAT PUMPS.

Section 325(d)(3) of the Energy Policy and Conservation Act (42 U.S.C. 6295(d)) is amended by adding at the end the following:

"(C) REVISION OF STANDARDS.—Not later than 60 days after the date of enactment of this subparagraph, the Secretary shall amend the standards established under paragraph (1).".

SEC. 928. ENERGY CONSERVATION STANDARDS FOR ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.

Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended by adding at the end the following:

"(u) STANDBY MODE ELECTRIC ENERGY CONSUMPTION.—

"(1) INITIAL RULEMAKING.—(A) The Secretary shall, within 18 months after the date of enactment of this subsection, prescribe by notice and comment, definitions of standby mode and test procedures for the standby mode power use of battery chargers and external power supplies. In establishing these test procedures, the Secretary shall consider, among other factors, existing test procedures used for measuring energy consumption in standby mode and assess the current and projected future market for battery chargers and external power supplies. This assessment shall include estimates of the significance of potential energy savings from technical improvements to these products and suggested product classes for standards. Prior to the end of this time period, the Secretary shall hold a scoping workshop to discuss and receive comments on plans for developing energy conservation

standards for standby mode energy use for these products.

"(B) The Secretary shall, within 3 years after the date of enactment of this subsection, issue a final rule that determines whether energy conservation standards shall be promulgated for battery chargers and external power supplies or classes thereof. For each product class, any such standards shall be set at the lowest level of standby energy use that—

"(i) meets the criteria of subsections (o), (p), (q), (r), (s) and (t); and

"(ii) will result in significant overall annual energy savings, considering both standby mode and other operating modes.

"(2) DESIGNATION OF ADDITIONAL COVERED PRODUCTS.—(A) Not later than 180 days after the date of enactment of this subsection, the Secretary shall publish for public comment and public hearing a notice to determine whether any noncovered products should be designated as covered products for the purpose of instituting a rulemaking under this section to determine whether an energy conservation standard restricting standby mode energy consumption, should be promulgated; providing that any restriction on

standby mode energy consumption shall be limited to major sources of such consumption.

"(B) In making the determinations pursuant to subparagraph (A) of whether to designate new covered products and institute rulemakings, the Secretary shall, among other relevant factors and in addition to the criteria in section 322(b), consider—

"(i) standby mode power consumption compared to overall product energy consumption; and

"(ii) the priority and energy savings potential of standards which may be promulgated under this subsection compared to other required rulemakings under this section and the available resources of the Department to conduct such rulemakings.

"(C) Not later than 1 year after the date of enactment of this subsection, the Secretary shall issue a determination of any new covered products for which he intends to institute rulemakings on standby mode pursuant to this section and he shall state the dates by which he intends to initiate those rulemakings.

"(3) REVIEW OF STANDBY ENERGY USE IN COVERED PRODUCTS.—In determining pursuant to section 323 whether test procedures and energy conserva-

tion standards pursuant to section 325 should be revised, the Secretary shall consider for covered products which are major sources of standby mode energy consumption whether to incorporate standby mode into such test procedures and energy conservation standards, taking into account, among other relevant factors, the criteria for non-covered products in subparagraph (B) of this subsection.

"(4) RULEMAKING FOR STANDBY MODE.—(A) Any rulemaking instituted under this subsection or for covered products under this section which restricts standby mode power consumption shall be subject to the criteria and procedures for issuing energy conservation standards set forth in section 325 and the criteria set forth in paragraph 2(B) of this subsection.

"(B) No standard can be proposed for new covered products or covered products in a standby mode unless the Secretary has promulgated applicable test procedures for each product pursuant to section 323.

"(C) The provisions of section 327 shall apply to new covered products which are subject to the rulemakings for standby mode after a final rule has been issued.

"(5) EFFECTIVE DATE.—Any standard promulgated under this subsection shall be applicable to

products manufactured or imported 3 years after the date of promulgation.

"(6) VOLUNTARY PROGRAMS TO REDUCE STANDBY MODE ENERGY USE.—The Secretary and the Administrator shall collaborate and develop programs, including programs pursuant to section 324A and other voluntary industry agreements or codes of conduct, which are designed to reduce standby mode energy use.

"(v) SUSPENDED CEILING FANS, VENDING MACHINES, UNIT HEATERS, AND COMMERCIAL REFRIGERATORS, FREEZERS AND REFRIGERATOR-FREEZERS.—The Secretary shall within 24 months after the date on which testing requirements are prescribed by the Secretary pursuant to section 323(f), prescribe, by rule, energy conservation standards for suspended ceiling fans, refrigerated bottled or canned beverage vending machines, unit heaters, and commercial refrigerators, freezers and refrigerator-freezers. In establishing standards under this subsection, the Secretary shall use the criteria and procedures contained in subsections (l) and (m). Any standard prescribed under this subsection shall apply to products manufactured 3 years after the date of publication of a final rule establishing such standard.

"(w) ILLUMINATED EXIT SIGNS.—Illuminated exit signs manufactured on or after January 1, 2005 shall meet the Energy Star Program performance requirements for illuminated exit signs prescribed by the Environmental Protection Agency as in effect on the date of enactment of this subsection.

"(x) TORCHIERES.—Torchieres manufactured on or after January 1, 2005—

"(1) shall consume not more than 190 watts of power; and

"(2) shall not be capable of operating with lamps that total more than 190 watts.

"(y) LOW VOLTAGE DRY-TYPE TRANSFORMERS.—The efficiency of low voltage dry-type transformers manufactured on or after January 1, 2005 shall be the Class I Efficiency Levels for low voltage dry-type transformers specified in Table 4–2 of the 'Guide for Determining Energy Efficiency for Distribution Transformers' published by the National Electrical Manufacturers Association (NEMA TP–1–1996).

"(z) TRAFFIC SIGNAL MODULES.—Traffic signal modules manufactured on or after January 1, 2006 shall meet the performance requirements used under the Energy Star program of the Environmental Protection Agency for traffic signals, as in effect on the date of enactment of this para-

graph, and shall be installed with compatible, electrically-connected signal control interface devices and conflict monitoring systems.".

SEC. 929. CONSUMER EDUCATION ON ENERGY EFFICIENCY BENEFITS OF AIR CONDITIONING, HEATING, AND VENTILATION MAINTENANCE.

Section 337 of the Energy Policy and Conservation Act (42 U.S.C. 6307) is amended by adding at the end the following:

"(c) HVAC MAINTENANCE.—(1) For the purpose of ensuring that installed air conditioning and heating systems operate at their maximum rated efficiency levels, the Secretary shall, within 180 days of the date of enactment of this subsection, carry out a program to educate homeowners and small business owners concerning the energy savings resulting from properly conducted maintenance of air conditioning, heating, and ventilating systems.

"(2) The Secretary may carry out the program in cooperation with industry trade associations, industry members, and energy efficiency organizations.

"(d) SMALL BUSINESS EDUCATION AND ASSISTANCE.—The Administrator of the Small Business Administration, in consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency, shall develop and coordinate a Government-wide program,

building on the existing Energy Star for Small Business Program, to assist small business to become more energy efficient, understand the cost savings obtainable through efficiencies, and identify financing options for energy efficiency upgrades. The Secretary and the Administrator shall make the program information available directly to small businesses and through other Federal agencies, including the Federal Emergency Management Agency, and the Department of Agriculture.''.

SEC. 930. STUDY OF ENERGY EFFICIENCY STANDARDS.

The Secretary of Energy shall contract with the National Academy of Sciences for a study, to be completed within 1 year of enactment of this Act, to examine whether the goals of energy efficiency standards are best served by measurement of energy consumed, and efficiency improvements, at the actual site of energy consumption, or through the full fuel cycle, beginning at the source of energy production. The Secretary shall submit the report to the Congress.

Subtitle D—Housing Efficiency

SEC. 931. CAPACITY BUILDING FOR ENERGY EFFICIENT, AFFORDABLE HOUSING.

Section 4(b) of the HUD Demonstration Act of 1993 (42 U.S.C. 9816 note) is amended—

(1) in paragraph (1), by inserting before the semicolon at the end the following: '', including capa-

bilities regarding the provision of energy efficient, affordable housing and residential energy conservation measures"; and

(2) in paragraph (2), by inserting before the semicolon the following: ", including such activities relating to the provision of energy efficient, affordable housing and residential energy conservation measures that benefit low-income families".

SEC. 932. INCREASE OF CDBG PUBLIC SERVICES CAP FOR ENERGY CONSERVATION AND EFFICIENCY ACTIVITIES.

Section 105(a)(8) of the Housing and Community Development Act of 1974 (42 U.S.C. 5305(a)(8)) is amended—

(1) by inserting "or efficiency" after "energy conservation";

(2) by striking ", and except that" and inserting "; except that"; and

(3) by inserting before the period at the end the following: "; and except that each percentage limitation under this paragraph on the amount of assistance provided under this title that may be used for the provision of public services is hereby increased by 10 percent, but such percentage increase may be used only for the provision of public services concerning energy conservation or efficiency".

SEC. 933. FHA MORTGAGE INSURANCE INCENTIVES FOR ENERGY EFFICIENT HOUSING.

(a) SINGLE FAMILY HOUSING MORTGAGE INSURANCE.—Section 203(b)(2) of the National Housing Act (12 U.S.C. 1709(b)(2)) is amended, in the first undesignated paragraph beginning after subparagraph (B)(iii) (relating to solar energy systems)—

(1) by inserting "or paragraph (10)"; and

(2) by striking "20 percent" and inserting "30 percent".

(b) MULTIFAMILY HOUSING MORTGAGE INSURANCE.—Section 207(c) of the National Housing Act (12 U.S.C. 1713(c)) is amended, in the second undesignated paragraph beginning after paragraph (3) (relating to solar energy systems and residential energy conservation measures), by striking "20 percent" and inserting "30 percent".

(c) COOPERATIVE HOUSING MORTGAGE INSURANCE.—Section 213(p) of the National Housing Act (12 U.S.C. 1715e(p)) is amended by striking "20 per centum" and inserting "30 percent".

(d) REHABILITATION AND NEIGHBORHOOD CONSERVATION HOUSING MORTGAGE INSURANCE.—Section 220(d)(3)(B)(iii) of the National Housing Act (12 U.S.C. 1715k(d)(3)(B)(iii)) is amended by striking "20 per centum" and inserting "30 percent".

(e) LOW-INCOME MULTIFAMILY HOUSING MORTGAGE INSURANCE.—Section 221(k) of the National Housing Act (12 U.S.C. 1715l(k)) is amended by striking "20 per centum" and inserting "30 percent".

(f) ELDERLY HOUSING MORTGAGE INSURANCE.—The proviso at the end of section 213(c)(2) of the National Housing Act (12 U.S.C. 1715v(c)(2)) is amended by striking "20 per centum" and inserting "30 percent".

(g) CONDOMINIUM HOUSING MORTGAGE INSURANCE.—Section 234(j) of the National Housing Act (12 U.S.C. 1715y(j)) is amended by striking "20 per centum" and inserting "30 percent".

SEC. 934. PUBLIC HOUSING CAPITAL FUND.

Section 9(d)(1) of the United States Housing Act of 1937 (42 U.S.C. 1437g(d)(1)) is amended—

(1) in subparagraph (I), by striking "and" at the end;

(2) in subparagraph (K), by striking the period at the end and inserting "; and"; and

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

"(L) improvement of energy and water-use efficiency by installing fixtures and fittings that conform to the American Society of Mechanical Engineers/American National Standards Insti-

tute standards A112.19.2–1998 and A112.18.1–2000, or any revision thereto, applicable at the time of installation, and by increasing energy efficiency and water conservation by such other means as the Secretary determines are appropriate.".

SEC. 935. GRANTS FOR ENERGY-CONSERVING IMPROVEMENTS FOR ASSISTED HOUSING.

Section 251(b)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8231(1)) is amended—

(1) by striking "financed with loans" and inserting "assisted";

(2) by inserting after "1959," the following: "which are eligible multifamily housing projects (as such term is defined in section 512 of the Multifamily Assisted Housing Reform and Affordability Act of 1997 (42 U.S.C. 1437f note) and are subject to a mortgage restructuring and rental assistance sufficiency plans under such Act,"; and

(3) by inserting after the period at the end of the first sentence the following new sentence: "Such improvements may also include the installation of energy and water conserving fixtures and fittings that conform to the American Society of Mechanical Engineers/American National Standards Institute stand-

ards A112.19.2–1998 and A112.18.1–2000, or any revision thereto, applicable at the time of installation.".

SEC. 936. NORTH AMERICAN DEVELOPMENT BANK.

Part 2 of subtitle D of title V of the North American Free Trade Agreement Implementation Act (22 U.S.C. 290m–290m–3) is amended by adding at the end the following:

"SEC. 545. SUPPORT FOR CERTAIN ENERGY POLICIES.

"Consistent with the focus of the Bank's Charter on environmental infrastructure projects, the Board members representing the United States should use their voice and vote to encourage the Bank to finance projects related to clean and efficient energy, including energy conservation, that prevent, control, or reduce environmental pollutants or contaminants.".

SEC. 937. CAPITAL FUND.

Section 9 of the United States Housing Act of 1937 (42 U.S.C. 1437g), as amended by section 934, is amended—

(1) in subsection (d)(1)—

(A) in subparagraph (L), by striking the period at the end and inserting "; and";

(B) by redesignating subparagraph (L) as subparagraph (K); and

(C) by adding at the end the following:

"(L) integrated utility management and capital planning to maximize energy conservation and efficiency measures."; and

(2) in subsection (e)(2)(C)—

(A) by striking "The" and inserting the following:

"(i) IN GENERAL.—The"; and

(B) by adding at the end the following:

"(ii) THIRD PARTY CONTRACTS.—Contracts described in clause (i) may include contracts for equipment conversions to less costly utility sources, projects with resident paid utilities, adjustments to frozen base year consumption, including systems repaired to meet applicable building and safety codes and adjustments for occupancy rates increased by rehabilitation.

"(iii) TERM OF CONTRACT.—The total term of a contract described in clause (i) shall be for not more than 20 years to allow longer payback periods for retrofits, including but not limited to windows, heating system replacements, wall insulation, site-based generations, and advanced energy

savings technologies, including renewable energy generation.".

SEC. 938. ENERGY-EFFICIENT APPLIANCES.

A public housing agency shall purchase energy-efficient appliances that are Energy Star products as defined in section 552 of the National Energy Policy and Conservation Act (as amended by this Act) when the purchase of energy-efficient appliances is cost-effective to the public housing agency.

SEC. 939. ENERGY EFFICIENCY STANDARDS.

Section 109 of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 12709) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) by striking "the date of the enactment of the Energy Policy Act of 1992" and inserting "September 30, 2002";

(ii) in subparagraph (A), by striking "and" at the end;

(iii) in subparagraph (B), by striking the period at the end and inserting a semicolon; and

(iv) by adding at the end the following:

"(C) rehabilitation and new construction of public and assisted housing funded by HOPE VI

revitalization grants, established under section 24 of the United States Housing Act of 1937 (42 U.S.C. 1437v), where such standards are determined to be cost effective by the Secretary of Housing and Urban Development; and

(B) in paragraph (2), by striking "Council of American" and all that follows through "life-cycle cost basis" and inserting "2000 International Energy Conservation Code";

(2) in subsection (b)—

(A) by striking "the date of the enactment of the Energy Policy Act of 1992" and inserting "September 30, 2002"; and

(B) by striking "CABO" and all that follows through "1989" and inserting "the 2000 International Energy Conservation Code"; and

(3) in subsection (c)—

(A) in the heading, by striking "MODEL ENERGY CODE" and inserting "THE INTERNATIONAL ENERGY CONSERVATION CODE"; and

(B) by striking "CABO" and all that follows through "1989" and inserting "the 2000 International Energy Conservation Code".

SEC. 940. ENERGY STRATEGY FOR HUD.

(a) IN GENERAL.—The Secretary of Housing and Urban Development shall develop and implement an integrated strategy to reduce utility expenses through cost-effective energy conservation and efficiency measures, design and construction in public and assisted housing.

(b) ENERGY MANAGEMENT OFFICE.—The Secretary of Housing and Urban Development shall create an office at the Department of Housing and Urban Development for utility management, energy efficiency, and conservation, with responsibility for implementing the strategy developed under this section, including development of a centralized database that monitors public housing energy usage, and development of energy reduction goals and incentives for public housing agencies. The Secretary shall submit an annual report to Congress on the strategy.

Subtitle E—Rural and Remote Communities

SEC. 941. SHORT TITLE.

This subtitle may be cited as the "Rural and Remote Community Fairness Act".

SEC. 942. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress finds that—

(1) a modern infrastructure, including energy-efficient housing, electricity, telecommunications, bulk fuel, wastewater and potable water service, is a nec-

essary ingredient of a modern society and development of a prosperous economy;

(2) the Nation's rural and remote communities face critical social, economic and environmental problems, arising in significant measure from the high cost of infrastructure development in sparsely populated and remote areas, that are not adequately addressed by existing Federal assistance programs;

(3) in the past, Federal assistance has been instrumental in establishing electric and other utility service in many developing regions of the Nation, and that Federal assistance continues to be appropriate to ensure that electric and other utility systems in rural areas conform with modern standards of safety, reliability, efficiency and environmental protection; and

(4) the future welfare of the Nation and the well-being of its citizens depend on the establishment and maintenance of viable rural and remote communities as social, economic and political entities.

(b) PURPOSE.—The purpose of this subtitle is the development and maintenance of viable rural and remote communities through the provision of efficient housing, and reasonably priced and environmentally sound energy, water, wastewater, and bulk fuel, telecommunications and utility services to those communities that do not have those

services or who currently bear costs of those services that are significantly above the national average.

SEC. 943. DEFINITIONS.

As used in this subtitle:

(1) The term "unit of general local government" means any city, county, town, township, parish, village, borough (organized or unorganized) or other general purpose political subdivision of a State, Guam, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, the Virgin Islands, and American Samoa, a combination of such political subdivisions that is recognized by the Secretary; and the District of Columbia; or any other appropriate organization of citizens of a rural and remote community that the Secretary may identify.

(2) The term "population" means total resident population based on data compiled by the United States Bureau of the Census and referable to the same point or period in time.

(3) The term "Native American group" means any Indian tribe, band, group, and nation, including Alaska Indians, Aleuts, and Eskimos, and any Alaskan Native village, of the United States, which is con-

sidered an eligible recipient under the Indian Self-Determination and Education Assistance Act (Public Law 93–638) or was considered an eligible recipient under chapter 67 of title 31, United States Code, prior to the repeal of such chapter.

(4) The term "Secretary" means the Secretary of Housing and Urban Development, the Secretary of Agriculture, the Secretary of the Interior or the Secretary of Energy, as appropriate.

(5) The term "rural and remote community" means a unit of local general government or Native American group which is served by an electric utility that has 10,000 or less customers with an average retail cost per kilowatt hour of electricity that is equal to or greater than 150 percent of the average retail cost per kilowatt hour of electricity for all consumers in the United States, as determined by data provided by the Energy Information Administration of the Department of Energy.

(6) The term "alternative energy sources" include nontraditional means of providing electrical energy, including, but not limited to, wind, solar, biomass, municipal solid waste, hydroelectric, geothermal and tidal power.

(7) The term "average retail cost per kilowatt hour of electricity" has the same meaning as "average revenue per kilowatt hour of electricity" as defined by the Energy Information Administration of the Department of Energy.

SEC. 944. AUTHORIZATION OF APPROPRIATIONS.

The Secretary is authorized to make grants to rural and remote communities to carry out activities in accordance with the provisions of this subtitle. For purposes of assistance under section 947, there are authorized to be appropriated $100,000,000 for each of fiscal years 2003 through 2009.

SEC. 945. STATEMENT OF ACTIVITIES AND REVIEW.

(a) STATEMENT OF OBJECTIVES AND PROJECTED USE.—Prior to the receipt in any fiscal year of a grant under section 947 by any rural and remote community, the grantee shall have prepared and submitted to the Secretary of the agency providing funding a final statement of rural and remote community development objectives and projected use of funds.

(b) PUBLIC NOTICE.—In order to permit public examination and appraisal of such statements, to enhance the public accountability of grantees, and to facilitate coordination of activities with different levels of government, the grantee shall in a timely manner—

(1) furnish citizens information concerning the amount of funds available for rural and remote community development activities and the range of activities that may be undertaken;

(2) publish a proposed statement in such manner to afford affected citizens an opportunity to examine its content and to submit comments on the proposed statement and on the community development performance of the grantee;

(3) provide citizens with reasonable access to records regarding the past use of funds received under section 947 by the grantee; and

(4) provide citizens with reasonable notice of, and opportunity to comment on, any substantial change proposed to be made in the use of funds received under section 947 from one eligible activity to another.

The final statement shall be made available to the public, and a copy shall be furnished to the appropriate Secretary. Any final statement of activities may be modified or amended from time to time by the grantee in accordance with the same. Procedures required in this paragraph are for the preparation and submission of such statement.

(c) PERFORMANCE AND EVALUATION REPORT.—Each grantee shall submit to the appropriate Secretary, at a time

determined by the Secretary, a performance and evaluation report, concerning the use of funds made available under section 947, together with an assessment by the grantee of the relationship of such use to the objectives identified in the grantee's statement under subsection (a) and to the requirements of subsection (b). The grantee's report shall indicate its programmatic accomplishments, the nature of and reasons for any changes in the grantee's program objectives, and indications of how the grantee would change its programs as a result of its experiences.

(d) RETENTION OF INCOME.—

(1) IN GENERAL.—Any rural and remote community may retain any program income that is realized from any grant made by the Secretary under section 947 if—

(A) such income was realized after the initial disbursement of the funds received by such unit of general local government under such section; and

(B) such unit of general local government has agreed that it will utilize the program income for eligible rural and remote community development activities in accordance with the provisions of this title.

(2) EXCEPTION.—The Secretary may, by regulation, exclude from consideration as program income any amounts determined to be so small that compliance with the subsection creates an unreasonable administrative burden on the rural and remote community.

SEC. 946. ELIGIBLE ACTIVITIES.

(a) ACTIVITIES INCLUDED.—Eligible activities assisted under this subtitle may include only—

(1) weatherization and other cost-effective energy-related repairs of homes and other buildings;

(2) the acquisition, construction, repair, reconstruction, or installation of reliable and cost-efficient facilities for the generation, transmission or distribution of electricity, and telecommunications, for consumption in a rural and remote community or communities;

(3) the acquisition, construction, repair, reconstruction, remediation or installation of facilities for the safe storage and efficient management of bulk fuel by rural and remote communities, and facilities for the distribution of such fuel to consumers in a rural or remote community;

(4) facilities and training to reduce costs of maintaining and operating generation, distribution

or transmission systems to a rural and remote community or communities;

(5) the institution of professional management and maintenance services for electricity generation, transmission or distribution to a rural and remote community or communities;

(6) the investigation of the feasibility of alternate energy sources for a rural and remote community or communities;

(7) acquisition, construction, repair, reconstruction, operation, maintenance, or installation of facilities for water or wastewater service;

(8) the acquisition or disposition of real property (including air rights, water rights, and other interests therein) for eligible rural and remote community development activities; and

(9) activities necessary to develop and implement a comprehensive rural and remote development plan, including payment of reasonable administrative costs related to planning and execution of rural and remote community development activities.

(b) ACTIVITIES UNDERTAKEN THROUGH ELECTRIC UTILITIES.—Eligible activities may be undertaken either directly by the rural and remote community, or by the rural and remote community through local electric utilities.

SEC. 947. ALLOCATION AND DISTRIBUTION OF FUNDS.

For each fiscal year, of the amount approved in an appropriation Act under section 903 for grants in any year, the Secretary shall distribute to each rural and remote community which has filed a final statement of rural and remote community development objectives and projected use of funds under section 945, an amount which shall be allocated among the rural and remote communities that filed a final statement of rural and remote community development objectives and projected use of funds under section 945 proportionate to the percentage that the average retail price per kilowatt hour of electricity for all classes of consumers in the rural and remote community exceeds the national average retail price per kilowatt hour for electricity for all consumers in the United States, as determined by data provided by the Department of Energy's Energy Information Administration. In allocating funds under this section, the Secretary shall give special consideration to those rural and remote communities that increase economies of scale through consolidation of services, affiliation and regionalization of eligible activities under this title.

SEC. 948. RURAL AND REMOTE COMMUNITY ELECTRIFICATION GRANTS.

Section 313 of the Rural Electrification Act of 1936 (7 U.S.C. 940c) is amended by adding after subsection (b) the following:

"(c) RURAL AND REMOTE COMMUNITIES ELECTRIFICATION GRANTS.—The Secretary of Agriculture, in consultation with the Secretary of Energy and the Secretary of the Interior, may provide grants under this Act for the purpose of increasing energy efficiency, siting or upgrading transmission and distribution lines, or providing or modernizing electric facilities to—

"(1) a unit of local government of a State or territory; or

"(2) an Indian tribe or Tribal College or University as defined in section 316(b)(3) of the Higher Education Act (20 U.S.C. 1059c(b)(3)).

"(d) GRANT CRITERIA.—The Secretary shall make grants based on a determination of cost-effectiveness and most effective use of the funds to achieve the stated purposes of this section.

"(e) PREFERENCE.—In making grants under this section, the Secretary shall give a preference to renewable energy facilities.

"(f) DEFINITION.—For purposes of this section, the term 'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is

recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

"(e) AUTHORIZATION.—For the purpose of carrying out subsection (c), there are authorized to be appropriated to the Secretary $20,000,000 for each of the 7 fiscal years following the date of enactment of this subsection.".

SEC. 949. ADDITIONAL AUTHORIZATION OF APPROPRIATIONS.

There is hereby authorized to be appropriated $5,000,000 for each of fiscal years 2003 through 2009 to the Denali Commission established by the Denali Commission Act of 1998 (42 U.S.C. 3121 note) for the purposes of funding the power cost equalization program.

SEC. 950. RURAL RECOVERY COMMUNITY DEVELOPMENT BLOCK GRANTS.

(a) FINDINGS; PURPOSE.—

(1) FINDINGS.—Congress finds that—

(A) a modern infrastructure, including affordable housing, wastewater and water service, and advanced technology capabilities is a necessary ingredient of a modern society and development of a prosperous economy with minimal environmental impacts;

(B) the Nation's rural areas face critical social, economic, and environmental problems, arising in significant measure from the growing cost of infrastructure development in rural areas that suffer from low per capita income and high rates of outmigration and are not adequately addressed by existing Federal assistance programs; and

(C) the future welfare of the Nation and the well-being of its citizens depend on the establishment and maintenance of viable rural areas as social, economic, and political entities.

(2) PURPOSE.—The purpose of this section is to provide for the development and maintenance of viable rural areas through the provision of affordable housing and community development assistance to eligible units of general local government and eligible Native American groups in rural areas with excessively high rates of outmigration and low per capita income levels.

(b) DEFINITIONS.—In this section:

(1) ELIGIBLE UNIT OF GENERAL LOCAL GOVERNMENT.—The term "eligible unit of general local government" means a unit of general local government that is the governing body of a rural recovery area.

(2) ELIGIBLE INDIAN TRIBE.—The term "eligible Indian tribe" means the governing body of an Indian tribe that is located in a rural recovery area.

(3) GRANTEE.—The term "grantee" means an eligible unit of general local government or eligible Indian tribe that receives a grant under this section.

(4) NATIVE AMERICAN GROUP.—The term "Native American group" means any Indian tribe, band, group, and nation, including Alaska Indians, Aleuts, and Eskimos, and any Alaskan Native village, of the United States, which is considered an eligible recipient under the Indian Self-Determination and Education Assistance Act (Public Law 93–638) or was considered an eligible recipient under chapter 67 of title 31, United States Code, prior to the repeal of such chapter.

(5) RURAL RECOVERY AREA.—The term "rural recovery area" means any geographic area represented by a unit of general local government or a Native American group—

(A) the borders of which are not adjacent to a metropolitan area;

(B) in which—

(i) the population outmigration level equals or exceeds 1 percent over the most re-

cent 5 year period, as determined by the Secretary of Housing and Urban Development; and

(ii) the per capita income is less than that of the national nonmetropolitan average; and

(C) that does not include a city with a population of more than 15,000.

(6) UNIT OF GENERAL LOCAL GOVERNMENT.—

(A) IN GENERAL.—The term "unit of general local government" means any city, county, town, township, parish, village, borough (organized or unorganized), or other general purpose political subdivision of a State; Guam, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, Puerto Rico, and American Samoa, or a general purpose political subdivision thereof; a combination of such political subdivisions that, except as provided in section 106(d)(4), is recognized by the Secretary; and the District of Columbia.

(B) OTHER ENTITIES INCLUDED.—The term also includes a State or a local public body or agency, community association, or other entity, that is approved by the Secretary for the purpose

of providing public facilities or services to a new community.

(7) SECRETARY.—The term "Secretary" means the Secretary of Housing and Urban Development, the Secretary of Agriculture, the Secretary of the Interior or the Secretary of Energy, as appropriate.

(c) GRANT AUTHORITY.—The Secretary may make grants in accordance with this section to eligible units of general local government, Native American groups and eligible Indian tribes that meet the requirements of subsection (d) to carry out eligible activities described in subsection (f).

(d) ELIGIBILITY REQUIREMENTS.—

(1) STATEMENT OF RURAL DEVELOPMENT OBJECTIVES.—In order to receive a grant under this section for a fiscal year, an eligible unit of general local government, Native American group or eligible Indian tribe—

(A) shall—

(i) publish a proposed statement of rural development objectives and a description of the proposed eligible activities described in subsection (f) for which the grant will be used; and

(ii) afford residents of the rural recovery area served by the eligible unit of general local government, Native American groups or eligible Indian tribe with an opportunity to examine the contents of the proposed statement and the proposed eligible activities published under clause (i), and to submit comments to the eligible unit of general local government, Native American group or eligible Indian tribe, as applicable, on the proposed statement and the proposed eligible activities, and the overall community development performance of the eligible unit of general local government, Native American groups or eligible Indian tribe, as applicable; and

(B) based on any comments received under subparagraph (A)(ii), prepare and submit to the Secretary—

(i) a final statement of rural development objectives;

(ii) a description of the eligible activities described in subsection (f) for which a grant received under this section will be used; and

(iii) a certification that the eligible unit of general local government, Native American groups or eligible Indian tribe, as applicable, will comply with the requirements of paragraph (2).

(2) PUBLIC NOTICE AND COMMENT.—In order to enhance public accountability and facilitate the coordination of activities among different levels of government, an eligible unit of general local government, Native American groups or eligible Indian tribe that receives a grant under this section shall, as soon as practicable after such receipt, provide the residents of the rural recovery area served by the eligible unit of general local government, Native American groups or eligible Indian tribe, as applicable, with—

(A) a copy of the final statement submitted under paragraph (1)(B);

(B) information concerning the amount made available under this section and the eligible activities to be undertaken with that amount;

(C) reasonable access to records regarding the use of any amounts received by the eligible unit of general local government, Native American groups or eligible Indian tribe under this section in any preceding fiscal year; and

(D) reasonable notice of, and opportunity to comment on, any substantial change proposed to be made in the use of amounts received under this section from one eligible activity to another.

(e) DISTRIBUTION OF GRANTS.—

(1) IN GENERAL.—In each fiscal year, the Secretary shall distribute to each eligible unit of general local government, Native American groups and eligible Indian tribe that meets the requirements of subsection (d)(1) a grant in an amount described in paragraph (2).

(2) AMOUNT.—Of the total amount made available to carry out this section in each fiscal year, the Secretary shall distribute to each grantee the amount equal to the greater of—

(A) the pro rata share of the grantee, as determined by the Secretary, based on the combined annual population outmigration level (as determined by the Secretary of Housing and Urban Development) and the per capita income for the rural recovery area served by the grantee; or

(B) $200,000.

(f) ELIGIBLE ACTIVITIES.—Each grantee shall use amounts received under this section for one or more of the

following eligible activities, which may be undertaken either directly by the grantee, or by any local economic development corporation, regional planning district, nonprofit community development corporation, or statewide development organization authorized by the grantee—

(1) the acquisition, construction, repair, reconstruction, operation, maintenance, or installation of facilities for water and wastewater service or any other infrastructure needs determined to be critical to the further development or improvement of a designated industrial park;

(2) the acquisition or disposition of real property (including air rights, water rights, and other interests therein) for rural community development activities;

(3) the development of telecommunications infrastructure within a designated industrial park that encourages high technology business development in rural areas;

(4) activities necessary to develop and implement a comprehensive rural development plan, including payment of reasonable administrative costs related to planning and execution of rural development activities; or

(5) affordable housing initiatives.

(g) PERFORMANCE AND EVALUATION REPORT.—

(1) IN GENERAL.—Each grantee shall annually submit to the appropriate Secretary a performance and evaluation report, concerning the use of amounts received under this section.

(2) CONTENTS.—Each report submitted under paragraph (1) shall include a description of—

(A) the eligible activities carried out by the grantee with amounts received under this section, and the degree to which the grantee has achieved the rural development objectives included in the final statement submitted under subsection (d)(1);

(B) the nature of and reasons for any change in the rural development objectives or the eligible activities of the grantee after submission of the final statement under subsection (d)(1); and

(C) any manner in which the grantee would change the rural development objectives of the grantee as a result of the experience of the grantee in administering amounts received under this section.

(h) RETENTION OF INCOME.—A grantee may retain any income that is realized from the grant, if—

(1) the income was realized after the initial disbursement of amounts to the grantee under this section; and

(2) the—

(A) grantee agrees to utilize the income for one or more eligible activities; or

(B) amount of the income is determined by the Secretary to be so small that compliance with subparagraph (A) would create an unreasonable administrative burden on the grantee.

(i) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $100,000,000 for each of fiscal years 2003 through 2009.

DIVISION D—INTEGRATION OF ENERGY POLICY AND CLIMATE CHANGE POLICY

TITLE X—NATIONAL CLIMATE CHANGE POLICY

Subtitle A—Sense of Congress

SEC. 1001. SENSE OF CONGRESS ON CLIMATE CHANGE.

(a) FINDINGS.—The Congress makes the following findings:

(1) Evidence continues to build that increases in atmospheric concentrations of man-made greenhouse gases are contributing to global climate change.

(2) The Intergovernmental Panel on Climate Change (IPCC) has concluded that "there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities" and that the Earth's average temperature can be expected to rise between 2.5 and 10.4 degrees Fahrenheit in this century.

(3) The National Academy of Sciences confirmed the findings of the IPCC, stating that "the IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase of greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue" and that "there is general agreement that the observed warming is real and particularly strong within the past twenty years". The National Academy of Sciences also noted that "because there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of greenhouse gases and aerosols, current estimates of the magnitude of future warming should be regarded as tentative and subject to future adjustments upward or downward".

(4) The IPCC has stated that in the last 40 years, the global average sea level has risen, ocean

heat content has increased, and snow cover and ice extent have decreased, which threatens to inundate low-lying island nations and coastal regions throughout the world.

(5) In October 2000, a United States Government report found that global climate change may harm the United States by altering crop yields, accelerating sea-level rise, and increasing the spread of tropical infectious diseases.

(6) In 1992, the United States ratified the United Nations Framework Convention on Climate Change (UNFCCC), the ultimate objective of which is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner".

(7) The UNFCCC stated in part that the Parties to the Convention are to implement policies "with the aim of returning . . . to their 1990 levels anthropogenic emissions of carbon dioxide and other greenhouse gases" under the principle that "policies and

measures . . . should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change".

(8) There is a shared international responsibility to address this problem, as industrial nations are the largest historic and current emitters of greenhouse gases and developing nations' emissions will significantly increase in the future.

(9) The UNFCCC further stated that "developed country Parties should take the lead in combating climate change and the adverse effects thereof", as these nations are the largest historic and current emitters of greenhouse gases. The UNFCCC also stated that "steps required to understand and address climate change will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings in these areas".

(10) Senate Resolution 98 of the One Hundred Fifth Congress, which expressed that developing nations must also be included in any future, binding climate change treaty and such a treaty must not re-

sult in serious harm to the United States economy, should not cause the United States to abandon its shared responsibility to help reduce the risks of climate change and its impacts. Future international efforts in this regard should focus on recognizing the equitable responsibilities for addressing climate change by all nations, including commitments by the largest developing country emitters in a future, binding climate change treaty.

(11) It is the position of the United States that it will not interfere with the plans of any nation that chooses to ratify and implement the Kyoto Protocol to the UNFCCC.

(12) American businesses need to know how governments worldwide will address the risks of climate change.

(13) The United States benefits from investments in the research, development and deployment of a range of clean energy and efficiency technologies that can reduce the risks of climate change and its impacts and that can make the United States economy more productive, bolster energy security, create jobs, and protect the environment.

(b) SENSE OF CONGRESS.—It is the sense of the United States Congress that the United States should demonstrate

international leadership and responsibility in reducing the health, environmental, and economic risks posed by climate change by—

(1) taking responsible action to ensure significant and meaningful reductions in emissions of greenhouse gases from all sectors;

(2) creating flexible international and domestic mechanisms, including joint implementation, technology deployment, tradable credits for emissions reductions and carbon sequestration projects that will reduce, avoid, and sequester greenhouse gas emissions; and

(3) participating in international negotiations, including putting forth a proposal to the Conference of the Parties, with the objective of securing United States participation in a future binding climate change Treaty in a manner that is consistent with the environmental objectives of the UNFCCC, that protects the economic interests of the United States, and recognizes the shared international responsibility for addressing climate change, including developing country participation.

Subtitle B—Climate Change Strategy

SEC. 1011. SHORT TITLE.

This subtitle may be cited as the "Climate Change Strategy and Technology Innovation Act of 2002".

SEC. 1012. DEFINITIONS.

In this subtitle:

(1) CLIMATE-FRIENDLY TECHNOLOGY.—The term "climate-friendly technology" means any energy supply or end-use technology that, over the life of the technology and compared to similar technology in commercial use as of the date of enactment of this Act—

(A) results in reduced emissions of greenhouse gases;

(B) may substantially lower emissions of other pollutants; and

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

(2) DEPARTMENT.—The term "Department" means the Department of Energy.

(3) DEPARTMENT OFFICE.—The term "Department Office" means the Office of Climate Change Technology of the Department established by section 1015(a).

(4) FEDERAL AGENCY.—The term "Federal agency" has the meaning given the term "agency" in section 551 of title 5, United States Code.

(5) GREENHOUSE GAS.—The term "greenhouse gas" means—

(A) an anthropogenic gaseous constituent of the atmosphere (including carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and tropospheric ozone) that absorbs and re-emits infrared radiation and influences climate; and

(B) an anthropogenic aerosol (such as black soot) that absorbs solar radiation and influences climate.

(6) INTERAGENCY TASK FORCE.—The term "Interagency Task Force" means the Interagency Task Force established under section 1014(e).

(7) KEY ELEMENT.—The term "key element", with respect to the Strategy, means—

(A) definition of interim emission mitigation levels, that, coupled with specific mitigation approaches and after taking into account actions by other nations (if any), would result in stabilization of greenhouse gas concentrations;

(B) technology development, including—

(i) a national commitment to double energy research and development by the United States public and private sectors; and

(ii) in carrying out such research and development, a national commitment to provide a high degree of emphasis on bold, breakthrough technologies that will make possible a profound transformation of the energy, transportation, industrial, agricultural, and building sectors of the United States;

(C) climate adaptation research that focuses on actions necessary to adapt to climate change—

(i) that may have already occurred; or

(ii) that may occur under future climate change scenarios;

(D) climate science research that—

(i) builds on the substantial scientific understanding of climate change that exists as of the date of enactment of this subtitle; and

(ii) focuses on reducing the remaining scientific, technical, and economic uncertainties to aid in the development of sound response strategies.

(8) LONG-TERM GOAL OF THE STRATEGY.—The term "long-term goal of the Strategy" means the long-term goal in section 1013(a)(1).

(9) MITIGATION.—The term "mitigation" means actions that reduce, avoid, or sequester greenhouse gases.

(10) NATIONAL ACADEMY OF SCIENCES.—The term "National Academy of Sciences" means the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council.

(11) QUALIFIED INDIVIDUAL.—

(A) IN GENERAL.—The term "qualified individual" means an individual who has demonstrated expertise and leadership skills to draw on other experts in diverse fields of knowledge that are relevant to addressing the climate change challenge.

(B) FIELDS OF KNOWLEDGE.—The fields of knowledge referred to in subparagraph (A) are—

(i) the science of climate change and its impacts;

(ii) energy and environmental economics;

(iii) technology transfer and diffusion;

(iv) the social dimensions of climate change;

(v) climate change adaptation strategies;

(vi) fossil, nuclear, and renewable energy technology;

(vii) energy efficiency and energy conservation;

(viii) energy systems integration;

(ix) engineered and terrestrial carbon sequestration;

(x) transportation, industrial, and building sector concerns;

(xi) regulatory and market-based mechanisms for addressing climate change;

(xii) risk and decision analysis;

(xiii) strategic planning; and

(xiv) the international implications of climate change strategies.

(12) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(13) STABILIZATION OF GREENHOUSE GAS CONCENTRATIONS.—The term "stabilization of greenhouse gas concentrations" means the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, recognizing that such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner, as contemplated by the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

(14) STRATEGY.—The term "Strategy" means the National Climate Change Strategy developed under section 1013.

(15) WHITE HOUSE OFFICE.—The term "White House Office" means the Office of National Climate Change Policy established by section 1014(a).

SEC. 1013. NATIONAL CLIMATE CHANGE STRATEGY.

(a) IN GENERAL.—The President, through the director of the White House Office and in consultation with the

Interagency Task Force, shall develop a National Climate Change Strategy, which shall—

(1) have the long-term goal of stabilization of greenhouse gas concentrations through actions taken by the United States and other nations;

(2) recognize that accomplishing the long-term goal of the Strategy will take from many decades to more than a century, but acknowledging that significant actions must begin in the near term;

(3) incorporate the four key elements;

(4) be developed on the basis of an examination of a broad range of emissions levels and dates for achievement of those levels (including those evaluated by the Intergovernmental Panel on Climate Change and those consistent with United States treaty commitments) that, after taking into account actions by other nations, would achieve the long-term goal of the Strategy;

(5) consider the broad range of activities and actions that can be taken by United States entities to reduce, avoid, or sequester greenhouse gas emissions both within the United States and in other nations through the use of market mechanisms, which may include, but not be limited to, mitigation activities, terrestrial sequestration, earning offsets through carbon

capture or project-based activities, trading of emissions credits in domestic and international markets, and the application of the resulting credits from any of the above within the United States;

(6) minimize any adverse short-term and long-term social, economic, national security, and environmental impacts, including ensuring that the strategy is developed in an economically and environmentally sound manner;

(7) incorporate mitigation approaches leading to the development and deployment of advanced technologies and practices that will reduce, avoid, or sequester greenhouse gas emissions;

(8) be consistent with the goals of energy, transportation, industrial, agricultural, forestry, environmental, economic, and other relevant policies of the United States;

(9) take into account—

(A) the diversity of energy sources and technologies;

(B) supply-side and demand-side solutions; and

(C) national infrastructure, energy distribution, and transportation systems;

(10) be based on an evaluation of a wide range of approaches for achieving the long-term goal of the Strategy, including evaluation of—

(A) a variety of cost-effective Federal and State policies, programs, standards, and incentives;

(B) policies that integrate and promote innovative, market-based solutions in the United States and in foreign countries; and

(C) participation in other international institutions, or in the support of international activities, that are established or conducted to achieve the long-term goal of the Strategy;

(11) in the final recommendations of the Strategy—

(A) emphasize policies and actions that achieve the long-term goal of the Strategy; and

(B) provide specific recommendations concerning—

(i) measures determined to be appropriate for short-term implementation, giving preference to cost-effective and technologically feasible measures that will—

(I) produce measurable net reductions in United States emissions, com-

pared to expected trends, that lead toward achievement of the long-term goal of the Strategy; and

(II) minimize any adverse short-term and long-term economic, environmental, national security, and social impacts on the United States;

(ii) the development of technologies that have the potential for long-term implementation—

(I) giving preference to technologies that have the potential to reduce significantly the overall cost of achieving the long-term goal of the Strategy; and

(II) considering a full range of energy sources, energy conversion and use technologies, and efficiency options;

(iii) such changes in institutional and technology systems are necessary to adapt to climate change in the short-term and the long-term;

(iv) such review, modification, and enhancement of the scientific, technical, and economic research efforts of the United

States, and improvements to the data resulting from research, as are appropriate to improve the accuracy of predictions concerning climate change and the economic and social costs and opportunities relating to climate change; and

(v) changes that should be made to project and grant evaluation criteria under other Federal research and development programs so that those criteria do not inhibit development of climate-friendly technologies;

(12) recognize that the Strategy is intended to guide the Nation's effort to address climate change, but it shall not create a legal obligation on the part of any person or entity other than the duties of the Director of the White House Office and Interagency Task Force in the development of the Strategy;

(13) have a scope that considers the totality of United States public, private, and public-private sector actions that bear on the long-term goal;

(14) be developed in a manner that provides for meaningful participation by, and consultation among, Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other inter-

ested parties in accordance with subsections (b)(3)(C)(iv)(II) and (e)(3)(B)(ii) of section 1014;

(15) address how the United States should engage State, tribal, and local governments in developing and carrying out a response to climate change;

(16) promote, to the maximum extent practicable, public awareness, outreach, and information-sharing to further the understanding of the full range of climate change-related issues;

(17) provide a detailed explanation of how the measures recommended by the Strategy will ensure that they do not result in serious harm to the economy of the United States;

(18) provide a detailed explanation of how the measures recommended by the Strategy will achieve its long-term goal;

(19) include any recommendations for legislative and administrative actions necessary to implement the Strategy;

(20) serve as a framework for climate change actions by all Federal agencies;

(21) recommend which Federal agencies are, or should be, responsible for the various aspects of implementation of the Strategy and any budgetary implications;

(22) address how the United States should engage foreign governments in developing an international response to climate change; and

(23) incorporate initiatives to open markets and promote the deployment of a range of climate-friendly technologies developed in the United States and abroad.

(b) SUBMISSION TO CONGRESS.—Not later than 1 year after the date of enactment of this section, the President, through the Interagency Task Force and the Director, shall submit to Congress the Strategy, in the form of a report that includes—

(1) a description of the Strategy and its goals, including how the Strategy addresses each of the 4 key elements;

(2) an inventory and evaluation of Federal programs and activities intended to carry out the Strategy;

(3) a description of how the Strategy will serve as a framework of climate change response actions by all Federal agencies, including a description of coordination mechanisms and interagency activities;

(4) evidence that the Strategy is consistent with other energy, transportation, industrial, agricultural,

forestry, environmental, economic, and other relevant policies of the United States;

(5) a description of provisions in the Strategy that ensure that it minimizes any adverse short-term and long-term social, economic, national security, and environmental impacts, including ensuring that the Strategy is developed in an economically and environmentally sound manner;

(6) evidence that the Strategy has been developed in a manner that provides for participation by, and consultation among, Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties;

(7) a description of Federal activities that promote, to the maximum extent practicable, public awareness, outreach, and information-sharing to further the understanding of the full range of climate change-related issues; and

(8) recommendations for legislative or administrative changes to Federal programs or activities implemented to carry out this Strategy, in light of new knowledge of climate change and its impacts and costs or benefits, or technological capacity to improve mitigation or adaption activities.

(c) UPDATES.—Not later than 4 years after the date of submission of the Strategy to Congress under subsection (b), and at the end of each 4-year period thereafter, the President shall submit to Congress an updated version of the Strategy.

(d) PROGRESS REPORTS.—Not later than 1 year after the date of submission of the Strategy to Congress under subsection (b), and annually thereafter at the time that the President submits to the Congress the budget of the United States Government under section 1105 of title 31, United States Code, the President shall submit to Congress a report that—

(1) describes the Strategy, its goals, and the Federal programs and activities intended to carry out the Strategy through technological, scientific, mitigation, and adaptation activities;

(2) evaluates the Federal programs and activities implemented as part of this Strategy against the goals and implementation dates outlined in the Strategy;

(3) assesses the progress in implementation of the Strategy;

(4) incorporates the technology program reports required pursuant to section 1015(a)(3) and subsections (d) and (e) of section 1321;

(5) describes any changes to Federal programs or activities implemented to carry out this Strategy, in light of new knowledge of climate change and its impacts and costs or benefits, or technological capacity to improve mitigation or adaptation activities;

(6) describes all Federal spending on climate change for the current fiscal year and each of the 5 years previous; categorized by Federal agency and program function (including scientific research, energy research and development, regulation, education, and other activities);

(7) estimates the budgetary impact for the current fiscal year and each of the 5 years previous of any Federal tax credits, tax deductions or other incentives claimed by taxpayers that are directly or indirectly attributable to greenhouse gas emissions reduction activities;

(8) estimates the amount, in metric tons, of net greenhouse gas emissions reduced, avoided, or sequestered directly or indirectly as a result of the implementation of the Strategy;

(9) evaluates international research and development and market-based activities and the mitigation actions taken by the United States and other nations to achieve the long-term goal of the Strategy; and

(10) makes recommendations for legislative or administrative actions or adjustments that will accelerate progress towards meeting the near-term and long-term goals contained in the Strategy.

(e) NATIONAL ACADEMY OF SCIENCES REVIEW.—

(1) IN GENERAL.—Not later than 90 days after the date of publication of the Strategy under subsection (b) and each update under subsection (c), the Director of the National Science Foundation, on behalf of the Director of the White House Office and the Interagency Task Force, shall enter into appropriate arrangements with the National Academy of Sciences to conduct a review of the Strategy or update.

(2) CRITERIA.—The review by the National Academy of Sciences shall evaluate the goals and recommendations contained in the Strategy or update, taking into consideration—

(A) the adequacy of effort and the appropriateness of focus of the totality of all public, private, and public-private sector actions of the United States with respect to the Strategy, including the four key elements;

(B) the adequacy of the budget and the effectiveness with which each Federal agency is carrying out its responsibilities;

(C) current scientific knowledge regarding climate change and its impacts;

(D) current understanding of human social and economic responses to climate change, and responses of natural ecosystems to climate change;

(E) advancements in energy technologies that reduce, avoid, or sequester greenhouse gases or otherwise mitigate the risks of climate change;

(F) current understanding of economic costs and benefits of mitigation or adaptation activities;

(G) the existence of alternative policy options that could achieve the Strategy goals at lower economic, environmental, or social cost; and

(H) international activities and the actions taken by the United States and other nations to achieve the long-term goal of the Strategy.

(3) REPORT.—Not later than 1 year after the date of submittal to the Congress of the Strategy or update, as appropriate, the National Academy of Sciences shall prepare and submit to the Congress and the President a report concerning the results of its review, along with any recommendations as ap-

propriate. Such report shall also be made available to the public.

(4) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this subsection, there are authorized to be appropriated to the National Science Foundation such sums as may be necessary.

SEC. 1014. OFFICE OF NATIONAL CLIMATE CHANGE POLICY.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established, within the Executive Office of the President, the Office of National Climate Change Policy.

(2) FOCUS.—The White House Office shall have the focus of achieving the long-term goal of the Strategy while minimizing adverse short-term and long-term economic and social impacts.

(3) DUTIES.—Consistent with paragraph (2), the White House Office shall—

(A) establish policies, objectives, and priorities for the Strategy;

(B) in accordance with subsection (d), establish the Interagency Task Force to serve as the primary mechanism through which the heads of Federal agencies shall assist the Director of the White House Office in developing and implementing the Strategy;

(C) to the maximum extent practicable, ensure that the Strategy is based on objective, quantitative analysis, drawing on the analytical capabilities of Federal and State agencies, especially the Department Office;

(D) advise the President concerning necessary changes in organization, management, budgeting, and personnel allocation of Federal agencies involved in climate change response activities; and

(E) advise the President and notify a Federal agency if the policies and discretionary programs of the agency are not well aligned with, or are not contributing effectively to, the long-term goal of the Strategy.

(b) DIRECTOR OF THE WHITE HOUSE OFFICE.—

(1) IN GENERAL.—The White House Office shall be headed by a Director, who shall report directly to the President, and shall consult with the appropriate economic, environmental, national security, domestic policy, science and technology and other offices with the Executive Office of the President.

(2) APPOINTMENT.—The Director of the White House Office shall be a qualified individual ap-

pointed by the President, by and with the advice and consent of the Senate.

(3) DUTIES OF THE DIRECTOR OF THE WHITE HOUSE OFFICE.—

(A) STRATEGY.—In accordance with section 1013, the Director of the White House Office shall coordinate the development and updating of the Strategy.

(B) INTERAGENCY TASK FORCE.—The Director of the White House Office shall serve as Chair of the Interagency Task Force.

(C) ADVISORY DUTIES.—

(i) ENERGY, ECONOMIC, ENVIRONMENTAL, TRANSPORTATION, INDUSTRIAL, AGRICULTURAL, BUILDING, FORESTRY, AND OTHER PROGRAMS.—The Director of the White House Office, using an integrated perspective considering the totality of actions in the United States, shall advise the President and the heads of Federal agencies on—

(I) the extent to which United States energy, economic, environmental, transportation, industrial, agricultural, forestry, building, and other

relevant programs are capable of producing progress on the long-term goal of the Strategy; and

(II) the extent to which proposed or newly created energy, economic, environmental, transportation, industrial, agricultural, forestry, building, and other relevant programs positively or negatively affect the ability of the United States to achieve the long-term goal of the Strategy.

(ii) TAX, TRADE, AND FOREIGN POLICIES.—The Director of the White House Office, using an integrated perspective considering the totality of actions in the United States, shall advise the President and the heads of Federal agencies on—

(I) the extent to which the United States tax policy, trade policy, and foreign policy are capable of producing progress on the long-term goal of the Strategy; and

(II) the extent to which proposed or newly created tax policy, trade policy, and foreign policy positively or

negatively affect the ability of the United States to achieve the long-term goal of the Strategy.

(iii) INTERNATIONAL TREATIES.—The Secretary of State, acting in conjunction with the Interagency Task Force and using the analytical tools available to the White House Office, shall provide to the Director of the White House Office an opinion that—

(I) specifies, to the maximum extent practicable, the economic and environmental costs and benefits of any proposed international treaties or components of treaties that have an influence on greenhouse gas management; and

(II) assesses the extent to which the treaties advance the long-term goal of the Strategy, while minimizing adverse short-term and long-term economic and social impacts and considering other impacts.

(iv) CONSULTATION.—

(I) WITH MEMBERS OF INTERAGENCY TASK FORCE.—To the extent

practicable and appropriate, the Director of the White House Office shall consult with all members of the Interagency Task Force before providing advice to the President.

(II) WITH OTHER INTERESTED PARTIES.—The Director of the White House Office shall establish a process for obtaining the meaningful participation of Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties in the development and updating of the Strategy.

(D) PUBLIC EDUCATION, AWARENESS, OUTREACH, AND INFORMATION-SHARING.—The Director of the White House Office, to the maximum extent practicable, shall promote public awareness, outreach, and information-sharing to further the understanding of the full range of climate change-related issues.

(4) ANNUAL REPORTS.—The Director of the White House Office, in consultation with the Interagency Task Force and other interested parties, shall

prepare the annual reports for submission by the President to Congress under section 1013(d).

(5) ANALYSIS.—During development of the Strategy, preparation of the annual reports submitted under paragraph (4), and provision of advice to the President and the heads of Federal agencies, the Director of the White House Office shall place significant emphasis on the use of objective, quantitative analysis, taking into consideration any uncertainties associated with the analysis.

(c) STAFF.—

(1) IN GENERAL.—The Director of the White House Office shall employ a professional staff, including the staff appointed under paragraph (2), of not more than 25 individuals to carry out the duties of the White House Office.

(2) INTERGOVERNMENTAL PERSONNEL AND FELLOWSHIPS.—The Director of the White House Office may use the authority provided by the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4701 et seq.) and subchapter VI of chapter 33 of title 5, United States Code, and fellowships, to obtain staff from Federal agencies, academia, scientific bodies, or a National Laboratory (as that term is defined in section 1203), for appointments of a limited term.

(d) AUTHORIZATION OF APPROPRIATIONS.—

(1) USE OF AVAILABLE APPROPRIATIONS.—From funds made available to Federal agencies for the fiscal year in which this title is enacted, the President shall provide such sums as are necessary to carry out the duties of the White House Office under this title until the date on which funds are made available under paragraph (2).

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Executive Office of the President to carry out the duties of the White House Office under this subtitle, $5,000,000 for each of fiscal years 2003 through 2011, to remain available through September 30, 2011.

(e) INTERAGENCY TASK FORCE.—

(1) IN GENERAL.—The Director of the White House Office shall establish the Interagency Task Force.

(2) COMPOSITION.—The Interagency Task Force shall be composed of—

(A) the Director of the White House Office, who shall serve as Chair;

(B) the Secretary of State;

(C) the Secretary of Energy;

(D) the Secretary of Commerce;

(E) the Secretary of Transportation;

(F) the Secretary of Agriculture;

(G) the Administrator of the Environmental Protection Agency;

(H) the Chairman of the Council of Economic Advisers;

(I) the Chairman of the Council on Environmental Quality;

(J) the Director of the Office of Science and Technology Policy;

(K) the Director of the Office of Management and Budget; and

(L) the heads of such other Federal agencies as the President considers appropriate.

(3) STRATEGY.—

(A) IN GENERAL.—The Interagency Task Force shall serve as the primary forum through which the Federal agencies represented on the Interagency Task Force jointly assist the Director of the White House Office in—

(i) developing and updating the Strategy; and

(ii) preparing annual reports under section 1013(d).

(B) REQUIRED ELEMENTS.—In carrying out subparagraph (A), the Interagency Task Force shall—

(i) take into account the long-term goal and other requirements of the Strategy specified in section 1013(a);

(ii) consult with State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties; and

(iii) build consensus around a Strategy that is based on strong scientific, technical, and economic analyses.

(4) WORKING GROUPS.—The Chair, in consultation with the members of the Interagency Task Force, may establish such topical working groups as are necessary to carry out the duties of the Interagency Task Force and implement the Strategy, taking into consideration the key elements of the Strategy. Such working groups may be comprised of members of the Interagency Task Force or their designees.

(f) STAFF.—In accordance with procedures established by the Chair of the Interagency Task Force, the Federal agencies represented on the Interagency Task Force shall

provide staff from the agencies to support information, data collection, and analyses required by the Interagency Task Force.

(g) HEARINGS.—Upon request of the Chair, the Interagency Task Force may hold such hearings, meet and act at such times and places, take such testimony, and receive such evidence as the Interagency Task Force considers to be appropriate.

SEC. 1015. OFFICE OF CLIMATE CHANGE TECHNOLOGY.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established, within the Department, the Office of Climate Change Technology.

(2) DUTIES.—The Department Office shall—

(A) manage an energy technology research and development program that directly supports the Strategy by—

(i) focusing on high-risk, bold, breakthrough technologies that—

(I) have significant promise of contributing to the long-term goal of the Strategy by—

(aa) mitigating the emissions of greenhouse gases;

(bb) removing and sequestering greenhouse gases from emission streams; or

(cc) removing and sequestering greenhouse gases from the atmosphere;

(II) are not being addressed significantly by other Federal programs; and

(III) would represent a substantial advance beyond technology available on the date of enactment of this subtitle;

(ii) forging fundamentally new research and development partnerships among various Department, other Federal, and State programs, particularly between basic science and energy technology programs, in cases in which such partnerships have significant potential to affect the ability of the United States to achieve the long-term goal of the Strategy at the lowest possible cost;

(iii) forging international research and development partnerships that are in the interests of the United States and make

progress on achieving the long-term goal of the Strategy;

(iv) making available, through monitoring, experimentation, and analysis, data that are essential to proving the technical and economic viability of technology central to addressing climate change; and

(v) transferring research and development programs to other program offices of the Department once such a research and development program crosses the threshold of high-risk research and moves into the realm of more conventional technology development;

(B) through active participation in the Interagency Task Force and utilization of the analytical capabilities of the Department Office, share analyses of alternative climate change strategies with other agencies represented on the Interagency Task Force to assist them in understanding—

(i) the scale of the climate change challenge; and

(ii) how actions of the Federal agencies on the Interagency Task Force positively or

negatively contribute to climate change solutions;

(C) provide analytical support to the White House Office, particularly in support of the development of the Strategy and associated progress reporting;

(D) foster the development of tools, data, and capabilities to ensure that—

(i) the United States has a robust capability for evaluating alternative climate change response scenarios; and

(ii) the Department Office provides long-term analytical continuity during the terms of service of successive Presidents;

(E) identify the total contribution of all Department programs to the Strategy; and

(F) advise the Secretary on all aspects of climate change-related issues, including necessary changes in Department organization, management, budgeting, and personnel allocation in the programs involved in climate change response-related activities.

(3) ANNUAL REPORTS.—The Department Office shall prepare an annual report for submission by the

Secretary to Congress and the White House Office that—

(A) assesses progress toward meeting the goals of the energy technology research and development program described in this section;

(B) assesses the activities of the Department Office;

(C) assesses the contributions of all energy technology research and development programs of the Department (including science programs) to the long-term goal and other requirements of the Strategy; and

(D) make recommendations for actions by the Department and other Federal agencies to address the components of technology development that are necessary to support the Strategy.

(b) DIRECTOR OF THE DEPARTMENT OFFICE.—

(1) IN GENERAL.—The Department Office shall be headed by a Director, who shall be a qualified individual appointed by the President, and who shall be compensated at a rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.

(2) REPORTING.—The Director of the Department Office shall report directly to the Under Secretary for Energy and Science.

(3) VACANCIES.—A vacancy in the position of the Director of the Department Office shall be filled in the same manner as the original appointment was made.

(c) INTERGOVERNMENTAL PERSONNEL.—The Department Office may use the authority provided by the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4701 et seq.), subchapter VI of chapter 33 of title 5, United States Code, and other departmental personnel authorities, to obtain staff for appointments of a limited term.

(d) RELATIONSHIP TO OTHER DEPARTMENT PROGRAMS.—Each project carried out by the Department Office shall be—

(1) initiated only after consultation with one or more other appropriate program offices of the Department that support research and development in the areas relating to the project;

(2) managed by the Department Office; and

(3) in the case of a project that reaches a sufficient level of maturity, with the concurrence of the Department Office and the appropriate office described in paragraph (1), transferred to the appro-

priate office, along with the funds necessary to continue the project to the point at which non-Federal funding can provide substantial support for the project.

(e) COLLABORATION AND COST SHARING.—

(1) WITH OTHER FEDERAL AGENCIES.—Projects supported by the Department Office may include participation of, and be supported by, other Federal agencies that have a role in the development, commercialization, or transfer of energy, transportation, industrial, agricultural, forestry, or other climate change-related technology.

(2) WITH THE PRIVATE SECTOR.—

(A) IN GENERAL.—Notwithstanding section 1403, the Department Office shall create an operating model that allows for collaboration, division of effort, and cost sharing with industry on individual climate change response projects.

(B) REQUIREMENTS.—Although cost sharing in some cases may be appropriate, the Department Office shall focus on long-term high-risk research and development and should not make industrial partnerships or cost sharing a requirement, if such a requirement would bias

the activities of the Department Office toward incremental innovations.

(C) REEVALUATION ON TRANSFER.—At such time as any bold, breakthrough research and development program reaches a sufficient level of technological maturity such that the program is transferred to a program office of the Department other than the Department Office, the cost-sharing requirements and criteria applicable to the program shall be reevaluated.

(D) PUBLICATION IN FEDERAL REGISTER.—Each cost-sharing agreement entered into under this paragraph shall be published in the Federal Register.

(f) ANALYSIS OF CLIMATE CHANGE STRATEGY.—

(1) IN GENERAL.—The Department Office shall foster the development and application of advanced computational tools, data, and capabilities that, together with the capabilities of other Federal agencies, support integrated assessment of alternative climate change response scenarios and implementation of the Strategy.

(2) PROGRAMS.—

(A) IN GENERAL.—The Department Office shall—

(i) develop and maintain core analytical competencies and complex, integrated computational modeling capabilities that, together with the capabilities of other Federal agencies, are necessary to support the design and implementation of the Strategy; and

(ii) track United States and international progress toward the long-term goal of the Strategy.

(B) INTERNATIONAL CARBON DIOXIDE SEQUESTRATION MONITORING AND DATA PROGRAM.—In consultation with Federal, State, academic, scientific, private sector, nongovernmental, tribal, and international carbon capture and sequestration technology programs, the Department Office shall design and carry out an international carbon dioxide sequestration monitoring and data program to collect, analyze, and make available the technical and economic data to ascertain—

(i) whether engineered sequestration and terrestrial sequestration will be acceptable technologies from regulatory, economic, and international perspectives;

(ii) whether carbon dioxide sequestered in geological formations or ocean systems is stable and has inconsequential leakage rates on a geologic time-scale; and

(iii) the extent to which forest, agricultural, and other terrestrial systems are suitable carbon sinks.

(3) AREAS OF EXPERTISE.—

(A) IN GENERAL.—The Department Office shall develop and maintain expertise in integrated assessment, modeling, and related capabilities necessary—

(i) to understand the relationship between natural, agricultural, industrial, energy, and economic systems;

(ii) to design effective research and development programs; and

(iii) to assist with the development and implementation of the Strategy.

(B) TECHNOLOGY TRANSFER AND DIFFUSION.—The expertise described in clause (i) shall include knowledge of technology transfer and technology diffusion in United States and foreign markets.

(4) DISSEMINATION OF INFORMATION.—The Department Office shall ensure, to the maximum extent practicable, that technical and scientific knowledge relating to greenhouse gas emission reduction, avoidance, and sequestration is broadly disseminated through publications, fellowships, and training programs.

(5) ASSESSMENTS.—In a manner consistent with the Strategy, the Department shall conduct assessments of deployment of climate-friendly technology.

(6) ANALYSIS.—During development of the Strategy, annual reports submitted under subsection (a)(3), and advice to the Secretary, the Director of the Department Office shall place significant emphasis on the use of objective, quantitative analysis, taking into consideration any associated uncertainties.

(g) AUTHORIZATION OF APPROPRIATIONS.—

(1) USE OF AVAILABLE APPROPRIATIONS.—From funds made available to Federal agencies for the fiscal year in which this subtitle is enacted, the President shall provide such sums as are necessary to carry out the duties of the Department Office under this subtitle until the date on which funds are made available under paragraph (2).

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary, to carry out the duties of the Department Office under this subtitle, $4,750,000,000 for the period of fiscal years 2003 through 2011, to remain available through September 30, 2011.

(3) ADDITONAL AMOUNTS.—Amounts authorized to be appropriated under this section shall be in addition to—

(A) amounts made available to carry out the United States Global Change Research Program under the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.); and

(B) amounts made available under other provisions of law for energy research and development.

SEC. 1016. ADDITIONAL OFFICES AND ACTIVITIES.

The Secretary of Agriculture, the Secretary of Transportation, the Secretary of Commerce, the Administrator of the Environmental Protection Agency, and the heads of other Federal agencies may establish such offices and carry out such activities, in addition to those established or authorized by this Act, as are necessary to carry out this Act.

Subtitle C—Science and Technology Policy

SEC. 1021. GLOBAL CLIMATE CHANGE IN THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY.

Section 101(b) of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601(b)) is amended—

(1) by redesignating paragraphs (7) through (13) as paragraphs (8) through (14), respectively; and

(2) by inserting after paragraph (6) the following:

"(7) improving efforts to understand, assess, predict, mitigate, and respond to global climate change;".

SEC. 1022. DIRECTOR OF OFFICE OF SCIENCE AND TECHNOLOGY POLICY FUNCTIONS.

(a) ADVISE PRESIDENT ON GLOBAL CLIMATE CHANGE.—Section 204(b)(1) of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6613(b)(1)) is amended by inserting "global climate change," after "to,".

(b) ADVISE DIRECTOR OF OFFICE OF NATIONAL CLIMATE CHANGE POLICY.—Section 207 of that Act (42 U.S.C. 6616) is amended—

(1) by redesignating subsections (b) and (c) as subsections (c) and (d), respectively; and

(2) by inserting after subsection (a) the following:

"(b) ADVISE DIRECTOR OF OFFICE OF NATIONAL CLIMATE CHANGE POLICY.—In carrying out this Act, the Director shall advise the Director of the Office of National Climate Change Policy on matters concerning science and technology as they relate to global climate change.".

Subtitle D—Miscellaneous Provisions

SEC. 1031. ADDITIONAL INFORMATION FOR REGULATORY REVIEW.

In each case that an agency prepares and submits a Statement of Energy Effects pursuant to Executive Order 13211 of May 18, 2001 (relating to actions concerning regulations that significantly affect energy supply, distribution, or use), the agency shall also submit an estimate of the change in net annual greenhouse gas emissions resulting from the proposed significant energy action and any reasonable alternatives to the action.

SEC. 1032. GREENHOUSE GAS EMISSIONS FROM FEDERAL FACILITIES.

(a) METHODOLOGY.—Not later than 1 year after the date of enactment of this section, the Secretary of Energy, Secretary of Agriculture, Secretary of Commerce, and Administrator of the Environmental Protection Agency shall

publish a jointly developed methodology for preparing estimates of annual net greenhouse gas emissions from all federally owned, leased, or operated facilities and emission sources, including stationary, mobile, and indirect emissions as may be determined to be feasible.

(b) PUBLICATION.—Not later than 18 months after the date of enactment of this section, and annually thereafter, the Secretary of Energy shall publish an estimate of annual net greenhouse gas emissions from all federally owned, leased, or operated facilities and emission sources, using the methodology published under subsection (a).

TITLE XI—NATIONAL GREENHOUSE GAS DATABASE

SEC. 1101. PURPOSE.

The purpose of this title is to establish a greenhouse gas inventory, reductions registry, and information system that—

(1) are complete, consistent, transparent, and accurate;

(2) will create reliable and accurate data that can be used by public and private entities to design efficient and effective greenhouse gas emission reduction strategies; and

(3) will acknowledge and encourage greenhouse gas emission reductions.

SEC. 1102. DEFINITIONS.

In this title:

(1) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) BASELINE.—The term "baseline" means the historic greenhouse gas emission levels of an entity, as adjusted upward by the designated agency to reflect actual reductions that are verified in accordance with—

(A) regulations promulgated under section 1104(c)(1); and

(B) relevant standards and methods developed under this title.

(3) DATABASE.—The term "database" means the National Greenhouse Gas Database established under section 1104.

(4) DESIGNATED AGENCY.—The term "designated agency" means a department or agency to which responsibility for a function or program is assigned under the memorandum of agreement entered into under section 1103(a).

(5) DIRECT EMISSIONS.—The term "direct emissions" means greenhouse gas emissions by an entity from a facility that is owned or controlled by that entity.

(6) ENTITY.—The term "entity" means—

(A) a person located in the United States; or

(B) a public or private entity, to the extent that the entity operates in the United States.

(7) FACILITY.—The term "facility" means—

(A) all buildings, structures, or installations located on any 1 or more contiguous or adjacent properties of an entity in the United States; and

(B) a fleet of 20 or more motor vehicles under the common control of an entity.

(8) GREENHOUSE GAS.—The term "greenhouse gas" means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perfluorocarbons;

(F) sulfur hexafluoride; and

(G) any other anthropogenic climate-forcing emissions with significant ascertainable global warming potential, as—

(i) recommended by the National Academy of Sciences under section 1107(b)(3); and

(ii) determined in regulations promulgated under section 1104(c)(1) (or revisions to the regulations) to be appropriate and practicable for coverage under this title.

(9) INDIRECT EMISSIONS.—The term "indirect emissions" means greenhouse gas emissions that—

(A) are a result of the activities of an entity; but

(B)(i) are emitted from a facility owned or controlled by another entity; and

(ii) are not reported as direct emissions by the entity the activities of which resulted in the emissions.

(10) REGISTRY.—The term "registry" means the registry of greenhouse gas emission reductions established as a component of the database under section 1104(b)(2).

(11) SEQUESTRATION.—

(A) IN GENERAL.—The term "sequestration" means the capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere.

(B) INCLUSIONS.—The term "sequestration" includes—

(i) soil carbon sequestration;

(ii) agricultural and conservation practices;

(iii) reforestation;

(iv) forest preservation;

(v) maintenance of an underground reservoir; and

(vi) any other appropriate biological or geological method of capture, isolation, or removal of greenhouse gases from the atmosphere, as determined by the Administrator.

SEC. 1103. ESTABLISHMENT OF MEMORANDUM OF AGREEMENT.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the President, acting through the Director of the Office of National Climate Change Policy, shall direct the Secretary of Energy, the Secretary of Commerce, the Secretary of Agriculture, the Secretary of Transportation, and the Administrator to enter into a memorandum of agreement under which those heads of Federal agencies will—

(1) recognize and maintain statutory and regulatory authorities, functions, and programs that—

(A) are established as of the date of enactment of this Act under other law;

(B) provide for the collection of data relating to greenhouse gas emissions and effects; and

(C) are necessary for the operation of the database;

(2)(A) distribute additional responsibilities and activities identified under this title to Federal departments or agencies in accordance with the missions and expertise of those departments and agencies; and

(B) maximize the use of available resources of those departments and agencies; and

(3) provide for the comprehensive collection and analysis of data on greenhouse gas emissions relating to product use (including the use of fossil fuels and energy-consuming appliances and vehicles).

(b) MINIMUM REQUIREMENTS.—The memorandum of agreement entered into under subsection (a) shall, at a minimum, retain the following functions for the designated agencies:

(1) DEPARTMENT OF ENERGY.—The Secretary of Energy shall be primarily responsible for developing, maintaining, and verifying the registry and the emission reductions reported under section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)).

(2) DEPARTMENT OF COMMERCE.—The Secretary of Commerce shall be primarily responsible for the development of—

(A) measurement standards for the monitoring of emissions; and

(B) verification technologies and methods to ensure the maintenance of a consistent and technically accurate record of emissions, emission reductions, and atmospheric concentrations of greenhouse gases for the database.

(3) ENVIRONMENTAL PROTECTION AGENCY.—The Administrator shall be primarily responsible for—

(A) emissions monitoring, measurement, verification, and data collection under this title and title IV (relating to acid deposition control) and title VIII of the Clean Air Act (42 U.S.C. 7651 et seq.), including mobile source emissions information from implementation of the corporate average fuel economy program under chapter 329 of title 49, United States Code; and

(B) responsibilities of the Environmental Protection Agency relating to completion of the national inventory for compliance with the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

(4) DEPARTMENT OF AGRICULTURE.—The Secretary of Agriculture shall be primarily responsible for—

(A) developing measurement techniques for—

(i) soil carbon sequestration; and

(ii) forest preservation and reforestation activities; and

(B) providing technical advice relating to biological carbon sequestration measurement and verification standards for measuring greenhouse gas emission reductions or offsets.

(c) DRAFT MEMORANDUM OF AGREEMENT.—Not later than 15 months after the date of enactment of this Act, the President, acting through the Director of the Office of National Climate Change Policy, shall publish in the Federal Register, and solicit comments on, a draft version of the memorandum of agreement described in subsection (a).

(d) NO JUDICIAL REVIEW.—The final version of the memorandum of agreement shall not be subject to judicial review.

SEC. 1104. NATIONAL GREENHOUSE GAS DATABASE.

(a) ESTABLISHMENT.—As soon as practicable after the date of enactment of this Act, the designated agencies, in consultation with the private sector and nongovernmental

organizations, shall jointly establish, operate, and maintain a database, to be known as the "National Greenhouse Gas Database", to collect, verify, and analyze information on greenhouse gas emissions by entities.

(b) NATIONAL GREENHOUSE GAS DATABASE COMPONENTS.—The database shall consist of—

(1) an inventory of greenhouse gas emissions; and

(2) a registry of greenhouse gas emission reductions.

(c) COMPREHENSIVE SYSTEM.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the designated agencies shall jointly promulgate regulations to implement a comprehensive system for greenhouse gas emissions reporting, inventorying, and reductions registration.

(2) REQUIREMENTS.—The designated agencies shall ensure, to the maximum extent practicable, that—

(A) the comprehensive system described in paragraph (1) is designed to—

(i) maximize completeness, transparency, and accuracy of information reported; and

(ii) minimize costs incurred by entities in measuring and reporting greenhouse gas emissions; and

(B) the regulations promulgated under paragraph (1) establish procedures and protocols necessary—

(i) to prevent the reporting of some or all of the same greenhouse gas emissions or emission reductions by more than 1 reporting entity;

(ii) to provide for corrections to errors in data submitted to the database;

(iii) to provide for adjustment to data by reporting entities that have had a significant organizational change (including mergers, acquisitions, and divestiture), in order to maintain comparability among data in the database over time;

(iv) to provide for adjustments to reflect new technologies or methods for measuring or calculating greenhouse gas emissions; and

(v) to account for changes in registration of ownership of emission reductions re-

sulting from a voluntary private transaction between reporting entities.

(3) BASELINE IDENTIFICATION AND PROTECTION.—Through regulations promulgated under paragraph (1), the designated agencies shall develop and implement a system that provides—

(A) for the provision of unique serial numbers to identify the verified emission reductions made by an entity relative to the baseline of the entity;

(B) for the tracking of the reductions associated with the serial numbers; and

(C) that the reductions may be applied, as determined to be appropriate by any Act of Congress enacted after the date of enactment of this Act, toward a Federal requirement under such an Act that is imposed on the entity for the purpose of reducing greenhouse gas emissions.

SEC. 1105. GREENHOUSE GAS REDUCTION REPORTING.

(a) IN GENERAL.—An entity that participates in the registry shall meet the requirements described in subsection (b).

(b) REQUIREMENTS.—

(1) IN GENERAL.—The requirements referred to in subsection (a) are that an entity (other than an entity described in paragraph (2)) shall—

(A) establish a baseline (including all of the entity's greenhouse gas emissions on an entity-wide basis); and

(B) submit the report described in subsection (c)(1).

(2) REQUIREMENTS APPLICABLE TO ENTITIES ENTERING INTO CERTAIN AGREEMENTS.—An entity that enters into an agreement with a participant in the registry for the purpose of a carbon sequestration project shall not be required to comply with the requirements specified in paragraph (1) unless that entity is required to comply with the requirements by reason of an activity other than the agreement.

(c) REPORTS.—

(1) REQUIRED REPORT.—Not later than April 1 of the third calendar year that begins after the date of enactment of this Act, and not later than April 1 of each calendar year thereafter, subject to paragraph (3), an entity described in subsection (a) shall submit to each appropriate designated agency a report that describes, for the preceding calendar year, the entity-

wide greenhouse gas emissions (as reported at the facility level), including—

(A) the total quantity of each greenhouse gas emitted, expressed in terms of mass and in terms of the quantity of carbon dioxide equivalent;

(B) an estimate of the greenhouse gas emissions from fossil fuel combusted by products manufactured and sold by the entity in the previous calendar year, determined over the average lifetime of those products; and

(C) such other categories of emissions as the designated agency determines in the regulations promulgated under section 1104(c)(1) may be practicable and useful for the purposes of this title, such as—

(i) direct emissions from stationary sources;

(ii) indirect emissions from imported electricity, heat, and steam;

(iii) process and fugitive emissions; and

(iv) production or importation of greenhouse gases.

(2) VOLUNTARY REPORTING.—An entity described in subsection (a) may (along with establishing a baseline and reporting reductions under this section)—

(A) submit a report described in paragraph (1) before the date specified in that paragraph for the purposes of achieving and commoditizing greenhouse gas reductions through use of the registry; and

(B) submit to any designated agency, for inclusion in the registry, information that has been verified in accordance with regulations promulgated under section 1104(c)(1) and that relates to—

(i) with respect to the calendar year preceding the calendar year in which the information is submitted, and with respect to any greenhouse gas emitted by the entity—

(I) project reductions from facilities owned or controlled by the reporting entity in the United States;

(II) transfers of project reductions to and from any other entity;

(III) project reductions and transfers of project reductions outside the United States;

(IV) other indirect emissions that are not required to be reported under paragraph (1); and

(V) product use phase emissions;

(ii) with respect to greenhouse gas emission reductions activities of the entity that have been carried out during or after 1990, verified in accordance with regulations promulgated under section 1104(c)(1), and submitted to 1 or more designated agencies before the date that is 4 years after the date of enactment of this Act, any greenhouse gas emission reductions that have been reported or submitted by an entity under—

(I) section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)); or

(II) any other Federal or State voluntary greenhouse gas reduction program; and

(iii) any project or activity for the reduction of greenhouse gas emissions or sequestration of a greenhouse gas that is carried out by the entity, including a project or activity relating to—

(I) fuel switching;

(II) energy efficiency improvements;

(III) use of renewable energy;

(IV) use of combined heat and power systems;

(V) management of cropland, grassland, or grazing land;

(VI) a forestry activity that increases forest carbon stocks or reduces forest carbon emissions;

(VII) carbon capture and storage;

(VIII) methane recovery;

(IX) greenhouse gas offset investment; and

(X) any other practice for achieving greenhouse gas reductions as recognized by 1 or more designated agencies.

(3) EXEMPTIONS FROM REPORTING.—

(A) IN GENERAL.—If the Director of the Office of National Climate Change Policy determines under section 1108(b) that the reporting requirements under paragraph (1) shall apply to all entities (other than entities exempted by this paragraph), regardless of participation or nonparticipation in the registry, an entity shall be required to submit reports under paragraph (1) only if, in any calendar year after the date of enactment of this Act—

(i) the total greenhouse gas emissions of at least 1 facility owned by the entity exceeds 10,000 metric tons of carbon dioxide equivalent (or such greater quantity as may be established by a designated agency by regulation); or

(ii)(I) the total quantity of greenhouse gases produced, distributed, or imported by the entity exceeds 10,000 metric tons of carbon dioxide equivalent (or such greater quantity as may be established by a designated agency by regulation); and

(II) the entity is not a feedlot or other farming operation (as defined in section 101 of title 11, United States Code).

(B) ENTITIES ALREADY REPORTING.—

(i) IN GENERAL.—An entity that, as of the date of enactment of this Act, is required to report carbon dioxide emissions data to a Federal agency shall not be required to re-report that data for the purposes of this title.

(ii) REVIEW OF PARTICIPATION.—For the purpose of section 1108, emissions reported under clause (i) shall be considered to be reported by the entity to the registry.

(4) PROVISION OF VERIFICATION INFORMATION BY REPORTING ENTITIES.—Each entity that submits a report under this subsection shall provide information sufficient for each designated agency to which the report is submitted to verify, in accordance with measurement and verification methods and standards developed under section 1106, that the greenhouse gas report of the reporting entity—

(A) has been accurately reported; and

(B) in the case of each voluntary report under paragraph (2), represents—

(i) actual reductions in direct greenhouse gas emissions—

(I) relative to historic emission levels of the entity; and

(II) net of any increases in—

(aa) direct emissions; and

(bb) indirect emissions described in paragraph (1)(C)(ii); or

(ii) actual increases in net sequestration.

(5) FAILURE TO SUBMIT REPORT.—An entity that participates or has participated in the registry and that fails to submit a report required under this subsection shall be prohibited from including emission reductions reported to the registry in the calculation of the baseline of the entity in future years.

(6) INDEPENDENT THIRD-PARTY VERIFICATION.—To meet the requirements of this section and section 1106, a entity that is required to submit a report under this section may—

(A) obtain independent third-party verification; and

(B) present the results of the third-party verification to each appropriate designated agency.

(7) AVAILABILITY OF DATA.—

(A) IN GENERAL.—The designated agencies shall ensure, to the maximum extent practicable, that information in the database is—

(i) published;

(ii) accessible to the public; and

(iii) made available in electronic format on the Internet.

(B) EXCEPTION.—Subparagraph (A) shall not apply in any case in which the designated agencies determine that publishing or otherwise making available information described in that subparagraph poses a risk to national security.

(8) DATA INFRASTRUCTURE.—The designated agencies shall ensure, to the maximum extent practicable, that the database uses, and is integrated with, Federal, State, and regional greenhouse gas data collection and reporting systems in effect as of the date of enactment of this Act.

(9) ADDITIONAL ISSUES TO BE CONSIDERED.—In promulgating the regulations under section 1104(c)(1) and implementing the database, the designated agencies shall take into consideration a broad range of issues involved in establishing an effective database, including—

(A) the appropriate units for reporting each greenhouse gas;

(B) the data and information systems and measures necessary to identify, track, and verify greenhouse gas emission reductions in a manner that will encourage the development of private sector trading and exchanges;

(C) the greenhouse gas reduction and sequestration methods and standards applied in other countries, as applicable or relevant;

(D) the extent to which available fossil fuels, greenhouse gas emissions, and greenhouse gas production and importation data are adequate to implement the database;

(E) the differences in, and potential uniqueness of, the facilities, operations, and business and other relevant practices of persons and entities in the private and public sectors that may be expected to participate in the registry; and

(F) the need of the registry to maintain valid and reliable information on baselines of entities so that, in the event of any future action by Congress to require entities, individually or collectively, to reduce greenhouse gas emissions, Congress will be able—

(i) to take into account that information; and

(ii) to avoid enacting legislation that penalizes entities for achieving and reporting reductions.

(d) ANNUAL REPORT.—The designated agencies shall jointly publish an annual report that—

(1) describes the total greenhouse gas emissions and emission reductions reported to the database during the year covered by the report;

(2) provides entity-by-entity and sector-by-sector analyses of the emissions and emission reductions reported;

(3) describes the atmospheric concentrations of greenhouse gases; and

(4) provides a comparison of current and past atmospheric concentrations of greenhouse gases.

SEC. 1106. MEASUREMENT AND VERIFICATION.

(a) STANDARDS.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the designated agencies shall jointly develop comprehensive measurement and verification methods and standards to ensure a consistent and technically accurate record of greenhouse gas emissions, emission reductions, sequestra-

tion, and atmospheric concentrations for use in the registry.

(2) REQUIREMENTS.—The methods and standards developed under paragraph (1) shall address the need for—

(A) standardized measurement and verification practices for reports made by all entities participating in the registry, taking into account—

(i) protocols and standards in use by entities desiring to participate in the registry as of the date of development of the methods and standards under paragraph (1);

(ii) boundary issues, such as leakage and shifted use;

(iii) avoidance of double counting of greenhouse gas emissions and emission reductions; and

(iv) such other factors as the designated agencies determine to be appropriate;

(B) measurement and verification of actions taken to reduce, avoid, or sequester greenhouse gas emissions;

(C) in coordination with the Secretary of Agriculture, measurement of the results of the use of carbon sequestration and carbon recapture technologies, including—

(i) organic soil carbon sequestration practices; and

(ii) forest preservation and reforestation activities that adequately address the issues of permanence, leakage, and verification;

(D) such other measurement and verification standards as the Secretary of Commerce, the Secretary of Agriculture, the Administrator, and the Secretary of Energy determine to be appropriate; and

(E) other factors that, as determined by the designated agencies, will allow entities to adequately establish a fair and reliable measurement and reporting system.

(b) REVIEW AND REVISION.—The designated agencies shall periodically review, and revise as necessary, the methods and standards developed under subsection (a).

(c) PUBLIC PARTICIPATION.—The Secretary of Commerce shall—

(1) make available to the public for comment, in draft form and for a period of at least 90 days, the methods and standards developed under subsection (a); and

(2) after the 90-day period referred to in paragraph (1), in coordination with the Secretary of Energy, the Secretary of Agriculture, and the Administrator, adopt the methods and standards developed under subsection (a) for use in implementing the database.

(d) EXPERTS AND CONSULTANTS.—

(1) IN GENERAL.—The designated agencies may obtain the services of experts and consultants in the private and nonprofit sectors in accordance with section 3109 of title 5, United States Code, in the areas of greenhouse gas measurement, certification, and emission trading.

(2) AVAILABLE ARRANGEMENTS.—In obtaining any service described in paragraph (1), the designated agencies may use any available grant, contract, cooperative agreement, or other arrangement authorized by law.

SEC. 1107. INDEPENDENT REVIEWS.

(a) IN GENERAL.—Not later than 5 years after the date of enactment of this Act, and every 3 years thereafter,

the Comptroller General of the United States shall submit to Congress a report that—

(1) describes the efficacy of the implementation and operation of the database; and

(2) includes any recommendations for improvements to this title and programs carried out under this title—

(A) to achieve a consistent and technically accurate record of greenhouse gas emissions, emission reductions, and atmospheric concentrations; and

(B) to achieve the purposes of this title.

(b) REVIEW OF SCIENTIFIC METHODS.—The designated agencies shall enter into an agreement with the National Academy of Sciences under which the National Academy of Sciences shall—

(1) review the scientific methods, assumptions, and standards used by the designated agencies in implementing this title;

(2) not later than 4 years after the date of enactment of this Act, submit to Congress a report that describes any recommendations for improving—

(A) those methods and standards; and

(B) related elements of the programs, and structure of the database, established by this title; and

(3) regularly review and update as appropriate the list of anthropogenic climate-forcing emissions with significant global warming potential described in section 1102(8)(G).

SEC. 1108. REVIEW OF PARTICIPATION.

(a) IN GENERAL.—Not later than 5 years after the date of enactment of this Act, the Director of the Office of National Climate Change Policy shall determine whether the reports submitted to the registry under section 1105(c)(1) represent less than 60 percent of the national aggregate anthropogenic greenhouse gas emissions.

(b) INCREASED APPLICABILITY OF REQUIREMENTS.—If the Director of the Office of National Climate Change Policy determines under subsection (a) that less than 60 percent of the aggregate national anthropogenic greenhouse gas emissions are being reported to the registry—

(1) the reporting requirements under section 1105(c)(1) shall apply to all entities (except entities exempted under section 1105(c)(3)), regardless of any participation or nonparticipation by the entities in the registry; and

(2) each entity shall submit a report described in section 1105(c)(1)—

(A) not later than the earlier of—

(i) April 30 of the calendar year immediately following the year in which the Director of the Office of National Climate Change Policy makes the determination under subsection (a); or

(ii) the date that is 1 year after the date on which the Director of the Office of National Climate Change Policy makes the determination under subsection (a); and

(B) annually thereafter.

(c) RESOLUTION OF DISAPPROVAL.—For the purposes of this section, the determination of the Director of the Office of National Climate Change Policy under subsection (a) shall be considered to be a major rule (as defined in section 804(2) of title 5, United States Code) subject to the congressional disapproval procedure under section 802 of title 5, United States Code.

SEC. 1109. ENFORCEMENT.

If an entity that is required to report greenhouse gas emissions under section 1105(c)(1) or 1108 fails to comply with that requirement, the Attorney General may, at the request of the designated agencies, bring a civil action in

United States district court against the entity to impose on the entity a civil penalty of not more than $25,000 for each day for which the entity fails to comply with that requirement.

SEC. 1110. REPORT ON STATUTORY CHANGES AND HARMONIZATION.

Not later than 3 years after the date of enactment of this Act, the President shall submit to Congress a report that describes any modifications to this title or any other provision of law that are necessary to improve the accuracy or operation of the database and related programs under this title.

SEC. 1111. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this title.

DIVISION E—ENHANCING RESEARCH, DEVELOPMENT, AND TRAINING

TITLE XII—ENERGY RESEARCH AND DEVELOPMENT PROGRAMS

SEC. 1201. SHORT TITLE.

This division may be cited as the "Energy Science and Technology Enhancement Act of 2002".

SEC. 1202. FINDINGS.

The Congress finds the following:

(1) A coherent national energy strategy requires an energy research and development program that supports basic energy research and provides mechanisms to develop, demonstrate, and deploy new energy technologies in partnership with industry.

(2) An aggressive national energy research, development, demonstration, and technology deployment program is an integral part of a national climate change strategy, because it can reduce—

(A) United States energy intensity by 1.9 percent per year from 1999 to 2020;

(B) United States energy consumption in 2020 by 8 quadrillion Btu from otherwise expected levels; and

(C) United States carbon dioxide emissions from expected levels by 166 million metric tons in carbon equivalent in 2020.

(3) An aggressive national energy research, development, demonstration, and technology deployment program can help maintain domestic United States production of energy, increase United States hydrocarbon reserves by 14 percent, and lower natural gas prices by 20 percent, compared to estimates for 2020.

(4) An aggressive national energy research, development, demonstration, and technology deployment

program is needed if United States suppliers and manufacturers are to compete in future markets for advanced energy technologies.

SEC. 1203. DEFINITIONS.

In this title:

(1) DEPARTMENT.—The term "Department" means the Department of Energy.

(2) DEPARTMENTAL MISSION.—The term "departmental mission" means any of the functions vested in the Secretary of Energy by the Department of Energy Organization Act (42 U.S.C. 7101 et seq.) or other law.

(3) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given that term in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a));

(4) NATIONAL LABORATORY.—The term "National Laboratory" means any of the following multipurpose laboratories owned by the Department of Energy—

(A) Argonne National Laboratory;

(B) Brookhaven National Laboratory;

(C) Idaho National Engineering and Environmental Laboratory;

(D) Lawrence Berkeley National Laboratory;

(E) Lawrence Livermore National Laboratory;

(F) Los Alamos National Laboratory;

(G) National Energy Technology Laboratory;

(H) National Renewable Energy Laboratory;

(I) Oak Ridge National Laboratory;

(J) Pacific Northwest National Laboratory; or

(K) Sandia National Laboratory.

(5) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(6) TECHNOLOGY DEPLOYMENT.—The term "technology deployment" means activities to promote acceptance and utilization of technologies in commercial application, including activities undertaken pursuant to section 7 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5906) or section 6 of the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (42 U.S.C. 12007).

SEC. 1204. CONSTRUCTION WITH OTHER LAWS.

Except as otherwise provided in this title and title XIV, the Secretary shall carry out the research, development, demonstration, and technology deployment programs authorized by this title in accordance with the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), the Federal Nonnuclear Research and Development Act of 1974 (42 U.S.C. 5901 et seq.), the Energy Policy Act of 1992 (42 U.S.C. 13201 et seq.), or any other Act under which the Secretary is authorized to carry out such activities.

Subtitle A—Energy Efficiency

SEC. 1211. ENHANCED ENERGY EFFICIENCY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct balanced energy research, development, demonstration, and technology deployment programs to enhance energy efficiency in buildings, industry, power technologies, and transportation.

(b) PROGRAM GOALS.—

(1) ENERGY-EFFICIENT HOUSING.—The goal of the energy-efficient housing program shall be to develop, in partnership with industry, enabling technologies (including lighting technologies), designs, production methods, and supporting activities that will, by 2010—

(A) cut the energy use of new housing by 50 percent, and

(B) reduce energy use in existing homes by 30 percent.

(2) INDUSTRIAL ENERGY EFFICIENCY.—The goal of the industrial energy efficiency program shall be to develop, in partnership with industry, enabling technologies, designs, production methods, and supporting activities that will, by 2010, enable energy-intensive industries such as the following industries to reduce their energy intensity by at least 25 percent—

(A) the wood product manufacturing industry;

(B) the pulp and paper industry;

(C) the petroleum and coal products manufacturing industry;

(D) the mining industry;

(E) the chemical manufacturing industry;

(F) the glass and glass product manufacturing industry;

(G) the iron and steel mills and ferroalloy manufacturing industry;

(H) the primary aluminum production industry;

(I) the foundries industry; and

(J) United States agriculture.

(3) TRANSPORTATION ENERGY EFFICIENCY.—The goal of the transportation energy efficiency program shall be to develop, in partnership with industry, technologies that will enable the achievement—

(A) by 2010, passenger automobiles with a fuel economy of 80 miles per gallon;

(B) by 2010, light trucks (classes 1 and 2a) with a fuel economy of 60 miles per gallon;

(C) by 2010, medium trucks and buses (classes 2b through 6 and class 8 transit buses) with a fuel economy, in ton-miles per gallon, that is three times that of year 2000 equivalent vehicles;

(D) by 2010, heavy trucks (classes 7 and 8) with a fuel economy, in ton-miles per gallon, that is two times that of year 2000 equivalent vehicles; and

(E) by 2015, the production of fuel-cell powered passenger vehicles with a fuel economy of 110 miles per gallon.

(4) ENERGY EFFICIENT DISTRIBUTED GENERATION.—The goals of the energy efficient on-site generation program shall be to help remove environmental and regulatory barriers to on-site, or distrib-

uted, generation and combined heat and power by developing technologies by 2015 that achieve—

(A) electricity generating efficiencies greater than 40 percent for on-site generation technologies based upon natural gas, including fuel cells, microturbines, reciprocating engines and industrial gas turbines;

(B) combined heat and power total (electric and thermal) efficiencies of more than 85 percent;

(C) fuel flexibility to include hydrogen, biofuels and natural gas;

(D) near zero emissions of pollutants that form smog and acid rain;

(E) reduction of carbon dioxide emissions by at least 40 percent;

(F) packaged system integration at end user facilities providing complete services in heating, cooling, electricity and air quality; and

(G) increased reliability for the consumer and greater stability for the national electricity grid.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying

out research, development, demonstration, and technology deployment activities under this subtitle—

(1) $700,000,000 for fiscal year 2003;

(2) $784,000,000 for fiscal year 2004;

(3) $878,000,000 for fiscal year 2005; and

(4) $983,000,000 for fiscal year 2006.

(d) LIMITATION ON USE OF FUNDS.—None of the funds authorized to be appropriated in subsection (c) may be used for the following programs of the Department—

(1) Weatherization Assistance Program;

(2) State Energy Program; or

(3) Federal Energy Management Program.

SEC. 1212. ENERGY EFFICIENCY SCIENCE INITIATIVE.

(a) ESTABLISHMENT AND AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1211(c), there are authorized to be appropriated not more than $50,000,000 in any fiscal year, for an Energy Efficiency Science Initiative to be managed by the Assistant Secretary in the Department with responsibility for energy conservation under section 203(a)(9) of the Department of Energy Organization Act (42 U.S.C. 7133(a)(9)), in consultation with the Director of the Office of Science, for grants to be competitively awarded and subject to peer review for research relating to energy efficiency.

(b) REPORT.—The Secretary of Energy shall submit to the Committee on Science and the Committee on Appropriations of the United States House of Representatives, and to the Committee on Energy and Natural Resources and the Committee on Appropriations of the United States Senate, an annual report on the activities of the Energy Efficiency Science Initiative, including a description of the process used to award the funds and an explanation of how the research relates to energy efficiency.

SEC. 1213. NEXT GENERATION LIGHTING INITIATIVE.

(a) ESTABLISHMENT.—There is established in the Department a Next Generation Lighting Initiative to research, develop, and conduct demonstration activities on advanced solid-state lighting technologies based on white light emitting diodes.

(b) OBJECTIVES.—

(1) IN GENERAL.—The objectives of the initiative shall be to develop, by 2011, advanced solid-state lighting technologies based on white light emitting diodes that, compared to incandescent and fluorescent lighting technologies, are—

(A) longer lasting;

(B) more energy-efficient; and

(C) cost-competitive.

(2) INORGANIC WHITE LIGHT EMITTING DIODE.—The objective of the initiative with respect to inorganic white light emitting diodes shall be to develop an inorganic white light emitting diode that has an efficiency of 160 lumens per watt and a 10-year lifetime.

(3) ORGANIC WHITE LIGHT EMITTING DIODE.—The objective of the initiative with respect to organic white light emitting diodes shall be to develop an organic white light emitting diode with an efficiency of 100 lumens per watt with a 5-year lifetime that—

(A) illuminates over a full color spectrum;

(B) covers large areas over flexible surfaces; and

(C) does not contain harmful pollutants typical of fluorescent lamps such as mercury.

(c) CONSORTIUM.—

(1) IN GENERAL.—The Secretary shall initiate and manage basic and manufacturing-related research on advanced solid-state lighting technologies based on white light emitting diodes for the initiative, in cooperation with the Next Generation Lighting Initiative Consortium.

(2) COMPOSITION.—The consortium shall be composed of firms, national laboratories, and other

entities so that the consortium is representative of the United States solid-state lighting research, development, and manufacturing expertise as a whole.

(3) FUNDING.—The consortium shall be funded by—

(A) participation fees; and

(B) grants provided under subsection (e)(1).

(4) ELIGIBILITY.—To be eligible to receive a grant under subsection (e)(1), the consortium shall—

(A) enter into a consortium participation agreement that—

(i) is agreed to by all participants; and

(ii) describes the responsibilities of participants, participation fees, and the scope of research activities; and

(B) develop an annual program plan.

(5) INTELLECTUAL PROPERTY.—Participants in the consortium shall have royalty-free nonexclusive rights to use intellectual property derived from consortium research conducted under subsection (e)(1).

(d) PLANNING BOARD.—

(1) IN GENERAL.—Not later than 90 days after the establishment of the consortium, the Secretary shall establish and appoint the members of a plan-

ning board, to be known as the "Next Generation Lighting Initiative Planning Board", to assist the Secretary in carrying out this section.

(2) COMPOSITION.—The planning board shall be composed of—

(A) four members from universities, national laboratories, and other individuals with expertise in advanced solid-state lighting and technologies based on white light emitting diodes; and

(B) three members from a list of not less than six nominees from industry submitted by the consortium.

(3) STUDY.—

(A) IN GENERAL.—Not later than 90 days after the date on which the Secretary appoints members to the planning board, the planning board shall complete a study on strategies for the development and implementation of advanced solid-state lighting technologies based on white light emitting diodes.

(B) REQUIREMENTS.—The study shall develop a comprehensive strategy to implement, through the initiative, the use of white light

emitting diodes to increase energy efficiency and enhance United States competitiveness.

(C) IMPLEMENTATION.—As soon as practicable after the study is submitted to the Secretary, the Secretary shall implement the initiative in accordance with the recommendations of the planning board.

(4) TERMINATION.—The planning board shall terminate upon completion of the study under paragraph (3).

(e) GRANTS.—

(1) FUNDAMENTAL RESEARCH.—The Secretary, through the consortium, shall make grants to conduct basic and manufacturing-related research related to advanced solid-state lighting technologies based on white light emitting diode technologies.

(2) TECHNOLOGY DEVELOPMENT AND DEMONSTRATION.—The Secretary shall enter into grants, contracts, and cooperative agreements to conduct or promote technology research, development, or demonstration activities. In providing funding under this paragraph, the Secretary shall give preference to participants in the consortium.

(3) CONTINUING ASSESSMENT.—The consortium, in collaboration with the Secretary, shall formulate

annual operating and performance objectives, develop technology roadmaps, and recommend research and development priorities for the initiative. The Secretary may also establish or utilize advisory committees, or enter into appropriate arrangements with the National Academy of Sciences, to conduct periodic reviews of the initiative. The Secretary shall consider the results of such assessment and review activities in making funding decisions under paragraphs (1) and (2) of this subsection.

(4) TECHNICAL ASSISTANCE.—The National Laboratories shall cooperate with and provide technical assistance to persons carrying out projects under the initiative.

(5) AUDITS.—

(A) IN GENERAL.—The Secretary shall retain an independent, commercial auditor to determine the extent to which funds made available under this section have been expended in a manner that is consistent with the objectives under subsection (b) and, in the case of funds made available to the consortium, the annual program plan of the consortium under subsection (c)(4)(B).

(B) REPORTS.—The auditor shall submit to Congress, the Secretary, and the Comptroller General of the United States an annual report containing the results of the audit.

(6) APPLICABLE LAW.—Grants, contracts, and cooperative agreements under this section shall not be subject to the Federal Acquisition Regulation.

(f) PROTECTION OF INFORMATION.—Information obtained by the Federal Government on a confidential basis under this section shall be considered to constitute trade secrets and commercial or financial information obtained from a person and privileged or confidential under section 552(b)(4) of title 5, United States Code.

(g) AUTHORIZATION OF APPROPRIATIONS.—In addition to amounts authorized under section 1211(c), there are authorized to be appropriated for activities under this section $50,000,000 for each of fiscal years 2003 through 2011.

(h) DEFINITIONS.—In this section:

(1) ADVANCED SOLID-STATE LIGHTING.—The term "advanced solid-state lighting" means a semiconducting device package and delivery system that produces white light using externally applied voltage.

(2) CONSORTIUM.—The term "consortium" means the Next Generation Lighting Initiative Consortium under subsection (c).

(3) INITIATIVE.—The term "initiative" means the Next Generation Lighting Initiative established under subsection (a).

(4) INORGANIC WHITE LIGHT EMITTING DIODE.—The term "inorganic white light emitting diode" means an inorganic semiconducting package that produces white light using externally applied voltage.

(5) ORGANIC WHITE LIGHT EMITTING DIODE.—The term "organic white light emitting diode" means an organic semiconducting compound that produces white light using externally applied voltage.

(6) WHITE LIGHT EMITTING DIODE.—The term "white light emitting diode" means—

(A) an inorganic white light emitting diode; or

(B) an organic white light emitting diode.

SEC. 1214. RAILROAD EFFICIENCY.

(a) ESTABLISHMENT.—The Secretary shall, in cooperation with the Secretaries of Transportation and Defense, and the Administrator of the Environmental Protection Agency, establish a public-private research partnership involving the Federal Government, railroad carriers, loco-

motive manufacturers, and the Association of American Railroads. The goal of the initiative shall include developing and demonstrating locomotive technologies that increase fuel economy, reduce emissions, improve safety, and lower costs.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out the requirements of this section $60,000,000 for fiscal year 2003 and $70,000,000 for fiscal year 2004.

SEC. 1215. HIGH POWER DENSITY INDUSTRY PROGRAM.

The Secretary shall establish a comprehensive research, development, demonstration and deployment program to improve energy efficiency of high power density facilities, including data centers, server farms, and telecommunications facilities. Such program shall consider technologies that provide significant improvement in thermal controls, metering, load management, peak load reduction, or the efficient cooling of electronics.

SEC. 1216. RESEARCH REGARDING PRECIOUS METAL CATALYSIS.

The Secretary of Energy may, for the purpose of developing improved industrial and automotive catalysts, carry out research in the use of precious metals (excluding platinum, palladium, and rhodium) in catalysis directly, through national laboratories, or through grants to or coop-

erative agreements or contracts with public or nonprofit entities. There are authorized to be appropriated to carry out this section such sums as are necessary for fiscal years 2003 through 2006.

Subtitle B—Renewable Energy

SEC. 1221. ENHANCED RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct balanced energy research, development, demonstration, and technology deployment programs to enhance the use of renewable energy.

(b) PROGRAM GOALS.—

(1) WIND POWER.—The goals of the wind power program shall be to develop, in partnership with industry, a variety of advanced wind turbine designs and manufacturing technologies that are cost-competitive with fossil-fuel generated electricity, with a focus on developing advanced low wind speed technologies that, by 2007, will enable the expanding utilization of widespread class 3 and 4 winds.

(2) PHOTOVOLTAICS.—The goal of the photovoltaic program shall be to develop, in partnership with industry, total photovoltaic systems with installed costs of $4,000 per peak kilowatt by 2005 and $2,000 per peak kilowatt by 2015.

(3) SOLAR THERMAL ELECTRIC SYSTEMS.—The goal of the solar thermal electric systems program shall be to develop, in partnership with industry, solar power technologies (including baseload solar power) that are competitive with fossil-fuel generated electricity by 2015, by combining high-efficiency and high-temperature receivers with advanced thermal storage and power cycles.

(4) BIOMASS-BASED POWER SYSTEMS.—The goal of the biomass program shall be to develop, in partnership with industry, integrated power-generating systems, advanced conversion, and feedstock technologies capable of producing electric power that is cost-competitive with fossil-fuel generated electricity by 2010, together with the production of fuels, chemicals, and other products under paragraph (6).

(5) GEOTHERMAL ENERGY.—The goal of the geothermal program shall be to develop, in partnership with industry, technologies and processes based on advanced hydrothermal systems and advanced heat and power systems, including geothermal heat pump technology, with a specific focus on—

(A) improving exploration and characterization technology to increase the probability of

drilling successful wells from 20 percent to 40 percent by 2006;

(B) reducing the cost of drilling by 2008 to an average cost of $150 per foot; and

(C) developing enhanced geothermal systems technology with the potential to double the useable geothermal resource base.

(6) BIOFUELS.—The goal of the biofuels program shall be to develop, in partnership with industry—

(A) advanced biochemical and thermochemical conversion technologies capable of making liquid and gaseous fuels from cellulosic feedstocks that are price-competitive with gasoline or diesel in either internal combustion engines or fuel cell vehicles by 2010; and

(B) advanced biotechnology processes capable of making biofuels, biobased polymers, and chemicals, with particular emphasis on the development of biorefineries that use enzyme based processing systems.

For purposes of this paragraph, the term "cellulosic feedstock" means any portion of a food crop not normally used in food production or any nonfood crop grown for the purpose of producing biomass feedstock.

(7) HYDROGEN-BASED ENERGY SYSTEMS.—The goals of the hydrogen program shall be to support research and development on technologies for production, storage, and use of hydrogen, including fuel cells and, specifically, fuel-cell vehicle development activities under section 1211.

(8) HYDROPOWER.—The goal of the hydropower program shall be to develop, in partnership with industry, a new generation of turbine technologies that are less damaging to fish and aquatic ecosystems.

(9) ELECTRIC ENERGY SYSTEMS AND STORAGE.—The goals of the electric energy and storage program shall be to develop, in partnership with industry—

(A) generators and transmission, distribution, and storage systems that combine high capacity with high efficiency;

(B) technologies to interconnect distributed energy resources with electric power systems, comply with any national interconnection standards, have a minimum 10-year useful life;

(C) advanced technologies to increase the average efficiency of electric transmission facilities in rural and remote areas, giving priority for demonstrations to advanced transmission

technologies that are being or have been field tested;

(D) the use of new transmission technologies, including flexible alternating current transmission systems, composite conductor materials, advanced protection devices, controllers, and other cost-effective methods and technologies;

(E) the use of superconducting materials in power delivery equipment such as transmission and distribution cables, transformers, and generators;

(F) energy management technologies for enterprises with aggregated loads and distributed generation, such as power parks;

(G) economic and system models to measure the costs and benefits of improved system performance;

(H) hybrid distributed energy systems to optimize two or more distributed or on-site generation technologies; and

(I) real-time transmission and distribution system control technologies that provide for continual exchange of information between generation, transmission, distribution, and end-user facilities.

(c) SPECIAL PROJECTS.—In carrying out this section, the Secretary shall demonstrate—

(1) the use of advanced wind power technology, biomass, geothermal energy systems, and other renewable energy technologies to assist in delivering electricity to rural and remote locations;

(2) the combined use of wind power and coal gasification technologies; and

(3) the use of high temperature superconducting technology in projects to demonstrate the development of superconductors that enhance the reliability, operational flexibility, or power-carrying capability of electric transmission systems or increase the electrical or operational efficiency of electric energy generation, transmission, distribution and storage systems.

(d) FINANCIAL ASSISTANCE TO RURAL AREAS.—In carrying out special projects under subsection (c), the Secretary may provide financial assistance to rural electric cooperatives and other rural entities.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this subtitle—

(1) $500,000,000 for fiscal year 2003;

(2) $595,000,000 for fiscal year 2004;

(3) $683,000,000 for fiscal year 2005; and

(4) $733,000,000 for fiscal year 2006, of which $100,000,000 may be allocated to meet the goals of subsection (b)(1).

SEC. 1222. BIOENERGY PROGRAMS.

(a) PROGRAM DIRECTION.—The Secretary shall carry out research, development, demonstration, and technology development activities related to bioenergy, including programs under paragraphs (4) and (6) of section 1221(b).

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) BIOPOWER ENERGY SYSTEMS.—From amounts authorized under section 1221(e), there are authorized to be appropriated to the Secretary for biopower energy systems—

(A) $60,300,000 for fiscal year 2003;

(B) $69,300,000 for fiscal year 2004;

(C) $79,600,000 for fiscal year 2005; and

(D) $86,250,000 for fiscal year 2006.

(2) BIOFUELS ENERGY SYSTEMS.—From amounts authorized under section 1221(e), there are authorized to be appropriated to the Secretary for biofuels energy systems—

(A) $57,500,000 for fiscal year 2003;

(B) $66,125,000 for fiscal year 2004;

(C) $76,000,000 for fiscal year 2005; and

(D) $81,400,000 for fiscal year 2006.

(3) INTEGRATED BIOENERGY RESEARCH AND DEVELOPMENT.—The Secretary may use funds authorized under paragraph (1) or (2) for programs, projects, or activities that integrate applications for both biopower and biofuels, including cross-cutting research and development in feedstocks and economic analysis.

SEC. 1223. HYDROGEN RESEARCH AND DEVELOPMENT.

(a) SHORT TITLE.—This section may be cited as the "Hydrogen Future Act of 2002".

(b) PURPOSES.—Section 102(b) of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12401(b)) is amended by striking paragraphs (2) and (3) and inserting the following:

"(2) to direct the Secretary to develop a program of technology assessment, information transfer, and education in which Federal agencies, members of the transportation, energy, and other industries, and other entities may participate;

"(3) to develop methods of hydrogen production that minimize production of greenhouse gases, including developing—

"(A) efficient production from nonrenewable resources; and

"(B) cost-effective production from renewable resources such as biomass, geothermal, wind, and solar energy; and

"(4) to foster the use of hydrogen as a major energy source, including developing the use of hydrogen in—

"(A) isolated villages, islands, and communities in which other energy sources are not available or are very expensive; and

"(B) foreign economic development, to avoid environmental damage from increased fossil fuel use.".

(c) REPORT TO CONGRESS.—Section 103 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12402) is amended—

(1) in subsection (a), by striking "January 1, 1999," and inserting "1 year after the date of enactment of the Hydrogen Future Act of 2002, and biennially thereafter,";

(2) in subsection (b), by striking paragraphs (1) and (2) and inserting the following:

"(1) an analysis of hydrogen-related activities throughout the United States Government to identify productive areas for increased intragovernmental collaboration;

"(2) recommendations of the Hydrogen Technical Advisory Panel established by section 108 for any improvements in the program that are needed, including recommendations for additional legislation; and

"(3) to the extent practicable, an analysis of State and local hydrogen-related activities."; and

(3) by adding at the end the following:

"(c) COORDINATION PLAN.—The report under subsection (a) shall be based on a comprehensive coordination plan for hydrogen energy prepared by the Secretary in consultation with other Federal agencies.".

(d) HYDROGEN RESEARCH AND DEVELOPMENT.—Section 104 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12403) is amended—

(1) in subsection (b)(1), by striking "marketplace;" and inserting "marketplace, including foreign markets, particularly where an energy infrastructure is not well developed;";

(2) in subsection (e), by striking "this chapter" and inserting "this Act";

(3) by striking subsection (g) and inserting the following:

"(g) COST SHARING.—

"(1) INABILITY TO FUND ENTIRE COST.—The Secretary shall not consider a proposal submitted by a person from industry unless the proposal contains a certification that—

"(A) reasonable efforts to obtain non-Federal funding in the amount necessary to pay 100 percent of the cost of the project have been made; and

"(B) non-Federal funding in that amount could not reasonably be obtained.

"(2) NON-FEDERAL SHARE.—

"(A) IN GENERAL.—The Secretary shall require a commitment from non-Federal sources of at least 25 percent of the cost of the project.

"(B) REDUCTION OR ELIMINATION.—The Secretary may reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for technical analyses, economic analyses, outreach activities, and educational programs, if the Secretary determines that reduction or elimination is necessary to achieve the objectives of this Act.";

(4) in subsection (i), by striking "this chapter" and inserting "this Act".

(e) DEMONSTRATIONS.—Section 105 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12404) is amended by striking subsection (c) and inserting the following:

"(c) NON-FEDERAL SHARE.—

"(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs directly relating to a demonstration project under this section.

"(2) REDUCTION.—The Secretary may reduce the non-Federal requirement under paragraph (1) if the Secretary determines that the reduction is appropriate considering the technological risks involved in the project and is necessary to meet the objectives of this Act.".

(f) TECHNOLOGY TRANSFER.—Section 106 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12405) is amended—

(1) in subsection (a)—

(A) in the first sentence—

(i) by striking "The Secretary shall conduct a program designed to accelerate

wider application" and inserting the following:

"(1) IN GENERAL.—The Secretary shall conduct a program designed to—

"(A) accelerate wider application"; and

(ii) by striking "private sector" and inserting "private sector; and

"(B) accelerate wider application of hydrogen technologies in foreign countries to increase the global market for the technologies and foster global economic development without harmful environmental effects."; and

(B) in the second sentence, by striking "The Secretary" and inserting the following:

"(2) ADVICE AND ASSISTANCE.—The Secretary"; and

(2) in subsection (b)—

(A) in paragraph (2), by redesignating subparagraphs (A) through (D) as clauses (i) through (iv), respectively, and indenting appropriately;

(B) by redesignating paragraphs (1) and (2) as subparagraphs (A) and (B), respectively, and indenting appropriately;

(C) by striking "The Secretary, in" and inserting the following:

"(1) IN GENERAL.—The Secretary, in";

(D) by striking "The information" and inserting the following:

"(2) ACTIVITIES.—The information"; and

(E) in paragraph (1) (as designated by subparagraph (C))—

(i) in subparagraph (A) (as redesignated by subparagraph (B)), by striking "an inventory" and inserting "an update of the inventory"; and

(ii) in subparagraph (B) (as redesignated by subparagraph (B)), by striking "develop" and all that follows through "to improve" and inserting "develop with the National Aeronautics and Space Administration, the Department of Energy, other Federal agencies as appropriate, and industry, an information exchange program to improve".

(g) TECHNICAL PANEL REVIEW.—

(1) IN GENERAL.—Section 108 of the Spark M. Matsunaga Hydrogen Research, Development, and

Demonstration Act of 1990 (42 U.S.C. 12407) is amended—

(A) in subsection (b)—

(i) by striking "(b) MEMBERSHIP.—The technical panel shall be appointed" and inserting the following:

"(b) MEMBERSHIP.—

"(1) IN GENERAL.—The technical panel shall be comprised of not fewer than 9 nor more than 15 members appointed";

(ii) by striking the second sentence and inserting the following:

"(2) TERMS.—

"(A) IN GENERAL.—The term of a member of the technical panel shall be not more than 3 years.

"(B) STAGGERED TERMS.—The Secretary may appoint members of the technical panel in a manner that allows the terms of the members serving at any time to expire at spaced intervals so as to ensure continuity in the functioning of the technical panel.

"(C) REAPPOINTMENT.—A member of the technical panel whose term expires may be re-appointed."; and

(iii) by striking "The technical panel shall have a chairman," and inserting the following:

"(3) CHAIRPERSON.—The technical panel shall have a chairperson,"; and

(B) in subsection (d)—

(i) in the matter preceding paragraph (1), by striking "the following items";

(ii) in paragraph (1), by striking "and" at the end;

(iii) in paragraph (2), by striking the period at the end and inserting "; and"; and

(iv) by adding at the end the following:

"(3) the plan developed by the interagency task force under section 202(b) of the Hydrogen Future Act of 1996.".

(2) NEW APPOINTMENTS.—Not later than 180 days after the date of enactment of this Act, the Secretary—

(A) shall review the membership composition of the Hydrogen Technical Advisory Panel; and

(B) may appoint new members consistent with the amendments made by subsection (a).

(h) AUTHORIZATION OF APPROPRIATIONS.—Section 109 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12408) is amended—

(1) in paragraph (8), by striking "and";

(2) in paragraph (9), by striking the period and inserting a semicolon; and

(3) by adding at the end the following:

"(10) $65,000,000 for fiscal year 2003;

"(11) $70,000,000 for fiscal year 2004;

"(12) $75,000,000 for fiscal year 2005; and

"(13) $80,000,000 for fiscal year 2006.".

(i) FUEL CELLS.—

(1) INTEGRATION OF FUEL CELLS WITH HYDROGEN PRODUCTION SYSTEMS.—Section 201 of the Hydrogen Future Act of 1996 is amended—

(A) in subsection (a) by striking "(a) Not later than 180 days after the date of enactment of this section, and subject" and inserting "(a) IN GENERAL.—Subject";

(B) by striking "with—" and all that follows and inserting "into Federal, State, and local government facilities for stationary and transportation applications.";

(C) in subsection (b), by striking "gas is" and inserting "basis";

(D) in subsection (c)(2), by striking "systems described in subsections (a)(1) and (a)(2)" and inserting "projects proposed"; and

(E) by striking subsection (d) and inserting the following:

"(d) NON-FEDERAL SHARE.—

"(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs directly relating to a demonstration project under this section.

"(2) REDUCTION.—The Secretary may reduce the non-Federal requirement under paragraph (1) if the Secretary determines that the reduction is appropriate considering the technological risks involved in the project and is necessary to meet the objectives of this Act.".

(2) COOPERATIVE AND COST-SHARING AGREEMENTS; INTEGRATION OF TECHNICAL INFORMATION.—Title II of the Hydrogen Future Act of 1996 (42 U.S.C. 12403 note; Public Law 104–271) is amended by striking section 202 and inserting the following:

"SEC. 202. INTERAGENCY TASK FORCE.

"(a) ESTABLISHMENT.—Not later than 120 days after the date of enactment of this section, the Secretary shall establish an interagency task force led by a Deputy Assistant Secretary of the Department of Energy and comprised of representatives of—

"(1) the Office of Science and Technology Policy;

"(2) the Department of Transportation;

"(3) the Department of Defense;

"(4) the Department of Commerce (including the National Institute for Standards and Technology);

"(5) the Environmental Protection Agency;

"(6) the National Aeronautics and Space Administration; and

"(7) other agencies as appropriate.

"(b) DUTIES.—

"(1) IN GENERAL.—The task force shall develop a plan for carrying out this title.

"(2) FOCUS OF PLAN.—The plan shall focus on development and demonstration of integrated systems and components for—

"(A) hydrogen production, storage, and use in Federal, State, and local government buildings and vehicles;

"(B) hydrogen-based infrastructure for buses and other fleet transportation systems that include zero-emission vehicles; and

"(C) hydrogen-based distributed power generation, including the generation of combined heat, power, and hydrogen.

"SEC. 203. COOPERATIVE AND COST-SHARING AGREEMENTS.

"The Secretary shall enter into cooperative and cost-sharing agreements with Federal, State, and local agencies for participation by the agencies in demonstrations at facilities administered by the agencies, with the aim of integrating high efficiency hydrogen systems using fuel cells into the facilities to provide immediate benefits and promote a smooth transition to hydrogen as an energy source.

"SEC. 204. INTEGRATION AND DISSEMINATION OF TECHNICAL INFORMATION.

"The Secretary shall—

"(1) integrate all the technical information that becomes available as a result of development and demonstration projects under this title;

"(2) make the information available to all Federal and State agencies for dissemination to all interested persons; and

"(3) foster the exchange of generic, nonproprietary information and technology developed under this title among industry, academia, and Federal, State, and local governments, to help the United States economy attain the economic benefits of the information and technology.

"SEC. 205. AUTHORIZATION OF APPROPRIATIONS.

"There are authorized to be appropriated, for activities under this title—

"(1) $25,000,000 for fiscal year 2003;

"(2) $30,000,000 for fiscal year 2004;

"(3) $35,000,000 for fiscal year 2005; and

"(4) $40,000,000 for fiscal year 2006.".

Subtitle C—Fossil Energy

SEC. 1231. ENHANCED FOSSIL ENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct a balanced energy research, development, demonstration, and technology deployment program to enhance fossil energy.

(b) PROGRAM GOALS.—

(1) CORE FOSSIL RESEARCH AND DEVELOPMENT.—The goals of the core fossil research and development program shall be to reduce emissions from fossil fuel use by developing technologies, including

precombustion technologies, by 2015 with the capability of realizing—

(A) electricity generating efficiencies of 60 percent for coal and 75 percent for natural gas;

(B) combined heat and power thermal efficiencies of more than 85 percent;

(C) fuels utilization efficiency of 75 percent for the production of liquid transportation fuels from coal;

(D) near zero emissions of mercury and of emissions that form fine particles, smog, and acid rain;

(E) reduction of carbon dioxide emissions by at least 40 percent through efficiency improvements and 100 percent with sequestration; and

(F) improved reliability, efficiency, reductions of air pollutant emissions, or reductions in solid waste disposal requirements.

(2) OFFSHORE OIL AND NATURAL GAS RESOURCES.—The goal of the offshore oil and natural gas resources program shall be to develop technologies to—

(A) extract methane hydrates in coastal waters of the United States, and

(B) develop natural gas and oil reserves in the ultra-deepwater of the Central and Western Gulf of Mexico.

(3) ONSHORE OIL AND NATURAL GAS RESOURCES.—The goal of the onshore oil and natural gas resources program shall be to advance the science and technology available to domestic onshore petroleum producers, particularly independent operators, through—

(A) advances in technology for exploration and production of domestic petroleum resources, particularly those not accessible with current technology;

(B) improvement in the ability to extract hydrocarbons from known reservoirs and classes of reservoirs; and

(C) development of technologies and practices that reduce the threat to the environment from petroleum exploration and production and decrease the cost of effective environmental compliance.

(4) TRANSPORTATION FUELS.—The goals of the transportation fuels program shall be to increase the price elasticity of oil supply and demand by focusing research on—

(A) reducing the cost of producing transportation fuels from coal and natural gas; and

(B) indirect liquefaction of coal and biomass.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this section—

(A) $485,000,000 for fiscal year 2003;

(B) $508,000,000 for fiscal year 2004;

(C) $532,000,000 for fiscal year 2005; and

(D) $558,000,000 for fiscal year 2006.

(2) LIMITS ON USE OF FUNDS.—None of the funds authorized in paragraph (1) may be used for—

(A) fossil energy environmental restoration;

(B) import/export authorization;

(C) program direction; or

(D) general plant projects.

(3) COAL-BASED PROJECTS.—The coal-based projects funded under this section shall be consistent with the goals in subsection (b). The program shall emphasize carbon capture and sequestration technologies and gasification technologies, including gasification combined cycle, gasification fuel cells, gasifi-

cation co-production, hybrid gasification/combustion, or other technology with the potential to address the goals in subparagraphs (D) or (E) of subsection (b)(1).

SEC. 1232. POWER PLANT IMPROVEMENT INITIATIVE.

(a) PROGRAM DIRECTION.—The Secretary shall conduct a balanced energy research, development, demonstration, and technology deployment program to demonstrate commercial applications of advanced lignite and coal-based technologies applicable to new or existing power plants (including co-production plants) that advance the efficiency, environmental performance, and cost-competitiveness substantially beyond technologies that are in operation or have been demonstrated by the date of enactment of this subtitle.

(b) TECHNICAL MILESTONES.—

(1) IN GENERAL.—The Secretary shall set technical milestones specifying efficiency and emissions levels that projects shall be designed to achieve. The milestones shall become more restrictive over the life of the program.

(2) 2010 EFFICIENCY MILESTONES.—The milestones shall be designed to achieve by 2010 interim thermal efficiency of—

(A) forty-five percent for coal of more than 9,000 Btu;

(B) forty-four percent for coal of 7,000 to 9,000 Btu; and

(C) forty-two percent for coal of less than 7,000 Btu.

(3) 2020 EFFICIENCY MILESTONES.—The milestones shall be designed to achieve by 2020 thermal efficiency of—

(A) sixty percent for coal of more than 9,000 Btu;

(B) fifty-nine percent for coal of 7,000 to 9,000 Btu; and

(C) fifty-seven percent for coal of less than 7,000 Btu.

(4) EMISSIONS MILESTONES.—The milestones shall include near zero emissions of mercury and greenhouse gases and of emissions that form fine particles, smog, and acid rain.

(5) REGIONAL AND QUALITY DIFFERENCES.—The Secretary may consider regional and quality differences in developing the efficiency milestones.

(c) PROJECT CRITERIA.—The demonstration activities proposed to be conducted at a new or existing coal-based electric generation unit having a nameplate rating of not less than 100 megawatts, excluding a co-production plant, shall include at least one of the following—

(1) a means of recycling or reusing a significant portion of coal combustion wastes produced by coal-based generating units, excluding practices that are commercially available by the date of enactment of this subtitle;

(2) a means of capture and sequestering emissions, including greenhouse gases, in a manner that is more effective and substantially below the cost of technologies that are in operation or that have been demonstrated by the date of enactment of this subtitle;

(3) a means of controlling sulfur dioxide and nitrogen oxide or mercury in a manner that improves environmental performance beyond technologies that are in operation or that have been demonstrated by the date of enactment of this subtitle—

(A) in the case of an existing unit, achieve an overall thermal design efficiency improvement compared to the efficiency of the unit as operated, of not less than—

(i) 7 percent for coal of more than 9,000 Btu;

(ii) 6 percent for coal of 7,000 to 9,000 Btu; or

(iii) 4 percent for coal of less than 7,000 Btu; or

(B) in the case of a new unit, achieve the efficiency milestones set for in subsection (b) compared to the efficiency of a typical unit as operated on the date of enactment of this subtitle, before any retrofit, repowering, replacement, or installation.

(d) STUDY.—The Secretary, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of the Interior, and interested entities (including coal producers, industries using coal, organizations to promote coal or advanced coal technologies, environmental organizations, and organizations representing workers), shall conduct an assessment that identifies performance criteria that would be necessary for coal-based technologies to meet, to enable future reliance on coal in an environmentally sustainable manner for electricity generation, use as a chemical feedstock, and use as a transportation fuel.

(e) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary for carrying out activities under this section $200,000,000 for each of fiscal years 2003 through 2011.

(2) LIMITATION ON FUNDING OF PROJECTS.—Eighty percent of the funding under this section shall be limited to—

(A) carbon capture and sequestration technologies;

(B) gasification technologies, including gasification combined cycle, gasification fuel cells, gasification co-production, or hybrid gasification/combustion; or

(C) other technology either by itself or in conjunction with other technologies that has the potential to achieve near zero emissions.

SEC. 1233. RESEARCH AND DEVELOPMENT FOR ADVANCED SAFE AND EFFICIENT COAL MINING TECHNOLOGIES.

(a) ESTABLISHMENT.—The Secretary of Energy shall establish a cooperative research partnership involving appropriate Federal agencies, coal producers, including associations, equipment manufacturers, universities with mining engineering departments, and other relevant entities to—

(1) develop mining research priorities identified by the Mining Industry of the Future Program and in the recommendations from relevant reports of the National Academy of Sciences on mining technologies;

(2) establish a process for conducting joint industry-Government research and development; and

(3) expand mining research capabilities at institutions of higher education.

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out activities under this section, $12,000,000 in fiscal year 2003 and $15,000,000 in fiscal year 2004.

(2) LIMIT ON USE OF FUNDS.—Not less than 20 percent of any funds appropriated in a given fiscal year under this subsection shall be dedicated to research carried out at institutions of higher education.

SEC. 1234. ULTRA-DEEPWATER AND UNCONVENTIONAL RESOURCE EXPLORATION AND PRODUCTION TECHNOLOGIES.

(a) DEFINITIONS.—In this section:

(1) ADVISORY COMMITTEE.—The term "Advisory Committee" means the Ultra-Deepwater and Unconventional Resource Technology Advisory Committee established under subsection (c).

(2) AWARD.—The term "award" means a cooperative agreement, contract, award or other types of agreement as appropriate.

(3) DEEPWATER.—The term "deepwater" means a water depth that is greater than 200 but less than 1,500 meters.

(4) ELIGIBLE AWARD RECIPIENT.—The term "eligible award recipient" includes—

(A) a research institution;

(B) an institution of higher education;

(C) a corporation; and

(D) a managing consortium formed among entities described in subparagraphs (A) through (C).

(5) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given the term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

(6) MANAGING CONSORTIUM.—The term "managing consortium" means an entity that—

(A) exists as of the date of enactment of this section;

(B)(i) is an organization described in section 501(c)(3) of the Internal Revenue Code of 1986; and

(ii) is exempt from taxation under section 501(a) of that Code;

(C) is experienced in planning and managing programs in natural gas or other petroleum exploration and production research, development, and demonstration; and

(D) has demonstrated capabilities and experience in representing the views and priorities of industry, institutions of higher education and other research institutions in formulating comprehensive research and development plans and programs.

(7) PROGRAM.—The term "program" means the program of research, development, and demonstration established under subsection (b)(1)(A).

(8) ULTRA-DEEPWATER.—The term "ultra-deepwater" means a water depth that is equal to or greater than 1,500 meters.

(9) ULTRA-DEEPWATER ARCHITECTURE.—The term "ultra-deepwater architecture" means the integration of technologies to explore and produce natural gas or petroleum products located at ultra-deepwater depths.

(10) ULTRA-DEEPWATER RESOURCE.—The term "ultra-deepwater resource" means natural gas or any other petroleum resource (including methane hydrate) located in an ultra-deepwater area.

(11) UNCONVENTIONAL RESOURCE.—The term "unconventional resource" means natural gas or any other petroleum resource located in a formation on physically or economically inaccessible land currently

available for lease for purposes of natural gas or other petroleum exploration or production.

(b) ULTRA-DEEPWATER AND UNCONVENTIONAL EXPLORATION AND PRODUCTION PROGRAM.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—The Secretary shall establish a program of research into, and development and demonstration of, ultra-deepwater resource and unconventional resource exploration and production technologies.

(B) LOCATION; IMPLEMENTATION.—The program under this subsection shall be carried out—

(i) in areas on the outer Continental Shelf that, as of the date of enactment of this section, are available for leasing; and

(ii) on unconventional resources.

(2) COMPONENTS.—The program shall include one or more programs for long-term research into—

(A) new deepwater ultra-deepwater resource and unconventional resource exploration and production technologies; or

(B) environmental mitigation technologies for production of ultra-deepwater resource and unconventional resource.

(c) ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—Not later than 30 days after the date of enactment of this section, the Secretary shall establish an advisory committee to be known as the "Ultra-Deepwater and Unconventional Resource Technology Advisory Committee".

(2) MEMBERSHIP.—

(A) COMPOSITION.—Subject to subparagraph (B), the advisory committee shall be composed of seven members appointed by the Secretary that—

(i) have extensive operational knowledge of and experience in the natural gas and other petroleum exploration and production industry; and

(ii) are not Federal employees or employees of contractors to a Federal agency.

(B) EXPERTISE.—Of the members of the advisory committee appointed under subparagraph (A)—

(i) at least four members shall have extensive knowledge of ultra-deepwater resource exploration and production technologies;

(ii) at least three members shall have extensive knowledge of unconventional resource exploration and production technologies.

(3) DUTIES.—The advisory committee shall advise the Secretary in the implementation of this section.

(4) COMPENSATION.—A member of the advisory committee shall serve without compensation but shall receive travel expenses, including per diem in lieu of subsistence, in accordance with applicable provisions under subchapter I of chapter 57 of title 5, United States Code.

(d) AWARDS.—

(1) TYPES OF AWARDS.—

(A) ULTRA-DEEPWATER RESOURCES.—

(i) IN GENERAL.—The Secretary shall make awards for research into, and development and demonstration of, ultra-deepwater resource exploration and production technologies—

(I) to maximize the value of the ultra-deepwater resources of the United States;

(II) to increase the supply of ultra-deepwater resources by lowering the cost and improving the efficiency of exploration and production of such resources; and

(III) to improve safety and minimize negative environmental impacts of that exploration and production.

(ii) ULTRA-DEEPWATER ARCHITECTURE.—In furtherance of the purposes described in clause (i), the Secretary shall, where appropriate, solicit proposals from a managing consortium to develop and demonstrate next-generation architecture for ultra-deepwater resource production.

(B) UNCONVENTIONAL RESOURCES.—The Secretary shall make awards—

(i) to carry out research into, and development and demonstration of, technologies to maximize the value of unconventional resources; and

(ii) to develop technologies to simultaneously—

(I) increase the supply of unconventional resources by lowering the cost

and improving the efficiency of exploration and production of unconventional resources; and

(II) improve safety and minimize negative environmental impacts of that exploration and production.

(2) CONDITIONS.—An award made under this subsection shall be subject to the following conditions:

(A) MULTIPLE ENTITIES.—If an award recipient is composed of more than one eligible organization, the recipient shall provide a signed contract, agreed to by all eligible organizations comprising the award recipient, that defines, in a manner that is consistent with all applicable law in effect as of the date of the contract, all rights to intellectual property for—

(i) technology in existence as of that date; and

(ii) future inventions conceived and developed using funds provided under the award.

(B) COMPONENTS OF APPLICATION.—An application for an award for a demonstration project shall describe with specificity any in-

tended commercial applications of the technology to be demonstrated.

(C) COST SHARING.—Non-Federal cost sharing shall be in accordance with section 1403.

(e) PLAN AND FUNDING.—

(1) IN GENERAL.—The Secretary, and where appropriate, a managing consortium under subsection (d)(1)(A)(ii), shall formulate annual operating and performance objectives, develop multiyear technology roadmaps, and establish research and development priorities for the funding of activities under this section which will serve as guidelines for making awards including cost-matching objectives.

(2) INDUSTRY INPUT.—In carrying out this program, the Secretary shall promote maximum industry input through the use of managing consortia or other organizations in planning and executing the research areas and conducting workshops or reviews to ensure that this program focuses on industry problems and needs.

(f) AUDITING.—

(1) IN GENERAL.—The Secretary shall retain an independent, commercial auditor to determine the extent to which funds authorized by this section, provided through a managing consortium, are expended

in a manner consistent with the purposes of this section.

(2) REPORTS.—The auditor retained under paragraph (1) shall submit to the Secretary, and the Secretary shall transmit to the appropriate congressional committees, an annual report that describes—

(A) the findings of the auditor under paragraph (1); and

(B) a plan under which the Secretary may remedy any deficiencies identified by the auditor.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section.

(h) TERMINATION OF AUTHORITY.—The authority provided by this section shall terminate on September 30, 2009.

(i) SAVINGS PROVISION.—Nothing in this section is intended to displace, duplicate or diminish any previously authorized research activities of the Department of Energy.

SEC. 1235. RESEARCH AND DEVELOPMENT FOR NEW NATURAL GAS TRANSPORTATION TECHNOLOGIES.

The Secretary of Energy shall conduct a comprehensive 5-year program for research, development and demonstration to improve the reliability, efficiency, safety and integ-

rity of the natural gas transportation and distribution infrastructure and for distributed energy resources (including microturbines, fuel cells, advanced engine-generators, gas turbines, reciprocating engines, hybrid power generation systems, and all ancillary equipment for dispatch, control and maintenance).

SEC. 1236. AUTHORIZATION OF APPROPRIATIONS FOR OFFICE OF ARCTIC ENERGY.

There are authorized to be appropriated to the Secretary for the Office of Arctic Energy under section 3197 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law 106–398) such sums as may be necessary, but not to exceed $25,000,000 for each of fiscal years 2003 through 2011.

SEC. 1237. CLEAN COAL TECHNOLOGY LOAN.

There is authorized to be appropriated not to exceed $125,000,000 to the Secretary of Energy to provide a loan to the owner of the experimental plant constructed under United States Department of Energy cooperative agreement number DE–FC22–91PC99544 on such terms and conditions as the Secretary determines, including interest rates and upfront payments.

Subtitle D—Nuclear Energy

SEC. 1241. ENHANCED NUCLEAR ENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall conduct an energy research, development, demonstration, and technology deployment program to enhance nuclear energy.

(b) PROGRAM GOALS.—The program shall—

(1) support research related to existing United States nuclear power reactors to extend their lifetimes and increase their reliability while optimizing their current operations for greater efficiencies;

(2) examine—

(A) advanced proliferation-resistant and passively safe reactor designs;

(B) new reactor designs with higher efficiency, lower cost, and improved safety;

(C) in coordination with activities carried out under the amendments made by section 1223, designs for a high temperature reactor capable of producing large-scale quantities of hydrogen using thermochemical processes;

(D) proliferation-resistant and high-burn-up nuclear fuels;

(E) minimization of generation of radioactive materials;

(F) improved nuclear waste management technologies; and

(G) improved instrumentation science;

(3) attract new students and faculty to the nuclear sciences and nuclear engineering and related fields (including health physics and nuclear and radiochemistry) through—

(A) university-based fundamental research for existing faculty and new junior faculty;

(B) support for the re-licensing of existing training reactors at universities in conjunction with industry; and

(C) completing the conversion of existing training reactors with proliferation-resistant fuels that are low enriched and to adapt those reactors to new investigative uses;

(4) maintain a national capability and infrastructure to produce medical isotopes and ensure a well trained cadre of nuclear medicine specialists in partnership with industry;

(5) ensure that our nation has adequate capability to power future satellite and space missions; and

(6) maintain, where appropriate through a prioritization process, a balanced research infrastruc-

ture so that future research programs can use these facilities.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) CORE NUCLEAR RESEARCH PROGRAMS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under subsection (b)(1) through (3)—

(A) $100,000,000 for fiscal year 2003;

(B) $110,000,000 for fiscal year 2004;

(C) $120,000,000 for fiscal year 2005; and

(D) $130,000,000 for fiscal year 2006.

(2) SUPPORTING NUCLEAR ACTIVITIES.—There are authorized to be appropriated to the Secretary for carrying out activities under subsection (b)(4) through (6), as well as nuclear facilities management and program direction—

(A) $200,000,000 for fiscal year 2003;

(B) $202,000,000 for fiscal year 2004;

(C) $207,000,000 for fiscal year 2005; and

(D) $212,000,000 for fiscal year 2006.

SEC. 1242. UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.

(a) ESTABLISHMENT.—The Secretary shall support a program to maintain the nation's human resource invest-

ment and infrastructure in the nuclear sciences and engineering and related fields (including health physics and nuclear and radiochemistry), consistent with departmental missions related to civilian nuclear research and development.

(b) DUTIES.—In carrying out the program under this section, the Secretary shall—

(1) develop a graduate and undergraduate fellowship program to attract new and talented students;

(2) assist universities in recruiting and retaining new faculty in the nuclear sciences and engineering through a Junior Faculty Research Initiation Grant Program;

(3) support fundamental nuclear sciences and engineering research through the Nuclear Engineering Education Research Program;

(4) encourage collaborative nuclear research between industry, national laboratories and universities through the Nuclear Energy Research Initiative; and

(5) support communication and outreach related to nuclear science and engineering.

(c) MAINTAINING UNIVERSITY RESEARCH AND TRAINING REACTORS AND ASSOCIATED INFRASTRUCTURE.—Activities under this section may include:

(1) Converting research reactors to low-enrichment fuels, upgrading operational instrumentation, and sharing of reactors among universities.

(2) Providing technical assistance, in collaboration with the United States nuclear industry, in relicensing and upgrading training reactors as part of a student training program.

(3) Providing funding for reactor improvements as part of a focused effort that emphasizes research, training, and education.

(d) UNIVERSITY-NATIONAL LABORATORY INTERACTIONS.—The Secretary shall develop—

(1) a sabbatical fellowship program for university professors to spend extended periods of time at National Laboratories in the areas of nuclear science and technology; and

(2) a visiting scientist program in which National Laboratory staff can spend time in academic nuclear science and engineering departments. The Secretary may provide for fellowships for students to spend time at National Laboratories in the area of nuclear science with a member of the Laboratory staff acting as a mentor.

(e) OPERATING AND MAINTENANCE COSTS.—Funding for a research project provided under this section may be

used to offset a portion of the operating and maintenance costs of a university research reactor used in the research project, on a cost-shared basis with the university.

(f) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c)(1), the following amounts are authorized for activities under this section—

(1) $33,000,000 for fiscal year 2003;

(2) $37,900,000 for fiscal year 2004;

(3) $43,600,000 for fiscal year 2005; and

(4) $50,100,000 for fiscal year 2006.

SEC. 1243. NUCLEAR ENERGY RESEARCH INITIATIVE.

(a) ESTABLISHMENT.—The Secretary shall support a Nuclear Energy Research Initiative for grants for research relating to nuclear energy.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for each fiscal year.

SEC. 1244. NUCLEAR ENERGY PLANT OPTIMIZATION PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall support a Nuclear Energy Plant Optimization Program for grants to improve nuclear energy plant reliability, availability, and productivity. Notwithstanding section 1403, the program shall require industry cost-sharing of at least 50 percent

and be subject to annual review by the Nuclear Energy Research Advisory Committee of the Department.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for each fiscal year.

SEC. 1245. NUCLEAR ENERGY TECHNOLOGY DEVELOPMENT PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall support a Nuclear Energy Technology Development Program to develop a technology roadmap to design and develop new nuclear energy powerplants in the United States.

(b) GENERATION IV REACTOR STUDY.—The Secretary shall, as part of the program under subsection (a), also conduct a study of Generation IV nuclear energy systems, including development of a technology roadmap and performance of research and development necessary to make an informed technical decision regarding the most promising candidates for commercial deployment. The study shall examine advanced proliferation-resistant and passively safe reactor designs, new reactor designs with higher efficiency, lower cost and improved safety, proliferation-resistant and high burn-up fuels, minimization of generation of radioactive materials, improved nuclear waste management technologies, and improved instrumentation science. Not later

than December 31, 2002, the Secretary shall submit to Congress a report describing the results of the study.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized to be appropriated under section 1241(c), there are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for each fiscal year.

Subtitle E—Fundamental Energy Science

SEC. 1251. ENHANCED PROGRAMS IN FUNDAMENTAL ENERGY SCIENCE.

(a) PROGRAM DIRECTION.—The Secretary, acting through the Office of Science, shall—

(1) conduct a comprehensive program of fundamental research, including research on chemical sciences, physics, materials sciences, biological and environmental sciences, geosciences, engineering sciences, plasma sciences, mathematics, and advanced scientific computing;

(2) maintain, upgrade and expand the scientific user facilities maintained by the Office of Science and ensure that they are an integral part of the departmental mission for exploring the frontiers of fundamental science;

(3) maintain a leading-edge research capability in the energy-related aspects of nanoscience and nanotechnology, advanced scientific computing and genome research; and

(4) ensure that its fundamental science programs, where appropriate, help inform the applied research and development programs of the Department.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out research, development, demonstration, and technology deployment activities under this subtitle—

(1) $3,785,000,000 for fiscal year 2003;

(2) $4,153,000,000 for fiscal year 2004;

(3) $4,586,000,000 for fiscal year 2005; and

(4) $5,000,000,000 for fiscal year 2006.

SEC. 1252. NANOSCALE SCIENCE AND ENGINEERING RESEARCH.

(a) ESTABLISHMENT.—The Secretary, acting through the Office of Science, shall support a program of research and development in nanoscience and nanoengineering consistent with the Department's statutory authorities related to research and development. The program shall include efforts to further the understanding of the chemistry, physics, materials science and engineering of phenomena on the scale of 1 to 100 nanometers.

(b) DUTIES OF THE OFFICE OF SCIENCE.—In carrying out the program under this section, the Office of Science shall—

(1) support both individual investigators and multidisciplinary teams of investigators;

(2) pursuant to subsection (c), develop, plan, construct, acquire, or operate special equipment or facilities for the use of investigators conducting research and development in nanoscience and nanoengineering;

(3) support technology transfer activities to benefit industry and other users of nanoscience and nanoengineering; and

(4) coordinate research and development activities with industry and other Federal agencies.

(c) NANOSCIENCE AND NANOENGINEERING RESEARCH CENTERS AND MAJOR INSTRUMENTATION.—

(1) AUTHORIZATION.—From amounts authorized to be appropriated under section 1251(b), the amounts specified under subsection (d)(2) shall, subject to appropriations, be available for projects to develop, plan, construct, acquire, or operate special equipment, instrumentation, or facilities for investigators conducting research and development in nanoscience and nanoengineering.

(2) PROJECTS.—Projects under paragraph (1) may include the measurement of properties at the scale of 1 to 100 nanometers, manipulation at such scales, and the integration of technologies based on nanoscience or nanoengineering into bulk materials or other technologies.

(3) FACILITIES.—Facilities under paragraph (1) may include electron microcharacterization facilities, microlithography facilities, scanning probe facilities and related instrumentation science.

(4) COLLABORATION.—The Secretary shall encourage collaborations among universities, laboratories and industry at facilities under this subsection. At least one facility under this subsection shall have a specific mission of technology transfer to other institutions and to industry.

(d) AUTHORIZATION OF APPROPRIATIONS.—

(1) TOTAL AUTHORIZATION.—From amounts authorized to be appropriated under section 1251(b), the following amounts are authorized for activities under this section—

(A) $270,000,000 for fiscal year 2003;

(B) $290,000,000 for fiscal year 2004;

(C) $310,000,000 for fiscal year 2005; and

(D) $330,000,000 for fiscal year 2006.

(2) NANOSCIENCE AND NANOENGINEERING RESEARCH CENTERS AND MAJOR INSTRUMENTATION.—Of the amounts under paragraph (1), the following amounts are authorized to carry out subsection (c)—

(A) $135,000,000 for fiscal year 2003;

(B) $150,000,000 for fiscal year 2004;

(C) $120,000,000 for fiscal year 2005; and

(D) $100,000,000 for fiscal year 2006.

SEC. 1253. ADVANCED SCIENTIFIC COMPUTING FOR ENERGY MISSIONS.

(a) ESTABLISHMENT.—The Secretary, acting through the Office of Science, shall support a program to advance the Nation's computing capability across a diverse set of grand challenge computationally based science problems related to departmental missions.

(b) DUTIES OF THE OFFICE OF SCIENCE.—In carrying out the program under this section, the Office of Science shall—

(1) advance basic science through computation by developing software to solve grand challenge science problems on new generations of computing platforms;

(2) enhance the foundations for scientific computing by developing the basic mathematical and computing systems software needed to take full advan-

tage of the computing capabilities of computers with peak speeds of 100 teraflops or more, some of which may be unique to the scientific problem of interest;

(3) enhance national collaboratory and networking capabilities by developing software to integrate geographically separated researchers into effective research teams and to facilitate access to and movement and analysis of large (petabyte) data sets; and

(4) maintain a robust scientific computing hardware infrastructure to ensure that the computing resources needed to address DOE missions are available; explore new computing approaches and technologies that promise to advance scientific computing.

(c) HIGH-PERFORMANCE COMPUTING ACT PROGRAM.—Section 203(a) of the High-Performance Computing Act of 1991 (15 U.S.C. 5523(a)) is amended—

(1) in paragraph (3), by striking "and";

(2) in paragraph (4), by striking the period and inserting "; and"; and

(3) by adding after paragraph (4) the following:

"(5) conduct an integrated program of research, development, and provision of facilities to develop and deploy to scientific and technical users the high-performance computing and collaboration tools needed

to fulfill the statutory missions of the Department of Energy in conducting basic and applied energy research.".

(d) COORDINATION WITH THE DOE NATIONAL NUCLEAR SECURITY AGENCY ACCELERATED STRATEGIC COMPUTING INITIATIVE AND OTHER NATIONAL COMPUTING PROGRAMS.—The Secretary shall ensure that this program, to the extent feasible, is integrated and consistent with—

(1) the Accelerated Strategic Computing Initiative of the National Nuclear Security Agency; and

(2) other national efforts related to advanced scientific computing for science and engineering.

(e) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1251(b), the following amounts are authorized for activities under this section—

(1) $285,000,000 for fiscal year 2003;

(2) $300,000,000 for fiscal year 2004;

(3) $310,000,000 for fiscal year 2005; and

(4) $320,000,000 for fiscal year 2006.

SEC. 1254. FUSION ENERGY SCIENCES PROGRAM AND PLANNING.

(a) OVERALL PLAN FOR FUSION ENERGY SCIENCES PROGRAM.—

(1) IN GENERAL.—Not later than 6 months after the date of enactment of this subtitle, the Secretary,

after consultation with the Fusion Energy Sciences Advisory Committee, shall develop and transmit to the Congress a plan to ensure a strong scientific base for the Fusion Energy Sciences Program within the Office of Science and to enable the experiments described in subsections (b) and (c).

(2) OBJECTIVES OF PLAN.—The plan under this subsection shall include as its objectives—

(A) to ensure that existing fusion research facilities and equipment are more fully utilized with appropriate measurements and control tools;

(B) to ensure a strengthened fusion science theory and computational base;

(C) to encourage and ensure that the selection of and funding for new magnetic and inertial fusion research facilities is based on scientific innovation and cost effectiveness;

(D) to improve the communication of scientific results and methods between the fusion science community and the wider scientific community;

(E) to ensure that adequate support is provided to optimize the design of the magnetic fu-

sion burning plasma experiments referred to in subsections (b) and (c); and

(F) to ensure that inertial confinement fusion facilities are utilized to the extent practicable for the purpose of inertial fusion energy research and development.

(b) PLAN FOR UNITED STATES FUSION EXPERIMENT.—

(1) IN GENERAL.—The Secretary, after consultation with the Fusion Energy Sciences Advisory Committee, shall develop a plan for construction in the United States of a magnetic fusion burning plasma experiment for the purpose of accelerating scientific understanding of fusion plasmas. The Secretary shall request a review of the plan by the National Academy of Sciences and shall transmit the plan and the review to the Congress by July 1, 2004.

(2) REQUIREMENTS OF PLAN.—The plan described in paragraph (1) shall—

(A) address key burning plasma physics issues; and

(B) include specific information on the scientific capabilities of the proposed experiment, the relevance of these capabilities to the goal of practical fusion energy, and the overall design of

the experiment including its estimated cost and potential construction sites.

(c) PLAN FOR PARTICIPATION IN AN INTERNATIONAL EXPERIMENT.—In addition to the plan described in subsection (b), the Secretary, after consultation with the Fusion Energy Sciences Advisory Committee, may also develop a plan for United States participation in an international burning plasma experiment for the same purpose, whose construction is found by the Secretary to be highly likely and where United States participation is cost-effective relative to the cost and scientific benefits of a domestic experiment described in subsection (b). If the Secretary elects to develop a plan under this subsection, he shall include the information described in subsection (b)(2), and an estimate of the cost of United States participation in such an international experiment. The Secretary shall request a review by the National Academy of Sciences of a plan developed under this subsection, and shall transmit the plan and the review to the Congress no later than July 1, 2004.

(d) AUTHORIZATION FOR RESEARCH AND DEVELOPMENT.—The Secretary, through the Office of Science, may conduct any research and development necessary to fully develop the plans described in this section.

(e) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1251, the following

amounts are authorized for activities under this section and for activities of the Fusion Energy Science Program—

(1) for fiscal year 2003, $335,000,000;

(2) for fiscal year 2004, $349,000,000;

(3) for fiscal year 2005, $362,000,000; and

(4) for fiscal year 2006, $377,000,000.

Subtitle F—Energy, Safety, and Environmental Protection

SEC. 1261. CRITICAL ENERGY INFRASTRUCTURE PROTECTION RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary shall carry out a research, development, demonstration and technology deployment program, in partnership with industry, on critical energy infrastructure protection, consistent with the roles and missions outlined for the Secretary in Presidential Decision Directive 63, entitled "Critical Infrastructure Protection". The program shall have the following goals:

(1) Increase the understanding of physical and information system disruptions to the energy infrastructure that could result in cascading or widespread regional outages.

(2) Develop energy infrastructure assurance "best practices" through vulnerability and risk assessments.

(3) Protect against, mitigate the effect of, and improve the ability to recover from disruptive incidents within the energy infrastructure.

(b) PROGRAM SCOPE.—The program under subsection (a) shall include research, development, deployment, technology demonstration for—

(1) analysis of energy infrastructure interdependencies to quantify the impacts of system vulnerabilities in relation to each other;

(2) probabilistic risk assessment of the energy infrastructure to account for unconventional and terrorist threats;

(3) incident tracking and trend analysis tools to assess the severity of threats and reported incidents to the energy infrastructure; and

(4) integrated multisensor, warning and mitigation technologies to detect, integrate, and localize events affecting the energy infrastructure including real time control to permit the reconfiguration of energy delivery systems.

(c) REGIONAL COORDINATION.—The program under this section shall cooperate with Departmental activities to promote regional coordination under section 102 of this Act, to ensure that the technologies and assessments developed

by the program are transferred in a timely manner to State and local authorities, and to the energy industries.

(d) COORDINATION WITH INDUSTRY RESEARCH ORGANIZATIONS.—The Secretary may enter into grants, contracts, and cooperative agreements with industry research organizations to facilitate industry participation in research under this section and to fulfill applicable cost-sharing requirements.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section—

(1) $25,000,000 for fiscal year 2003;

(2) $26,000,000 for fiscal year 2004;

(3) $27,000,000 for fiscal year 2005; and

(4) $28,000,000 for fiscal year 2006.

(f) CRITICAL ENERGY INFRASTRUCTURE FACILITY DEFINED.—For purposes of this section, the term "critical energy infrastructure facility" means a physical or cyber-based system or service for the generation, transmission or distribution of electrical energy, or the production, refining, transportation, or storage of petroleum, natural gas, or petroleum product, the incapacity or destruction of which would have a debilitating impact on the defense or economic security of the United States. The term shall not include a facility that is licensed by the Nuclear Regulatory Com-

mission under section 103 or 104b of the Atomic Energy Act of 1954 (42 U.S.C. 2133 and 2134(b)).

SEC. 1262. RESEARCH AND DEMONSTRATION FOR REMEDIATION OF GROUNDWATER FROM ENERGY ACTIVITIES.

(a) IN GENERAL.—The Secretary shall carry out a research, development, demonstration, and technology deployment program to improve methods for environmental restoration of groundwater contaminated by energy activities, including oil and gas production, surface and underground mining of coal, and in-situ extraction of energy resources.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $10,000,000 for each of fiscal years 2003 through 2006.

TITLE XIII—CLIMATE CHANGE SCIENCE AND TECHNOLOGY

Subtitle A—Department of Energy Programs

SEC. 1301. DEPARTMENT OF ENERGY GLOBAL CHANGE RESEARCH.

(a) PROGRAM DIRECTION.—The Secretary, acting through the Office of Science, shall conduct a comprehensive research program to understand and address the effects of energy production and use on the global climate system.

(b) PROGRAM ELEMENTS.—

(1) CLIMATE MODELING.—The Secretary shall—

(A) conduct observational and analytical research to acquire and interpret the data needed to describe the radiation balance from the surface of the Earth to the top of the atmosphere;

(B) determine the factors responsible for the Earth's radiation balance and incorporate improved understanding of such factors in climate models;

(C) improve the treatment of aerosols and clouds in climate models;

(D) reduce the uncertainty in decade-to-century model-based projections of climate change; and

(E) increase the availability and utility of climate change simulations to researchers and policy makers interested in assessing the relationship between energy and climate change.

(2) CARBON CYCLE.—The Secretary shall—

(A) carry out field research and modeling activities—

(i) to understand and document the net exchange of carbon dioxide between major

terrestrial ecosystems and the atmosphere; or

(ii) to evaluate the potential of proposed methods of carbon sequestration;

(B) develop and test carbon cycle models; and

(C) acquire data and develop and test models to simulate and predict the transport, transformation, and fate of energy-related emissions in the atmosphere.

(3) ECOLOGICAL PROCESSES.—The Secretary shall carry out long-term experiments of the response of intact terrestrial ecosystems to—

(A) alterations in climate and atmospheric composition; or

(B) land-use changes that affect ecosystem extent and function.

(4) INTEGRATED ASSESSMENT.—The Secretary shall develop and improve methods and tools for integrated analyses of the climate change system from emissions of aerosols and greenhouse gases to the consequences of these emissions on climate and the resulting effects of human-induced climate change on economic and social systems, with emphasis on critical gaps in integrated assessment modeling, including

modeling of technology innovation and diffusion and the development of metrics of economic costs of climate change and policies for mitigating or adapting to climate change.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1251(b), there are authorized to be appropriated to the Secretary for carrying out activities under this section—

(1) $150,000,000 for fiscal year 2003;

(2) $175,000,000 for fiscal year 2004;

(3) $200,000,000 for fiscal year 2005; and

(4) $230,000,000 for fiscal year 2006.

(d) LIMITATION ON FUNDS.—Funds authorized to be appropriated under this section shall not be used for the development, demonstration, or deployment of technology to reduce, avoid, or sequester greenhouse gas emissions.

SEC. 1302. AMENDMENTS TO THE FEDERAL NONNUCLEAR RESEARCH AND DEVELOPMENT ACT OF 1974.

Section 6 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5905) is amended—

(1) in subsection (a)—

(A) in paragraph (2), by striking "and" at the end;

(B) in paragraph (3) by striking the period at the end and inserting ", and"; and

(C) by adding at the end the following:

"(4) solutions to the effective management of greenhouse gas emissions in the long term by the development of technologies and practices designed to—

"(A) reduce or avoid anthropogenic emissions of greenhouse gases;

"(B) remove and sequester greenhouse gases from emissions streams; and

"(C) remove and sequester greenhouse gases from the atmosphere."; and

(2) in subsection (b)—

(A) in paragraph (2), by striking "subsection (a)(1) through (3)" and inserting "paragraphs (1) through (4) of subsection (a)"; and

(B) in paragraph (3)—

(i) in subparagraph (R), by striking "and" at the end;

(ii) in subparagraph (S), by striking the period at the end and inserting "; and"; and

(iii) by adding at the end the following:

"(T) to pursue a long-term climate technology strategy designed to demonstrate a variety of technologies by which stabilization of greenhouse gases might be best achieved, including accelerated research, development, demonstration and deployment of—

"(i) renewable energy systems;

"(ii) advanced fossil energy technology;

"(iii) advanced nuclear power plant design;

"(iv) fuel cell technology for residential, industrial and transportation applications;

"(v) carbon sequestration practices and technologies, including agricultural and forestry practices that store and sequester carbon;

"(vi) efficient electrical generation, transmission and distribution technologies; and

"(vii) efficient end use energy technologies.".

Subtitle B—Department of Agriculture Programs

SEC. 1311. CARBON SEQUESTRATION BASIC AND APPLIED RESEARCH.

(a) BASIC RESEARCH.—

(1) IN GENERAL.—The Secretary of Agriculture shall carry out research in the areas of soil science that promote understanding of—

(A) the net sequestration of organic carbon in soil; and

(B) net emissions of other greenhouse gases from agriculture.

(2) AGRICULTURAL RESEARCH SERVICE.—The Secretary of Agriculture, acting through the Agricultural Research Service, shall collaborate with other Federal agencies in developing data and carrying out research addressing soil carbon fluxes (losses and gains) and net emissions of methane and nitrous oxide from cultivation and animal management activities.

(3) COOPERATIVE STATE RESEARCH, EXTENSION, AND EDUCATION SERVICE.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Cooperative State Research, Extension, and Education Service, shall

establish a competitive grant program to carry out research on the matters described in paragraph (1) in land grant universities and other research institutions.

(B) CONSULTATION ON RESEARCH TOPICS.—Before issuing a request for proposals for basic research under paragraph (1), the Cooperative State Research, Extension, and Education Service shall consult with the Agricultural Research Service to ensure that proposed research areas are complementary with and do not duplicate research projects underway at the Agricultural Research Service or other Federal agencies.

(b) APPLIED RESEARCH.—

(1) IN GENERAL.—The Secretary of Agriculture shall carry out applied research in the areas of soil science, agronomy, agricultural economics and other agricultural sciences to—

(A) promote understanding of—

(i) how agricultural and forestry practices affect the sequestration of organic and inorganic carbon in soil and net emissions of other greenhouse gases;

(ii) how changes in soil carbon pools are cost-effectively measured, monitored, and verified; and

(iii) how public programs and private market approaches can be devised to incorporate carbon sequestration in a broader societal greenhouse gas emission reduction effort;

(B) develop methods for establishing baselines for measuring the quantities of carbon and other greenhouse gases sequestered; and

(C) evaluate leakage and performance issues.

(2) REQUIREMENTS.—To the maximum extent practicable, applied research under paragraph (1) shall—

(A) draw on existing technologies and methods; and

(B) strive to provide methodologies that are accessible to a nontechnical audience.

(3) MINIMIZATION OF ADVERSE ENVIRONMENTAL IMPACTS.—All applied research under paragraph (1) shall be conducted with an emphasis on minimizing adverse environmental impacts.

(4) NATURAL RESOURCES CONSERVATION SERVICE.—The Secretary of Agriculture, acting through the Natural Resources Conservation Service, shall collaborate with other Federal agencies, including the National Institute of Standards and Technology, in developing new measuring techniques and equipment or adapting existing techniques and equipment to enable cost-effective and accurate monitoring and verification, for a wide range of agricultural and forestry practices, of—

(A) changes in soil carbon content in agricultural soils, plants, and trees; and

(B) net emissions of other greenhouse gases.

(5) COOPERATIVE STATE RESEARCH, EXTENSION, AND EDUCATION SERVICE.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Cooperative State Research, Extension, and Education Service, shall establish a competitive grant program to encourage research on the matters described in paragraph (1) by land grant universities and other research institutions.

(B) CONSULTATION ON RESEARCH TOPICS.—Before issuing a request for proposals for applied research under paragraph (1), the Coop-

erative State Research, Extension, and Education Service shall consult with the National Resources Conservation Service and the Agricultural Research Service to ensure that proposed research areas are complementary with and do not duplicate research projects underway at the Agricultural Research Service or other Federal agencies.

(c) RESEARCH CONSORTIA.—

(1) IN GENERAL.—The Secretary of Agriculture may designate not more than two research consortia to carry out research projects under this section, with the requirement that the consortia propose to conduct basic research under subsection (a) and applied research under subsection (b).

(2) SELECTION.—The consortia shall be selected in a competitive manner by the Cooperative State Research, Extension, and Education Service.

(3) ELIGIBLE CONSORTIUM PARTICIPANTS.—Entities eligible to participate in a consortium include—

(A) land grant colleges and universities;

(B) private research institutions;

(C) State geological surveys;

(D) agencies of the Department of Agriculture;

(E) research centers of the National Aeronautics and Space Administration and the Department of Energy;

(F) other Federal agencies;

(G) representatives of agricultural businesses and organizations with demonstrated expertise in these areas; and

(H) representatives of the private sector with demonstrated expertise in these areas.

(4) RESERVATION OF FUNDING.—If the Secretary of Agriculture designates one or two consortia, the Secretary of Agriculture shall reserve for research projects carried out by the consortium or consortia not more than 25 percent of the amounts made available to carry out this section for a fiscal year.

(d) STANDARDS OF PRECISION.—

(1) CONFERENCE.—Not later than 3 years after the date of enactment of this subtitle, the Secretary of Agriculture, acting through the Agricultural Research Service and in consultation with the Natural Resources Conservation Service, shall convene a conference of key scientific experts on carbon sequestration and measurement techniques from various sectors

(including the Government, academic, and private sectors) to—

(A) discuss benchmark standards of precision for measuring soil carbon content and net emissions of other greenhouse gases;

(B) designate packages of measurement techniques and modeling approaches to achieve a level of precision agreed on by the participants in the conference; and

(C) evaluate results of analyses on baseline, permanence, and leakage issues.

(2) DEVELOPMENT OF BENCHMARK STANDARDS.—

(A) IN GENERAL.—The Secretary shall develop benchmark standards for measuring the carbon content of soils and plants (including trees) based on—

(i) information from the conference under paragraph (1);

(ii) research conducted under this section; and

(iii) other information available to the Secretary.

(B) OPPORTUNITY FOR PUBLIC COMMENT.—The Secretary shall provide an opportunity for

the public to comment on benchmark standards developed under subparagraph (A).

(3) REPORT.—Not later than 180 days after the conclusion of the conference under paragraph (1), the Secretary of Agriculture shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report on the results of the conference.

(e) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this section $25,000,000 for each of fiscal years 2003 through 2006.

(2) ALLOCATION.—Of the amounts made available to carry out this section for a fiscal year, at least 50 percent shall be allocated for competitive grants by the Cooperative State Research, Extension, and Education Service.

SEC. 1312. CARBON SEQUESTRATION DEMONSTRATION PROJECTS AND OUTREACH.

(a) DEMONSTRATION PROJECTS.—

(1) DEVELOPMENT OF MONITORING PROGRAMS.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Natural Resources

Conservation Service and in cooperation with local extension agents, experts from land grant universities, and other local agricultural or conservation organizations, shall develop user-friendly programs that combine measurement tools and modeling techniques into integrated packages to monitor the carbon sequestering benefits of conservation practices and net changes in greenhouse gas emissions.

(B) BENCHMARK LEVELS OF PRECISION.—The programs developed under subparagraph (A) shall strive to achieve benchmark levels of precision in measurement in a cost-effective manner.

(2) PROJECTS.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Farm Service Agency, shall establish a program under which projects use the monitoring programs developed under paragraph (1) to demonstrate the feasibility of methods of measuring, verifying, and monitoring—

(i) changes in organic carbon content and other carbon pools in agricultural soils, plants, and trees; and

(ii) net changes in emissions of other greenhouse gases.

(B) EVALUATION OF IMPLICATIONS.—The projects under subparagraph (A) shall include evaluation of the implications for reassessed baselines, carbon or other greenhouse gas leakage, and permanence of sequestration.

(C) SUBMISSION OF PROPOSALS.—Proposals for projects under subparagraph (A) shall be submitted by the appropriate agency of each State, in cooperation with interested local jurisdictions and State agricultural and conservation organizations.

(D) LIMITATION.—Not more than 10 projects under subparagraph (A) may be approved in conjunction with applied research projects under section 1311(b) until benchmark measurement and assessment standards are established under section 1311(d).

(E) NATIONAL FOREST SYSTEM LAND.—The Secretary of Agriculture shall consider the use of National Forest System land as sites to demonstrate the feasibility of monitoring programs developed under paragraph (1).

(b) OUTREACH.—

(1) IN GENERAL.—The Cooperative State Research, Extension, and Education Service shall widely disseminate information about the economic and environmental benefits that can be generated by adoption of conservation practices (including benefits from increased sequestration of carbon and reduced emission of other greenhouse gases).

(2) PROJECT RESULTS.—The Cooperative State Research, Extension, and Education Service shall inform farmers, ranchers, and State agricultural and energy offices in each State of—

(A) the results of demonstration projects under subsection (a)(2) in the State; and

(B) the ways in which the methods demonstrated in the projects might be applicable to the operations of those farmers and ranchers.

(3) POLICY OUTREACH.—On a periodic basis, the Cooperative State Research, Extension, and Education Service shall disseminate information on the policy nexus between global climate change mitigation strategies and agriculture, so that farmers and ranchers may better understand the global implications of the activities of farmers and ranchers.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this section $10,000,000 for each of fiscal years 2003 through 2006.

(2) ALLOCATION.—Of the amounts made available to carry out this section for a fiscal year, at least 50 percent shall be allocated for demonstration projects under subsection (a)(2).

SEC. 1313. CARBON STORAGE AND SEQUESTRATION ACCOUNTING RESEARCH.

(a) IN GENERAL.—The Secretary of Agriculture, in collaboration with the heads of other Federal agencies, shall conduct research on, develop, and publish as appropriate, carbon storage and sequestration accounting models, reference tables, or other tools that can assist landowners and others in cost-effective and reliable quantification of the carbon release, sequestration, and storage expected to result from various resource uses, land uses, practices, activities or forest, agricultural, or cropland management practices over various periods of time.

(b) PILOT PROGRAMS.—The Secretary of Agriculture shall make competitive grants to not more than five eligible entities to carry out pilot programs to demonstrate and assess the potential for development and use of carbon inventories and accounting systems that can assist in developing and assessing carbon storage and sequestration policies and

programs. Not later than 1 year after the date of enactment of this section, the Secretary of Agriculture, in collaboration with the heads of other Federal agencies and with other interested parties, shall develop guidelines for such pilot programs, including eligibility for awards, application contents, reporting requirements, and mechanisms for peer review.

(c) REPORT.—Not later than 5 years after the date of enactment of this section, the Secretary of Agriculture, in collaboration with the heads of other Federal agencies, shall submit to Congress a report on the technical, institutional, infrastructure, design and funding needs to establish and maintain a national carbon storage and sequestration baseline and accounting system. The report shall include documentation of the results of each of the pilot programs.

(d) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this section, there are authorized to be appropriated to the Secretary of Agriculture $20,000,000 for fiscal years 2003 through 2007.

Subtitle C—International Energy Technology Transfer

SEC. 1321. CLEAN ENERGY TECHNOLOGY EXPORTS PROGRAM.

(a) DEFINITIONS.—In this section:

(1) CLEAN ENERGY TECHNOLOGY.—The term "clean energy technology" means an energy supply or end-use technology that, over its lifecycle and compared to a similar technology already in commercial use in developing countries, countries in transition, and other partner countries—

(A) emits substantially lower levels of pollutants or greenhouse gases; and

(B) may generate substantially smaller or less toxic volumes of solid or liquid waste.

(2) INTERAGENCY WORKING GROUP.—The term "interagency working group" means the Interagency Working Group on Clean Energy Technology Exports established under subsection (b).

(b) INTERAGENCY WORKING GROUP.—

(1) ESTABLISHMENT.—Not later than 90 days after the date of enactment of this section, the Secretary of Energy, the Secretary of Commerce, and the Administrator of the United States Agency for International Development shall jointly establish a Interagency Working Group on Clean Energy Technology Exports. The interagency working group will focus on opening and expanding energy markets and transferring clean energy technology to the developing countries, countries in transition, and other partner coun-

tries that are expected to experience, over the next 20 years, the most significant growth in energy production and associated greenhouse gas emissions, including through technology transfer programs under the Framework Convention on Climate Change, other international agreements, and relevant Federal efforts.

(2) MEMBERSHIP.—The interagency working group shall be jointly chaired by representatives appointed by the agency heads under paragraph (1) and shall also include representatives from the Department of State, the Department of the Treasury, the Environmental Protection Agency, the Export-Import Bank, the Overseas Private Investment Corporation, the Trade and Development Agency, and other Federal agencies as deemed appropriate by all three agency heads under paragraph (1).

(3) DUTIES.—The interagency working group shall—

(A) analyze technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology;

(B) investigate issues associated with building capacity to deploy clean energy technology

in developing countries, countries in transition, and other partner countries, including—

(i) energy-sector reform;

(ii) creation of open, transparent, and competitive markets for energy technologies;

(iii) availability of trained personnel to deploy and maintain the technology; and

(iv) demonstration and cost-buydown mechanisms to promote first adoption of the technology;

(C) examine relevant trade, tax, international, and other policy issues to assess what policies would help open markets and improve United States clean energy technology exports in support of the following areas—

(i) enhancing energy innovation and cooperation, including energy sector and market reform, capacity building, and financing measures;

(ii) improving energy end-use efficiency technologies, including buildings and facilities, vehicle, industrial, and co-generation technology initiatives; and

(iii) promoting energy supply technologies, including fossil, nuclear, and renewable technology initiatives;

(D) establish an advisory committee involving the private sector and other interested groups on the export and deployment of clean energy technology;

(E) monitor each agency's progress towards meeting goals in the 5-year strategic plan submitted to Congress pursuant to the Energy and Water Development Appropriations Act, 2001, and the Energy and Water Development Appropriations Act, 2002;

(F) make recommendations to heads of appropriate Federal agencies on ways to streamline Federal programs and policies to improve each agency's role in the international development, demonstration, and deployment of clean energy technology;

(G) make assessments and recommendations regarding the distinct technological, market, regional, and stakeholder challenges necessary to carry out the program; and

(H) recommend conditions and criteria that will help ensure that United States funds pro-

mote sound energy policies in participating countries while simultaneously opening their markets and exporting United States energy technology.

(c) FEDERAL SUPPORT FOR CLEAN ENERGY TECHNOLOGY TRANSFER.—Notwithstanding any other provision of law, each Federal agency or Government corporation carrying out an assistance program in support of the activities of United States persons in the environment or energy sector of a developing country, country in transition, or other partner country shall support, to the maximum extent practicable, the transfer of United States clean energy technology as part of that program.

(d) ANNUAL REPORT.—Not later than 90 days after the date of the enactment of this Act, and on April 1st of each year thereafter, the Interagency Working Group shall submit a report to Congress on its activities during the preceding calendar year. The report shall include a description of the technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology investigated by the Interagency Working Group in that year, as well as any policy recommendations to improve the expansion of clean energy markets and United States clean energy technology exports.

(e) REPORT ON USE OF FUNDS.—Not later than October 1, 2002, and each year thereafter, the Secretary of State, in consultation with other Federal agencies, shall submit a report to Congress indicating how United States funds appropriated for clean energy technology exports and other relevant Federal programs are being directed in a manner that promotes sound energy policy commitments in developing countries, countries in transition, and other partner countries, including efforts pursuant to multilateral environmental agreements.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the departments, agencies, and entities of the United States described in subsection (b) such sums as may be necessary to support the transfer of clean energy technology, consistent with the subsidy codes of the World Trade Organization, as part of assistance programs carried out by those departments, agencies, and entities in support of activities of United States persons in the energy sector of a developing country, country in transition, or other partner country.

SEC. 1322. INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.

Section 1608 of the Energy Policy Act of 1992 (42 U.S.C. 13387) is amended by striking subsection (l) and inserting the following:

"(l) INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.—

"(1) DEFINITIONS.—In this subsection:

"(A) INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term 'international energy deployment project' means a project to construct an energy production facility outside the United States—

"(i) the output of which will be consumed outside the United States; and

"(ii) the deployment of which will result in a greenhouse gas reduction per unit of energy produced when compared to the technology that would otherwise be implemented—

"(I) 10 percentage points or more, in the case of a unit placed in service before January 1, 2010;

"(II) 20 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

"(III) 30 percentage points or more, in the case of a unit placed in

service after December 31, 2019, and before January 1, 2030.

"(B) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term 'qualifying international energy deployment project' means an international energy deployment project that—

"(i) is submitted by a United States firm to the Secretary in accordance with procedures established by the Secretary by regulation;

"(ii) uses technology that has been successfully developed or deployed in the United States;

"(iii) meets the criteria of subsection (k);

"(iv) is approved by the Secretary, with notice of the approval being published in the Federal Register; and

"(v) complies with such terms and conditions as the Secretary establishes by regulation.

"(C) UNITED STATES.—For purposes of this paragraph, the term 'United States', when used in a geographical sense, means the 50 States, the

District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

"(2) PILOT PROGRAM FOR FINANCIAL ASSISTANCE.—

"(A) IN GENERAL.—Not later than 180 days after the date of enactment of this subsection, the Secretary shall, by regulation, provide for a pilot program for financial assistance for qualifying international energy deployment projects.

"(B) SELECTION CRITERIA.—After consultation with the Secretary of State, the Secretary of Commerce, and the United States Trade Representative, the Secretary shall select projects for participation in the program based solely on the criteria under this title and without regard to the country in which the project is located.

"(C) FINANCIAL ASSISTANCE.—

"(i) IN GENERAL.—A United States firm that undertakes a qualifying international energy deployment project that is selected to participate in the pilot program shall be eligible to receive a loan or a loan guarantee from the Secretary.

"(ii) RATE OF INTEREST.—The rate of interest of any loan made under clause (i) shall be equal to the rate for Treasury obligations then issued for periods of comparable maturities.

"(iii) AMOUNT.—The amount of a loan or loan guarantee under clause (i) shall not exceed 50 percent of the total cost of the qualified international energy deployment project.

"(iv) DEVELOPED COUNTRIES.—Loans or loan guarantees made for projects to be located in a developed country, as listed in Annex I of the United Nations Framework Convention on Climate Change, shall require at least a 50 percent contribution towards the total cost of the loan or loan guarantee by the host country.

"(v) DEVELOPING COUNTRIES.—Loans or loan guarantees made for projects to be located in a developing country (those countries not listed in Annex I of the United Nations Framework Convention on Climate Change) shall require at least a 10 percent

contribution towards the total cost of the loan or loan guarantee by the host country.

"(vi) CAPACITY BUILDING RESEARCH.—Proposals made for projects to be located in a developing country may include a research component intended to build technological capacity within the host country. Such research must be related to the technologies being deployed and must involve both an institution in the host country and an industry, university or national laboratory participant from the United States. The host institution shall contribute at least 50 percent of funds provided for the capacity building research.

"(D) COORDINATION WITH OTHER PROGRAMS.—A qualifying international energy deployment project funded under this section shall not be eligible as a qualifying clean coal technology under section 415 of the Clean Air Act (42 U.S.C. 7651n).

"(E) REPORT.—Not later than 5 years after the date of enactment of this subsection, the Secretary shall submit to the President a report on the results of the pilot projects.

"(F) RECOMMENDATION.—Not later than 60 days after receiving the report under subparagraph (E), the President shall submit to Congress a recommendation, based on the results of the pilot projects as reported by the Secretary of Energy, concerning whether the financial assistance program under this section should be continued, expanded, reduced, or eliminated.

"(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $100,000,000 for each of fiscal years 2003 through 2011, to remain available until expended.".

Subtitle D—Climate Change Science and Information

PART I—AMENDMENTS TO THE GLOBAL CHANGE RESEARCH ACT OF 1990

SEC. 1331. AMENDMENT OF GLOBAL CHANGE RESEARCH ACT OF 1990.

Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.).

SEC. 1332. CHANGES IN DEFINITIONS.

Paragraph (1) of section 2 (15 U.S.C. 2921) is amended by striking "Earth and Environmental Sciences" inserting "Global Change Research".

SEC. 1333. CHANGE IN COMMITTEE NAME AND STRUCTURE.

Section 102 (15 U.S.C. 2932) is amended—

*(1) by striking "**EARTH AND ENVIRONMENTAL SCIENCES**" in the section heading and inserting "**GLOBAL CHANGE RESEARCH**";*

(2) by striking "Earth and Environmental Sciences" in subsection (a) and inserting "Global Change Research";

(3) by striking the last sentence of subsection (b) and inserting "The representatives shall be the Deputy Secretary or the Deputy Secretary's designee (or, in the case of an agency other than a department, the deputy head of that agency or the deputy's designee).";

(4) by striking "Chairman of the Council," in subsection (c) and inserting "Director of the Office of National Climate Change Policy with advice from the Chairman of the Council, and";

(5) by redesignating subsections (d) and (e) as subsections (e) and (f), respectively; and

(6) by inserting after subsection (c) the following:

"(d) SUBCOMMITTEES AND WORKING GROUPS.—

"(1) IN GENERAL.—There shall be a Subcommittee on Global Change Research, which shall carry out such functions of the Committee as the Committee may assign to it.

"(2) MEMBERSHIP.—The membership of the Subcommittee shall consist of—

"(A) the membership of the Subcommittee on Global Change Research of the Committee on Environment and Natural Resources (the functions of which are transferred to the Subcommittee established by this subsection) established by the National Science and Technology Council; and

"(B) such additional members as the Chair of the Committee may, from time to time, appoint.

"(3) CHAIR.—A high ranking official of one of the departments or agencies described in subsection (b), appointed by the Chair of the Committee with advice from the Chairman of the Council, shall chair the subcommittee. The Chairperson shall be knowledgeable and experienced with regard to the administration of scientific research programs, and shall be a representative of an agency that contributes substantially, in

terms of scientific research capability and budget, to the Program.

"(4) OTHER SUBCOMMITTEES AND WORKING GROUPS.—The Committee may establish such additional subcommittees and working groups as it sees fit.".

SEC. 1334. CHANGE IN NATIONAL GLOBAL CHANGE RESEARCH PLAN.

Section 104 (15 U.S.C. 2934) is amended—

(1) by inserting "short-term and long-term" before "goals" in subsection (b)(1);

(2) by striking "usable information on which to base policy decisions related to" in subsection (b)(1) and inserting "information relevant and readily usable by local, State, and Federal decisionmakers, as well as other end-users, for the formulation of effective decisions and strategies for measuring, predicting, preventing, mitigating, and adapting to";

(3) by adding at the end of subsection (c) the following:

"(6) Methods for integrating information to provide predictive and other tools for planning and decisionmaking by governments, communities and the private sector.";

(4) by striking subsection (d)(3) and inserting the following:

"(3) combine and interpret data from various sources to produce information readily usable by local, State, and Federal policymakers, and other end-users, attempting to formulate effective decisions and strategies for preventing, mitigating, and adapting to the effects of global change.";

(5) by striking "and" in subsection (d)(2);

(6) by striking "change." in subsection (d)(3) and inserting "change; and";

(7) by adding at the end of subsection (d) the following:

"(4) establish a common assessment and modeling framework that may be used in both research and operations to predict and assess the vulnerability of natural and managed ecosystems and of human society in the context of other environmental and social changes."; and

(8) by adding at the end the following:

"(g) STRATEGIC PLAN; REVISED IMPLEMENTATION PLAN.—The Chairman of the Council, through the Committee, shall develop a strategic plan for the United States Global Climate Change Research Program for the 10-year period beginning in 2002 and submit the plan to the Con-

gress within 180 days after the date of enactment of the Global Climate Change Act of 2002. The Chairman, through the Committee, shall also submit revised implementation plans as required under subsection (a).".

SEC. 1335. INTEGRATED PROGRAM OFFICE.

Section 105 (15 U.S.C. 2935) is amended—

(1) by redesignating subsections (a), (b), and (c) as subsections (b), (c), and (d), respectively; and

(2) by inserting before subsection (b), as redesignated, the following:

"(a) INTEGRATED PROGRAM OFFICE.—

"(1) ESTABLISHMENT.—There is established in the Office of Science and Technology Policy an integrated program office for the global change research program.

"(2) ORGANIZATION.—The integrated program office established under paragraph (1) shall be headed by the associate director with responsibility for climate change science and technology and shall include, to the maximum extent feasible, a representative from each Federal agency participating in the global change research program.

"(3) FUNCTION.—The integrated program office shall—

"(A) manage, working in conjunction with the Committee, interagency coordination and program integration of global change research activities and budget requests;

"(B) ensure that the activities and programs of each Federal agency or department participating in the program address the goals and objectives identified in the strategic research plan and interagency implementation plans;

"(C) ensure program and budget recommendations of the Committee are communicated to the President and are integrated into the climate change action strategy;

"(D) review, solicit, and identify, and allocate funds for, partnership projects that address critical research objectives or operational goals of the program, including projects that would fill research gaps identified by the program, and for which project resources are shared among at least two agencies participating in the program; and

"(E) review and provide recommendations on, in conjunction with the Committee, all annual appropriations requests from Federal agen-

cies or departments participating in the program.";

(3) by striking "Committee." in paragraph (2) of subsection (c), as redesignated, and inserting "Committee and the Integrated Program Office."; and

(4) by inserting "and the Integrated Program Office" after "Committee" in paragraph (1) of subsection (d), as redesignated.

SEC. 1336. RESEARCH GRANTS.

Section 105 (15 U.S.C. 2935) is amended—

(1) by redesignating subsection (c) as subsection (d); and

(2) by inserting after subsection (b) the following:

"(c) RESEARCH GRANTS.—

"(1) COMMITTEE TO DEVELOP LIST OF PRIORITY RESEARCH AREAS.—The Committee shall develop a list of priority areas for research and development on climate change that are not being addressed by Federal agencies.

"(2) DIRECTOR OF OSTP TO TRANSMIT LIST TO NSF.—The Director of the Office of Science and Technology Policy shall transmit the list to the National Science Foundation.

"(3) FUNDING THROUGH NSF.—

"(A) BUDGET REQUEST.—The National Science Foundation shall include, as part of the annual request for appropriations for the Science and Technology Policy Institute, a request for appropriations to fund research in the priority areas on the list developed under paragraph (1).

"(B) AUTHORIZATION.—For fiscal year 2003 and each fiscal year thereafter, there are authorized to be appropriated to the National Science Foundation not less than $17,000,000, to be made available through the Science and Technology Policy Institute, for research in those priority areas.".

SEC. 1337. EVALUATION OF INFORMATION.

Section 106 (15 U.S.C. 2936) is amended—

*(1) by striking "**Scientific**" in the section heading;*

(2) by striking "and" after the semicolon in paragraph (2); and

(3) by striking "years." in paragraph (3) and inserting "years; and"; and

(4) by adding at the end the following:

"(4) evaluates the information being developed under this title, considering in particular its usefulness to local, State, and national decisionmakers, as

well as to other stakeholders such as the private sector, after providing a meaningful opportunity for the consideration of the views of such stakeholders on the effectiveness of the Program and the usefulness of the information.''.

PART II—NATIONAL CLIMATE SERVICES AND MONITORING

SEC. 1341. AMENDMENT OF NATIONAL CLIMATE PROGRAM ACT.

Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the National Climate Program Act (15 U.S.C. 2901 et seq.).

SEC. 1342. CHANGES IN FINDINGS.

Section 2 (15 U.S.C. 2901) is amended—

(1) by striking ''Weather and climate change affect'' in paragraph (1) and inserting ''Weather, climate change, and climate variability affect public safety, environmental security, human health,'';

(2) by striking ''climate'' in paragraph (2) and inserting ''climate, including seasonal and decadal fluctuations,'';

(3) by striking "changes." in paragraph (5) and inserting "changes and providing free exchange of meteorological data."; and

(4) by adding at the end the following:

"(7) The present rate of advance in research and development and application of such advances is inadequate and new developments must be incorporated rapidly into services for the benefit of the public.

"(8) The United States lacks adequate infrastructure and research to meet national climate monitoring and prediction needs.".

SEC. 1343. TOOLS FOR REGIONAL PLANNING.

Section 5(d) (15 U.S.C. 2904(d)) is amended—

(1) by redesignating paragraphs (4) through (9) as paragraphs (5) through (10), respectively;

(2) by inserting after paragraph (3) the following:

"(4) methods for improving modeling and predictive capabilities and developing assessment methods to guide national, regional, and local planning and decisionmaking on land use, water hazards, and related issues;";

(3) by inserting "sharing," after "collection," in paragraph (5), as redesignated;

(4) by striking "experimental" each place it appears in paragraph (9), as redesignated;

(5) by striking "preliminary" in paragraph (10), as redesignated;

(6) by striking "this Act," the first place it appears in paragraph (10), as redesignated, and inserting "the Global Climate Change Act of 2002,"; and

(7) by striking "this Act," the second place it appears in paragraph (10), as redesignated, and inserting "that Act,".

SEC. 1344. AUTHORIZATION OF APPROPRIATIONS.

Section 9 (15 U.S.C. 2908) is amended—

(1) by striking "1979," and inserting "2002,";

(2) by striking "1980," and inserting "2003,";

(3) by striking "1981," and inserting "2004,"; and

(4) by striking "$25,500,000" and inserting "$75,500,000".

SEC. 1345. NATIONAL CLIMATE SERVICE PLAN.

The Act (15 U.S.C. 2901 et seq.) is amended by inserting after section 5 the following:

"SEC. 6. NATIONAL CLIMATE SERVICE PLAN.

"Within 1 year after the date of enactment of the Global Climate Change Act of 2002, the Secretary of Commerce shall submit to the Senate Committee on Commerce,

Science, and Transportation and the House Science Committee a plan of action for a National Climate Service under the National Climate Program. The plan shall set forth recommendations and funding estimates for—

"(1) a national center for operational climate monitoring and predicting with the functional capacity to monitor and adjust observing systems as necessary to reduce bias;

"(2) the design, deployment, and operation of an adequate national climate observing system that builds upon existing environmental monitoring systems and closes gaps in coverage by existing systems;

"(3) the establishment of a national coordinated modeling strategy, including a national climate modeling center to provide a dedicated capability for climate modeling and a regular schedule of projections on a long- and short-term time schedule and at a range of spatial scales;

"(4) improvements in modeling and assessment capabilities needed to integrate information to predict regional and local climate changes and impacts;

"(5) in coordination with the private sector, improving the capacity to assess the impacts of predicted and projected climate changes and variations;

"(6) a program for long-term stewardship, quality control, development of relevant climate products, and efficient access to all relevant climate data, products, and critical model simulations; and

"(7) mechanisms to coordinate among Federal agencies, State, and local government entities and the academic community to ensure timely and full sharing and dissemination of climate information and services, both domestically and internationally.".

SEC. 1346. INTERNATIONAL PACIFIC RESEARCH AND COOPERATION.

The Secretary of Commerce, in cooperation with the Administrator of the National Aeronautics and Space Administration, shall conduct international research in the Pacific region that will increase understanding of the nature and predictability of climate variability in the Asia-Pacific sector, including regional aspects of global environmental change. Such research activities shall be conducted in cooperation with other nations of the region. There are authorized to be appropriated for purposes of this section $1,500,000 to the National Oceanic and Atmospheric Administration, $1,500,000 to the National Aeronautics and Space Administration, and $500,000 for the Pacific ENSO Applications Center.

SEC. 1347. REPORTING ON TRENDS.

(a) ATMOSPHERIC MONITORING AND VERIFICATION PROGRAM.—The Secretary of Commerce, in coordination with relevant Federal agencies, shall, as part of the National Climate Service, establish an atmospheric monitoring and verification program utilizing aircraft, satellite, ground sensors, and modeling capabilities to monitor, measure, and verify atmospheric greenhouse gas levels, dates, and emissions. Where feasible, the program shall measure emissions from identified sources participating in the reporting system for verification purposes. The program shall use measurements and standards that are consistent with those utilized in the greenhouse gas measurement and reporting system established under subsection (a) and the registry established under section 1102.

(b) ANNUAL REPORTING.—The Secretary of Commerce shall issue an annual report that identifies greenhouse emissions and trends on a local, regional, and national level. The report shall also identify emissions or reductions attributable to individual or multiple sources covered by the greenhouse gas measurement and reporting system established under section 1102.

SEC. 1348. ARCTIC RESEARCH AND POLICY.

(a) ARCTIC RESEARCH COMMISSION.—Section 103(d) of the Arctic Research and Policy Act of 1984 (15 U.S.C. 4102(d)) is amended—

(1) by striking "exceed 90 days" in the second sentence of paragraph (1) and inserting "exceed, in the case of the chairperson of the Commission, 120 days, and, in the case of any other member of the Commission, 90 days,";

(2) by striking "Chairman" in paragraph (2) and inserting "chairperson".

(b) GRANTS.—Section 104 of the Arctic Research and Policy Act of 1984 (15 U.S.C. 4103) is amended by adding at the end the following:

"(c) FUNDING FOR ARCTIC RESEARCH.—

"(1) IN GENERAL.—With the prior approval of the commission, or under authority delegated by the Commission, and subject to such conditions as the Commission may specify, the Executive Director appointed under section 106(a) may—

"(A) make grants to persons to conduct research concerning the Arctic; and

"(B) make funds available to the National Science Foundation or to Federal agencies for the conduct of research concerning the Arctic.

"(2) EFFECT OF ACTION BY EXECUTIVE DIRECTOR.—An action taken by the executive director under paragraph (1) shall be final and binding on the Commission.

"(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Commission such sums as are necessary to carry out this section.".

SEC. 1349. ABRUPT CLIMATE CHANGE RESEARCH.

(a) IN GENERAL.—The Secretary of Commerce, through the National Oceanic and Atmospheric Administration, shall carry out a program of scientific research on potential abrupt climate change designed—

(1) to develop a global array of terrestrial and oceanographic indicators of paleoclimate in order sufficiently to identify and describe past instances of abrupt climate change;

(2) to improve understanding of thresholds and nonlinearities in geophysical systems related to the mechanisms of abrupt climate change;

(3) to incorporate these mechanisms into advanced geophysical models of climate change; and

(4) to test the output of these models against an improved global array of records of past abrupt climate changes.

(b) ABRUPT CLIMATE CHANGE DEFINED.—In this section, the term "abrupt climate change" means a change in climate that occurs so rapidly or unexpectedly that human or natural systems may have difficulty adapting to it.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce $10,000,000 for each of the fiscal years 2003 through 2008, and such sums as may be necessary for fiscal years after fiscal year 2008, to carry out subsection (a).

PART III—OCEAN AND COASTAL OBSERVING SYSTEM

SEC. 1351. OCEAN AND COASTAL OBSERVING SYSTEM.

(a) ESTABLISHMENT.—The President, through the National Ocean Research Leadership Council, established by section 7902(a) of title 10, United States Code, shall establish and maintain an integrated ocean and coastal observing system that provides for long-term, continuous, and real-time observations of the oceans and coasts for the purposes of—

(1) understanding, assessing and responding to human-induced and natural processes of global change;

(2) improving weather forecasts and public warnings;

(3) strengthening national security and military preparedness;

(4) enhancing the safety and efficiency of marine operations;

(5) supporting efforts to restore the health of and manage coastal and marine ecosystems and living resources;

(6) monitoring and evaluating the effectiveness of ocean and coastal environmental policies;

(7) reducing and mitigating ocean and coastal pollution; and

(8) providing information that contributes to public awareness of the state and importance of the oceans.

(b) COUNCIL FUNCTIONS.—In addition to its responsibilities under section 7902(a) of such title, the Council shall be responsible for planning and coordinating the observing system and in carrying out this responsibility shall—

(1) develop and submit to the Congress, within 6 months after the date of enactment of this Act, a plan for implementing a national ocean and coastal observing system that—

(A) uses an end-to-end engineering and development approach to develop a system design and schedule for operational implementation;

(B) determines how current and planned observing activities can be integrated in a cost-effective manner;

(C) provides for regional and concept demonstration projects;

(D) describes the role and estimated budget of each Federal agency in implementing the plan;

(E) contributes, to the extent practicable, to the National Global Change Research Plan under section 104 of the Global Change Research Act of 1990 (15 U.S.C. 2934); and

(F) makes recommendations for coordination of ocean observing activities of the United States with those of other nations and international organizations;

(2) serve as the mechanism for coordinating Federal ocean observing requirements and activities;

(3) work with academic, State, industry and other actual and potential users of the observing system to make effective use of existing capabilities and incorporate new technologies;

(4) approve standards and protocols for the administration of the system, including—

(A) a common set of measurements to be collected and distributed routinely and by uniform methods;

(B) standards for quality control and assessment of data;

(C) design, testing and employment of forecast models for ocean conditions;

(D) data management, including data transfer protocols and archiving; and

(E) designation of coastal ocean observing regions; and

(5) in consultation with the Secretary of State, provide representation at international meetings on ocean observing programs and coordinate relevant Federal activities with those of other nations.

(c) SYSTEM ELEMENTS.—The integrated ocean and coastal observing system shall include the following elements:

(1) A nationally coordinated network of regional coastal ocean observing systems that measure and disseminate a common set of ocean observations and related products in a uniform manner and according to sound scientific practice, but that are adapted to local and regional needs.

(2) Ocean sensors for climate observations, including the Arctic Ocean and sub-polar seas.

(3) Coastal, relocatable, and cabled sea floor observatories.

(4) Broad bandwidth communications that are capable of transmitting high volumes of data from open ocean locations at low cost and in real time.

(5) Ocean data management and assimilation systems that ensure full use of new sources of data from space-borne and in situ sensors.

(6) Focused research programs.

(7) Technology development program to develop new observing technologies and techniques, including data management and dissemination.

(8) Public outreach and education.

SEC. 1352. AUTHORIZATION OF APPROPRIATIONS.

For development and implementation of an integrated ocean and coastal observation system under this title, including financial assistance to regional coastal ocean observing systems, there are authorized to be appropriated $235,000,000 in fiscal year 2003, $315,000,000 in fiscal year 2004, $390,000,000 in fiscal year 2005, and $445,000,000 in fiscal year 2006.

Subtitle E—Climate Change Technology

SEC. 1361. NIST GREENHOUSE GAS FUNCTIONS.

Section 2(c) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)) is amended—

(1) by striking "and" after the semicolon in paragraph (21);

(2) by redesignating paragraph (22) as paragraph (23); and

(3) by inserting after paragraph (21) the following:

"(22) perform research to develop enhanced measurements, calibrations, standards, and technologies which will enable the reduced production in the United States of greenhouse gases associated with global warming, including carbon dioxide, methane, nitrous oxide, ozone, perfluorocarbons, hydrofluorocarbons, and sulfur hexafluoride; and".

SEC. 1362. DEVELOPMENT OF NEW MEASUREMENT TECHNOLOGIES.

The Secretary of Commerce shall initiate a program to develop, with technical assistance from appropriate Federal agencies, innovative standards and measurement technologies (including technologies to measure carbon changes due to changes in land use cover) to calculate—

(1) greenhouse gas emissions and reductions from agriculture, forestry, and other land use practices;

(2) noncarbon dioxide greenhouse gas emissions from transportation;

(3) greenhouse gas emissions from facilities or sources using remote sensing technology; and

(4) any other greenhouse gas emission or reductions for which no accurate or reliable measurement technology exists.

SEC. 1363. ENHANCED ENVIRONMENTAL MEASUREMENTS AND STANDARDS.

The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended—

(1) by redesignating sections 17 through 32 as sections 18 through 33, respectively; and

(2) by inserting after section 16 the following:

"SEC. 17. CLIMATE CHANGE STANDARDS AND PROCESSES.

"(a) IN GENERAL.—The Director shall establish within the Institute a program to perform and support research on global climate change standards and processes, with the goal of providing scientific and technical knowledge applicable to the reduction of greenhouse gases (as defined in section 4 of the Global Climate Change Act of 2002).

"(b) RESEARCH PROGRAM.—

"(1) IN GENERAL.—The Director is authorized to conduct, directly or through contracts or grants, a global climate change standards and processes research program.

"(2) RESEARCH PROJECTS.—The specific contents and priorities of the research program shall be determined in consultation with appropriate Federal agencies, including the Environmental Protection Agency, the National Oceanic and Atmospheric Administration, and the National Aeronautics and Space Administration. The program generally shall include basic and applied research—

"(A) to develop and provide the enhanced measurements, calibrations, data, models, and reference material standards which will enable the monitoring of greenhouse gases;

"(B) to assist in establishing a baseline reference point for future trading in greenhouse gases and the measurement of progress in emissions reduction;

"(C) that will be exchanged internationally as scientific or technical information which has the stated purpose of developing mutually recognized measurements, standards, and procedures for reducing greenhouse gases; and

"(D) to assist in developing improved industrial processes designed to reduce or eliminate greenhouse gases.

"(c) NATIONAL MEASUREMENT LABORATORIES.—

"(1) IN GENERAL.—In carrying out this section, the Director shall utilize the collective skills of the National Measurement Laboratories of the National Institute of Standards and Technology to improve the accuracy of measurements that will permit better understanding and control of these industrial chemical processes and result in the reduction or elimination of greenhouse gases.

"(2) MATERIAL, PROCESS, AND BUILDING RESEARCH.—The National Measurement Laboratories shall conduct research under this subsection that includes—

"(A) developing material and manufacturing processes which are designed for energy efficiency and reduced greenhouse gas emissions into the environment;

"(B) developing environmentally-friendly, 'green' chemical processes to be used by industry; and

"(C) enhancing building performance with a focus in developing standards or tools which will help incorporate low- or no-emission technologies into building designs.

"(3) STANDARDS AND TOOLS.—The National Measurement Laboratories shall develop standards

and tools under this subsection that include software to assist designers in selecting alternate building materials, performance data on materials, artificial intelligence-aided design procedures for building subsystems and 'smart buildings', and improved test methods and rating procedures for evaluating the energy performance of residential and commercial appliances and products.

"(d) NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.—The Director shall utilize the National Voluntary Laboratory Accreditation Program under this section to establish a program to include specific calibration or test standards and related methods and protocols assembled to satisfy the unique needs for accreditation in measuring the production of greenhouse gases. In carrying out this subsection the Director may cooperate with other departments and agencies of the Federal Government, State and local governments, and private organizations.".

SEC. 1364. TECHNOLOGY DEVELOPMENT AND DIFFUSION.

The Director of the National Institute of Standards and Technology, through the Manufacturing Extension Partnership Program, may develop a program to support the implementation of new "green" manufacturing technologies and techniques by the more than 380,000 small manufacturers.

SEC. 1365. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Director to carry out functions pursuant to sections 1345, 1351, and 1361 through 1363, $10,000,000 for fiscal years 2002 through 2006.

Subtitle F—Climate Adaptation and Hazards Prevention

PART I—ASSESSMENT AND ADAPTATION

SEC. 1371. REGIONAL CLIMATE ASSESSMENT AND ADAPTATION PROGRAM.

(a) IN GENERAL.—The President shall establish within the Department of Commerce a National Climate Change Vulnerability and Adaptation Program for regional impacts related to increasing concentrations of greenhouse gases in the atmosphere and climate variability.

(b) COORDINATION.—In designing such program the Secretary shall consult with the Federal Emergency Management Agency, the Environmental Protection Agency, the Army Corps of Engineers, the Department of Transportation, and other appropriate Federal, State, and local government entities.

(c) VULNERABILITY ASSESSMENTS.—The program shall—

(1) evaluate, based on predictions and other information developed under this Act and the National Climate Program Act (15 U.S.C. 2901 et seq.), re-

gional vulnerability to phenomena associated with climate change and climate variability, including—

(A) increases in severe weather events;

(B) sea level rise and shifts in the hydrological cycle;

(C) natural hazards, including tsunami, drought, flood and fire; and

(D) alteration of ecological communities, including at the ecosystem or watershed levels; and

(2) build upon predictions and other information developed in the National Assessments prepared under the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.).

(d) PREPAREDNESS RECOMMENDATIONS.—The program shall submit a report to Congress within 2 years after the date of enactment of this Act that identifies and recommends implementation and funding strategies for short- and long-term actions that may be taken at the national, regional, State, and local level—

(1) to reduce vulnerability of human life and property;

(2) to improve resilience to hazards;

(3) to minimize economic impacts; and

(4) to reduce threats to critical biological and ecological processes.

(e) INFORMATION AND TECHNOLOGY.—The Secretary shall make available appropriate information and other technologies and products that will assist national, regional, State, and local efforts, as well as efforts by other end-users, to reduce loss of life and property, and coordinate dissemination of such technologies and products.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce $4,500,000 to implement the requirements of this section.

SEC. 1372. COASTAL VULNERABILITY AND ADAPTATION.

(a) COASTAL VULNERABILITY.—Within 2 years after the date of enactment of this Act, the Secretary shall, in consultation with the appropriate Federal, State, and local governmental entities, conduct regional assessments of the vulnerability of coastal areas to hazards associated with climate change, climate variability, sea level rise, and fluctuation of Great Lakes water levels. The Secretary may also establish, as warranted, longer term regional assessment programs. The Secretary may also consult with the governments of Canada and Mexico as appropriate in developing such regional assessments. In preparing the regional assessments, the Secretary shall collect and compile current information on climate change, sea level rise, natural hazards, and coastal erosion and mapping, and specifically address impacts on Arctic regions and the Central, Western, and

South Pacific regions. The regional assessments shall include an evaluation of—

(1) social impacts associated with threats to and potential losses of housing, communities, and infrastructure;

(2) physical impacts such as coastal erosion, flooding and loss of estuarine habitat, saltwater intrusion of aquifers and saltwater encroachment, and species migration; and

(3) economic impact on local, State, and regional economies, including the impact on abundance or distribution of economically important living marine resources.

(b) COASTAL ADAPTATION PLAN.—The Secretary shall, within 3 years after the date of enactment of this Act, submit to the Congress a national coastal adaptation plan, composed of individual regional adaptation plans that recommend targets and strategies to address coastal impacts associated with climate change, sea level rise, or climate variability. The plan shall be developed with the participation of other Federal, State, and local government agencies that will be critical in the implementation of the plan at the State and local levels. The regional plans that will make up the national coastal adaptation plan shall be based on the information contained in the regional assessments and

shall identify special needs associated with Arctic areas and the Central, Western, and South Pacific regions. The Plan shall recommend both short- and long-term adaptation strategies and shall include recommendations regarding—

(1) Federal flood insurance program modifications;

(2) areas that have been identified as high risk through mapping and assessment;

(3) mitigation incentives such as rolling easements, strategic retreat, State or Federal acquisition in fee simple or other interest in land, construction standards, and zoning;

(4) land and property owner education;

(5) economic planning for small communities dependent upon affected coastal resources, including fisheries; and

(6) funding requirements and mechanisms.

(c) TECHNICAL PLANNING ASSISTANCE.—The Secretary, through the National Ocean Service, shall establish a coordinated program to provide technical planning assistance and products to coastal States and local governments as they develop and implement adaptation or mitigation strategies and plans. Products, information, tools and technical expertise generated from the development of the regional assessments and the regional adaptation plans will

be made available to coastal States for the purposes of developing their own State and local plans.

(d) COASTAL ADAPTATION GRANTS.—The Secretary shall provide grants of financial assistance to coastal States with federally approved coastal zone management programs to develop and begin implementing coastal adaptation programs if the State provides a Federal-to-State match of 4 to 1 in the first fiscal year, 2.3 to 1 in the second fiscal year, 2 to 1 in the third fiscal year, and 1 to 1 thereafter. Distribution of these funds to coastal States shall be based upon the formula established under section 306(c) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455(c)), adjusted in consultation with the States as necessary to provide assistance to particularly vulnerable coastlines.

(e) COASTAL RESPONSE PILOT PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a 4-year pilot program to provide financial assistance to coastal communities most adversely affected by the impact of climate change or climate variability that are located in States with federally approved coastal zone management programs.

(2) ELIGIBLE PROJECTS.—A project is eligible for financial assistance under the pilot program if it—

(A) will restore or strengthen coastal resources, facilities, or infrastructure that have been damaged by such an impact, as determined by the Secretary;

(B) meets the requirements of the Coastal Zone Management Act (16 U.S.C. 1451 et seq.) and is consistent with the coastal zone management plan of the State in which it is located; and

(C) will not cost more than $100,000.

(3) FUNDING SHARE.—The Federal funding share of any project under this subsection may not exceed 75 percent of the total cost of the project. In the administration of this paragraph—

(A) the Secretary may take into account in-kind contributions and other noncash support of any project to determine the Federal funding share for that project; and

(B) the Secretary may waive the requirements of this paragraph for a project in a community if—

(i) the Secretary determines that the project is important; and

(ii) the economy and available resources of the community in which the

project is to be conducted are insufficient to meet the non-Federal share of the project's costs.

(f) DEFINITIONS.—Any term used in this section that is defined in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453) has the meaning given it by that section.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $3,000,000 annually for regional assessments under subsection (a), and $3,000,000 annually for coastal adaptation grants under subsection (d).

SEC. 1373. ARCTIC RESEARCH CENTER.

(a) ESTABLISHMENT.—The Secretary of Commerce, in consultation with the Secretaries of Energy and the Interior, the Director of the National Science Foundation, and the Administrator of the Environmental Protection Agency, shall establish a joint research facility, to be known as the Barrow Arctic Research Center, to support climate change and other scientific research activities in the Arctic.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretaries of Commerce, Energy, and the Interior, the Director of the National Science Foundation, and the Administrator of the Environmental Protection Agency, $35,000,000 for the

planning, design, construction, and support of the Barrow Arctic Research Center.

PART II—FORECASTING AND PLANNING PILOT PROGRAMS

SEC. 1381. REMOTE SENSING PILOT PROJECTS.

(a) IN GENERAL.—The Administrator of the National Aeronautics and Space Administration may establish, through the National Oceanic and Atmospheric Administration's Coastal Services Center, a program of grants for competitively awarded pilot projects to explore the integrated use of sources of remote sensing and other geospatial information to address State, local, regional, and tribal agency needs to forecast a plan for adaptation to coastal zone and land use changes that may result as a consequence of global climate change or climate variability.

(b) PREFERRED PROJECTS.—In awarding grants under this section, the Center shall give preference to projects that—

(1) focus on areas that are most sensitive to the consequences of global climate change or climate variability;

(2) make use of existing public or commercial data sets;

(3) integrate multiple sources of geospatial information, such as geographic information system data,

satellite-provided positioning data, and remotely sensed data, in innovative ways;

(4) offer diverse, innovative approaches that may serve as models for establishing a future coordinated framework for planning strategies for adaptation to coastal zone and land use changes related to global climate change or climate variability;

(5) include funds or in-kind contributions from non-Federal sources;

(6) involve the participation of commercial entities that process raw or lightly processed data, often merging that data with other geospatial information, to create data products that have significant value added to the original data; and

(7) taken together demonstrate as diverse a set of public sector applications as possible.

(c) OPPORTUNITIES.—In carrying out this section, the Center shall seek opportunities to assist—

(1) in the development of commercial applications potentially available from the remote sensing industry; and

(2) State, local, regional, and tribal agencies in applying remote sensing and other geospatial information technologies for management and adaptation

to coastal and land use consequences of global climate change or climate variability.

(d) DURATION.—Assistance for a pilot project under subsection (a) shall be provided for a period of not more than 3 years.

(e) RESPONSIBILITIES OF GRANTEES.—Within 180 days after completion of a grant project, each recipient of a grant under subsection (a) shall transmit a report to the Center on the results of the pilot project and conduct at least one workshop for potential users to disseminate the lessons learned from the pilot project as widely as feasible.

(f) REGULATIONS.—The Center shall issue regulations establishing application, selection, and implementation procedures for pilot projects, and guidelines for reports and workshops required by this section.

SEC. 1382. DATABASE ESTABLISHMENT.

The Center shall establish and maintain an electronic, Internet-accessible database of the results of each pilot project completed under section 1381.

SEC. 1383. AIR QUALITY RESEARCH, FORECASTS AND WARNINGS.

(a) REGIONAL STUDIES.—The Secretary of Commerce, through the Administrator of the National Oceanographic and Atmospheric Administration, shall, in order of priority as listed in section (c), conduct regional studies of the air

quality within specific regions of the United States. Such studies should assess the effects of in situ emissions of air pollutants and their precursors, transport of such emissions and precursors from outside the region, and production of air pollutants within the region via chemical reactions.

(b) FORECASTS AND WARNINGS.—The Secretary of Commerce, through the Administrator of the National Oceanographic and Atmospheric Administration, shall, in order of priority as listed in section (c), establish a program to provide operational air quality forecasts and warnings for specific regions of the United States.

(c) DEFINITION.—For the purposes of this section, the term "specific regions of the United States" means the following geographical areas:

(1) the Northeast, composed of Main, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Delaware, the District of Columbia, and West Virginia;

(2) the Southeast, composed of Virginia, North Carolina, South Carolina, Georgia, Alabama, and Florida;

(3) the Midwest, composed of Minnesota, Wisconsin, Iowa, Missouri, Illinois, Kentucky, Indiana, Ohio, and Michigan;

(4) the South, composed of Tennessee, Mississippi, Louisiana, Arkansas, Oklahoma, and Texas;

(5) the High Plains, composed of North Dakota, South Dakota, Nebraska, and Kansas;

(6) the Northwest, composed of Washington, Oregon, Idaho, Montana, and Wyoming;

(7) the Southwest, composed of California, Nevada, Utah, Colorado, Arizona, and New Mexico;

(8) Alaska; and

(9) Hawaii.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce $3,000,000 for each of fiscal years 2003 through 2006 for studies pursuant to subsection (b) of this section, and $5,000,000 for fiscal year 2003 and such sums as may be necessary for subsequent fiscal years for the forecast and warning program pursuant to subsection (c) of this section.

SEC. 1384. DEFINITIONS.

In this subtitle:

(1) CENTER.—The term "Center" means the Coastal Services Center of the National Oceanic and Atmospheric Administration.

(2) GEOSPATIAL INFORMATION.—The term "geospatial information" means knowledge of the nature and distribution of physical and cultural fea-

tures on the landscape based on analysis of data from airborne or spaceborne platforms or other types and sources of data.

(3) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

SEC. 1385. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Administrator to carry out the provisions of this subtitle—

(1) $17,500,000 for fiscal year 2003;

(2) $20,000,000 for fiscal year 2004;

(3) $22,500,000 for fiscal year 2005; and

(4) $25,000,000 for fiscal year 2006.

TITLE XIV—MANAGEMENT OF DOE SCIENCE AND TECHNOLOGY PROGRAMS

SEC. 1401. DEFINITIONS.

In this title:

(1) APPLICABILITY OF DEFINITIONS.—The definitions in section 1203 shall apply.

(2) SINGLE-PURPOSE RESEARCH FACILITY.—The term "single-purpose research facility" means any of the following primarily single purpose entities owned by the Department of Energy—

(A) Ames Laboratory;

(B) East Tennessee Technology Park;

(C) Environmental Measurement Laboratory;

(D) Fernald Environmental Management Project;

(E) Fermi National Accelerator Laboratory;

(F) Kansas City Plant;

(G) Nevada Test Site;

(H) New Brunswick Laboratory;

(I) Pantex Weapons Facility;

(J) Princeton Plasma Physics Laboratory;

(K) Savannah River Technology Center;

(L) Stanford Linear Accelerator Center;

(M) Thomas Jefferson National Accelerator Facility;

(N) Y–12 facility at Oak Ridge National Laboratory;

(O) Waste Isolation Pilot Plant; or

(P) other similar organization of the Department designated by the Secretary that engages in technology transfer, partnering, or licensing activities.

SEC. 1402. AVAILABILITY OF FUNDS.

Funds authorized to be appropriated to the Department of Energy under title XII, title XIII, and title XV shall remain available until expended.

SEC. 1403. COST SHARING.

(a) RESEARCH AND DEVELOPMENT.—For research and development projects funded from appropriations authorized under subtitles A through D of title XII, the Secretary shall require a commitment from non-Federal sources of at least 20 percent of the cost of the project. The Secretary may reduce or eliminate the non-Federal requirement under this subsection if the Secretary determines that the research and development is of a basic or fundamental nature.

(b) DEMONSTRATION AND DEPLOYMENT.—For demonstration and technology deployment activities funded from appropriations authorized under subtitles A through D of title XII, the Secretary shall require a commitment from non-Federal sources of at least 50 percent of the costs of the project directly and specifically related to any demonstration or technology deployment activity. The Secretary may reduce or eliminate the non-Federal requirement under this subsection if the Secretary determines that the reduction is necessary and appropriate considering the technological risks involved in the project and is necessary to meet one or more goals of this title.

(c) CALCULATION OF AMOUNT.—In calculating the amount of the non-Federal commitment under subsection (a) or (b), the Secretary shall include cash, personnel, services, equipment, and other resources.

SEC. 1404. MERIT REVIEW OF PROPOSALS.

Awards of funds authorized under title XII, subtitle A of title XIII, and title XV shall be made only after an independent review of the scientific and technical merit of the proposals for such awards has been made by the Department of Energy.

SEC. 1405. EXTERNAL TECHNICAL REVIEW OF DEPARTMENTAL PROGRAMS.

(a) NATIONAL ENERGY RESEARCH AND DEVELOPMENT ADVISORY BOARDS.—(1) The Secretary shall establish an advisory board to oversee Department research and development programs in each of the following areas—

(A) energy efficiency;

(B) renewable energy;

(C) fossil energy;

(D) nuclear energy; and

(E) climate change technology, with emphasis on integration, collaboration, and other special features of the cross-cutting technologies supported by the Office of Climate Change Technology.

(2) The Secretary may designate an existing advisory board within the Department to fulfill the responsibilities of an advisory board under this subsection, or may enter into appropriate arrangements with the National Academy of Sciences to establish such an advisory board.

(b) UTILIZATION OF EXISTING COMMITTEES.—The Secretary of Energy shall continue to use the scientific program advisory committees chartered under the Federal Advisory Committee Act by the Office of Science to oversee research and development programs under that Office.

(c) MEMBERSHIP.—Each advisory board under this section shall consist of experts drawn from industry, academia, Federal laboratories, research institutions, or State, local, or tribal governments, as appropriate.

(d) MEETINGS AND PURPOSES.—Each advisory board under this section shall meet at least semi-annually to review and advise on the progress made by the respective research, development, demonstration, and technology deployment program. The advisory board shall also review the adequacy and relevance of the goals established for each program by Congress and the President, and may otherwise advise on promising future directions in research and development that should be considered by each program.

SEC. 1406. IMPROVED COORDINATION AND MANAGEMENT OF CIVILIAN SCIENCE AND TECHNOLOGY PROGRAMS.

(a) EFFECTIVE TOP-LEVEL COORDINATION OF RESEARCH AND DEVELOPMENT PROGRAMS.—Section 202(b) of the Department of Energy Organization Act (42 U.S.C. 7132(b)) is amended to read as follows:

"(b)(1) There shall be in the Department an Under Secretary for Energy and Science, who shall be appointed by the President, by and with the advice and consent of the Senate. The Under Secretary shall be compensated at the rate provided for at level III of the Executive Schedule under section 5314 of title 5, United States Code.

"(2) The Under Secretary for Energy and Science shall be appointed from among persons who—

"(A) have extensive background in scientific or engineering fields; and

"(B) are well qualified to manage the civilian research and development programs of the Department of Energy.

"(3) The Under Secretary for Energy and Science shall—

"(A) serve as the Science and Technology Advisor to the Secretary;

"(B) monitor the Department's research and development programs in order to advise the Secretary

with respect to any undesirable duplication or gaps in such programs;

"(C) advise the Secretary with respect to the well-being and management of the multipurpose laboratories under the jurisdiction of the Department;

"(D) advise the Secretary with respect to education and training activities required for effective short- and long-term basic and applied research activities of the Department;

"(E) advise the Secretary with respect to grants and other forms of financial assistance required for effective short- and long-term basic and applied research activities of the Department; and

"(F) exercise authority and responsibility over Assistant Secretaries carrying out energy research and development and energy technology functions under sections 203 and 209, as well as other elements of the Department assigned by the Secretary.".

(b) RECONFIGURATION OF POSITION OF DIRECTOR OF THE OFFICE OF SCIENCE.—Section 209 of the Department of Energy Organization Act (41 U.S.C. 7139) is amended to read as follows:

"(a) There shall be within the Department an Office of Science, to be headed by an Assistant Secretary of Science, who shall be appointed by the President, by and

with the advice and consent of the Senate, and who shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.

"(b) The Assistant Secretary of Science shall be in addition to the Assistant Secretaries provided for under section 203 of this Act.

"(c) It shall be the duty and responsibility of the Assistant Secretary of Science to carry out the fundamental science and engineering research functions of the Department, including the responsibility for policy and management of such research, as well as other functions vested in the Secretary which he may assign to the Assistant Secretary.".

(c) ADDITIONAL ASSISTANT SECRETARY POSITION TO ENABLE IMPROVED MANAGEMENT OF NUCLEAR ENERGY ISSUES.—

(1) Section 203(a) of the Department of Energy Organization Act (42 U.S.C. 7133(a)) is amended by striking "There shall be in the Department six Assistant Secretaries" and inserting "Except as provided in section 209, there shall be in the Department seven Assistant Secretaries".

(2) It is the sense of the Senate that the leadership for departmental missions in nuclear energy should be at the Assistant Secretary level.

(d) TECHNICAL AND CONFORMING AMENDMENTS.—

(1) Section 202 of the Department of Energy Organization Act (42 U.S.C. 7132) is further amended by adding the following at the end:

"(d) There shall be in the Department an Under Secretary, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall perform such functions and duties as the Secretary shall prescribe, consistent with this section. The Under Secretary shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

"(e) There shall be in the Department a General Counsel, who shall be appointed by the President, by and with the advice and consent of the Senate. The General Counsel shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.".

(2) Section 5314 of title 5, United States Code, is amended by striking "Under Secretaries of Energy (2)" and inserting "Under Secretaries of Energy (3)".

(3) Section 5315 of title 5, United States Code, is amended by—

(A) striking "Director, Office of Science, Department of Energy."; and

(B) striking "Assistant Secretaries of Energy (6)" and inserting "Assistant Secretaries of Energy (8)".

(4) The table of contents for the Department of Energy Organization Act (42 U.S.C. 7101 note) is amended—

(A) by striking "Section 209" and inserting "Sec. 209";

(B) by striking "213." and inserting "Sec. 213.";

(C) by striking "214." and inserting "Sec. 214.";

(D) by striking "215." and inserting "Sec. 215."; and

(E) by striking "216." and inserting "Sec. 216.".

SEC. 1407. IMPROVED COORDINATION OF TECHNOLOGY TRANSFER ACTIVITIES.

(a) TECHNOLOGY TRANSFER COORDINATOR.—The Secretary shall appoint a Technology Transfer Coordinator to perform oversight of and policy development for tech-

nology transfer activities at the Department. The Technology Transfer Coordinator shall coordinate the activities of the Technology Partnerships Working Group, and shall oversee the expenditure of funds allocated to the Technology Partnership Working Group.

(b) TECHNOLOGY PARTNERSHIP WORKING GROUP.—The Secretary shall establish a Technology Partnership Working Group, which shall consist of representatives of the National Laboratories and single-purpose research facilities, to—

(1) coordinate technology transfer activities occurring at National Laboratories and single-purpose research facilities;

(2) exchange information about technology transfer practices; and

(3) develop and disseminate to the public and prospective technology partners information about opportunities and procedures for technology transfer with the Department.

SEC. 1408. TECHNOLOGY INFRASTRUCTURE PROGRAM.

(a) ESTABLISHMENT.—The Secretary shall establish a Technology Infrastructure Program in accordance with this section.

(b) PURPOSE.—The purpose of the Technology Infrastructure Program shall be to improve the ability of Na-

tional Laboratories or single-purpose research facilities to support departmental missions by—

(1) stimulating the development of technology clusters that can support departmental missions at the National Laboratories or single-purpose research facilities;

(2) improving the ability of National Laboratories or single-purpose research facilities to leverage and benefit from commercial research, technology, products, processes, and services; and

(3) encouraging the exchange of scientific and technological expertise between National Laboratories or single-purpose research facilities and—

(A) institutions of higher education,

(B) technology-related business concerns,

(C) nonprofit institutions, and

(D) agencies of State, tribal, or local governments,

that can support departmental missions at the National Laboratories and single-purpose research facilities.

(c) PROJECTS.—The Secretary shall authorize the Director of each National Laboratory or facility to implement the Technology Infrastructure Program at such National Laboratory or single-purpose research facility through

projects that meet the requirements of subsections (d) and (e).

(d) PROGRAM REQUIREMENTS.—Each project funded under this section shall meet the following requirements:

(1) MINIMUM PARTICIPANTS.—Each project shall at a minimum include—

(A) a National Laboratory or single-purpose research facility; and

(B) one of the following entities—

(i) a business,

(ii) an institution of higher education,

(iii) a nonprofit institution, or

(iv) an agency of a State, local, or tribal government.

(2) COST SHARING.—

(A) MINIMUM AMOUNT.—Not less than 50 percent of the costs of each project funded under this section shall be provided from non-Federal sources.

(B) QUALIFIED FUNDING AND RESOURCES.—(i) The calculation of costs paid by the non-Federal sources to a project shall include cash, personnel, services, equipment, and other resources expended on the project.

(ii) Independent research and development expenses of Government contractors that qualify for reimbursement under section 31–205–18(e) of the Federal Acquisition Regulations issued pursuant to section 25(c)(1) of the Office of Federal Procurement Policy Act (41 U.S.C. 421(c)(1)) may be credited towards costs paid by non-Federal sources to a project, if the expenses meet the other requirements of this section.

(iii) No funds or other resources expended either before the start of a project under this section or outside the project's scope of work shall be credited toward the costs paid by the non-Federal sources to the project.

(3) COMPETITIVE SELECTION.—All projects in which a party other than the Department, a National Laboratory, or a single-purpose research facility receives funding under this section shall, to the extent practicable, be competitively selected by the National Laboratory or facility using procedures determined to be appropriate by the Secretary.

(4) ACCOUNTING STANDARDS.—Any participant that receives funds under this section, other than a National Laboratory or single-purpose research facility, may use generally accepted accounting principles

for maintaining accounts, books, and records relating to the project.

(5) LIMITATIONS.—No Federal funds shall be made available under this section for—

(A) construction; or

(B) any project for more than 5 years.

(e) SELECTION CRITERIA.—

(1) THRESHOLD FUNDING CRITERIA.—The Secretary shall allocate funds under this section only if the Director of the National Laboratory or single-purpose research facility managing the project determines that the project is likely to improve the ability of the National Laboratory or single-purpose research facility to achieve technical success in meeting departmental missions.

(2) ADDITIONAL CRITERIA.—The Secretary shall require the Director of the National Laboratory or single-purpose research facility managing a project under this section to consider the following criteria in selecting a project to receive Federal funds—

(A) the potential of the project to succeed, based on its technical merit, team members, management approach, resources, and project plan;

(B) the potential of the project to promote the development of a commercially sustainable technology cluster, which will derive most of the demand for its products or services from the private sector, and which will support departmental missions at the participating National Laboratory or single-purpose research facility;

(C) the potential of the project to promote the use of commercial research, technology, products, processes, and services by the participating National Laboratory or single-purpose research facility to achieve its departmental mission or the commercial development of technological innovations made at the participating National Laboratory or single-purpose research facility;

(D) the commitment shown by non-Federal organizations to the project, based primarily on the nature and amount of the financial and other resources they will risk on the project;

(E) the extent to which the project involves a wide variety and number of institutions of higher education, nonprofit institutions, and technology-related business concerns that can support the missions of the participating National Laboratory or single-purpose research fa-

cility and that will make substantive contributions to achieving the goals of the project;

(F) the extent of participation in the project by agencies of State, tribal, or local governments that will make substantive contributions to achieving the goals of the project;

(G) the extent to which the project focuses on promoting the development of technology-related business concerns that are small business concerns or involves such small business concerns substantively in the project; and

(H) such other criteria as the Secretary determines to be appropriate.

(f) REPORT TO CONGRESS.—Not later than January 1, 2004, the Secretary shall report to Congress on whether the Technology Infrastructure Program should be continued and, if so, how the program should be managed.

(g) DEFINITIONS.—In this section:

(1) TECHNOLOGY CLUSTER.—The term "technology cluster" means a concentration of—

(A) technology-related business concerns;

(B) institutions of higher education; or

(C) other nonprofit institutions;

that reinforce each other's performance in the areas of technology development through formal or informal relationships.

(2) TECHNOLOGY-RELATED BUSINESS CONCERN.—The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(A) conducts scientific or engineering research,

(B) develops new technologies,

(C) manufactures products based on new technologies, or

(D) performs technological services.

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for activities under this section $10,000,000 for each of fiscal years 2003 and 2004.

SEC. 1409. SMALL BUSINESS ADVOCACY AND ASSISTANCE.

(a) SMALL BUSINESS ADVOCATE.—The Secretary shall require the Director of each National Laboratory, and may require the Director of a single-purpose research facility, to appoint a small business advocate to—

(1) increase the participation of small business concerns, including socially and economically dis-

advantaged small business concerns, in procurement, collaborative research, technology licensing, and technology transfer activities conducted by the National Laboratory or single-purpose research facility;

(2) report to the Director of the National Laboratory or single-purpose research facility on the actual participation of small business concerns in procurement and collaborative research along with recommendations, if appropriate, on how to improve participation;

(3) make available to small business concerns training, mentoring, and clear, up-to-date information on how to participate in the procurement and collaborative research, including how to submit effective proposals;

(4) increase the awareness inside the National Laboratory or single-purpose research facility of the capabilities and opportunities presented by small business concerns; and

(5) establish guidelines for the program under subsection (b) and report on the effectiveness of such program to the Director of the National Laboratory or single-purpose research facility.

(b) ESTABLISHMENT OF SMALL BUSINESS ASSISTANCE PROGRAM.—The Secretary shall require the Director

of each National Laboratory, and may require the director of a single-purpose research facility, to establish a program to provide small business concerns—

(1) assistance directed at making them more effective and efficient subcontractors or suppliers to the National Laboratory or single-purpose research facility; or

(2) general technical assistance, the cost of which shall not exceed $10,000 per instance of assistance, to improve the small business concern's products or services.

(c) USE OF FUNDS.—None of the funds expended under subsection (b) may be used for direct grants to the small business concerns.

(d) DEFINITIONS.—In this section:

(1) SMALL BUSINESS CONCERN.—The term "small business concern" has the meaning given such term in section 3 of the Small Business Act (15 U.S.C. 632).

(2) SOCIALLY AND ECONOMICALLY DISADVANTAGED SMALL BUSINESS CONCERNS.—The term "socially and economically disadvantaged small business concerns" has the meaning given such term in section 8(a)(4) of the Small Business Act (15 U.S.C. 637(a)(4)).

SEC. 1410. OTHER TRANSACTIONS.

(a) IN GENERAL.—Section 646 of the Department of Energy Organization Act (42 U.S.C. 7256) is amended by adding at the end the following:

"(g) OTHER TRANSACTIONS AUTHORITY.—(1) In addition to other authorities granted to the Secretary to enter into procurement contracts, leases, cooperative agreements, grants, and other similar arrangements, the Secretary may enter into other transactions with public agencies, private organizations, or persons on such terms as the Secretary may deem appropriate in furtherance of basic, applied, and advanced research functions now or hereafter vested in the Secretary. Such other transactions shall not be subject to the provisions of section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908).

"(2)(A) The Secretary of Energy shall ensure that—

"(i) to the maximum extent practicable, no transaction entered into under paragraph (1) provides for research that duplicates research being conducted under existing programs carried out by the Department of Energy; and

"(ii) to the extent that the Secretary determines practicable, the funds provided by the Government under a transaction authorized by paragraph (1) do

not exceed the total amount provided by other parties to the transaction.

"(B) A transaction authorized by paragraph (1) may be used for a research project when the use of a standard contract, grant, or cooperative agreement for such project is not feasible or appropriate.

"(3)(A) The Secretary shall not disclose any trade secret or commercial or financial information submitted by a non-Federal entity under paragraph (1) that is privileged and confidential.

"(B) The Secretary shall not disclose, for 5 years after the date the information is received, any other information submitted by a non-Federal entity under paragraph (1), including any proposal, proposal abstract, document supporting a proposal, business plan, or technical information that is privileged and confidential.

"(C) The Secretary may protect from disclosure, for up to 5 years, any information developed pursuant to a transaction under paragraph (1) that would be protected from disclosure under section 552(b)(4) of title 5, United States Code, if obtained from a person other than a Federal agency.".

(b) IMPLEMENTATION.—Not later than 6 months after the date of enactment of this section, the Department shall establish guidelines for the use of other transactions.

SEC. 1411. MOBILITY OF SCIENTIFIC AND TECHNICAL PERSONNEL.

Not later than 2 years after the enactment of this section, the Secretary, acting through the Technology Transfer Coordinator under section 1407, shall determine whether each contractor operating a National Laboratory or single-purpose research facility has policies and procedures that do not create disincentives to the transfer of scientific and technical personnel among the contractor-operated National Laboratories or contractor-operated single-purpose research facilities.

SEC. 1412. NATIONAL ACADEMY OF SCIENCES REPORT.

Within 90 days after the date of enactment of this Act, the Secretary shall contract with the National Academy of Sciences to—

(1) conduct a study on the obstacles to accelerating the innovation cycle for energy technology, and

(2) report to the Congress recommendations for shortening the cycle of research, development, and deployment.

SEC. 1413. REPORT ON TECHNOLOGY READINESS AND BARRIERS TO TECHNOLOGY TRANSFER.

(a) IN GENERAL.—The Secretary, acting through the Technology Partnership Working Group and in consulta-

tion with representatives of affected industries, universities, and small business concerns, shall—

(1) assess the readiness for technology transfer of energy technologies developed through projects funded from appropriations authorized under subtitles A through D of title XIV, and

(2) identify barriers to technology transfer and cooperative research and development agreements between the Department or a National Laboratory and a non-Federal person; and

(3) make recommendations for administrative or legislative actions needed to reduce or eliminate such barriers.

(b) REPORT.—The Secretary shall provide a report to Congress and the President on activities carried out under this section not later than 1 year after the date of enactment of this section, and shall update such report on a biennial basis, taking into account progress toward eliminating barriers to technology transfer identified in previous reports under this section.

SEC. 1414. UNITED STATES-MEXICO ENERGY TECHNOLOGY COOPERATION.

(a) FINDING.—Congress finds that the economic and energy security of the United States and Mexico is furthered

through collaboration between the United States and Mexico on research related to energy technologies.

(b) PROGRAM.—

(1) IN GENERAL.—The Secretary, acting through the Assistant Secretary for Environmental Management, shall establish a collaborative research, development, and deployment program to promote energy efficient, environmentally sound economic development along the United States-Mexico border to—

(A) mitigate hazardous waste;

(B) promote energy efficient materials processing technologies that minimize environmental damage; and

(C) protect the public health.

(2) CONSULTATION.—The Secretary, acting through the Assistant Secretary for Environmental Management, shall consult with the Office of Energy Efficiency and Renewable Energy in carrying out paragraph (1)(B).

(c) PROGRAM MANAGEMENT.—The program under subsection (b) shall be managed by the Department of Energy Carlsbad Environmental Management Field Office.

(d) COST SHARING.—The cost of any project or activity carried out using funds provided under this section shall be shared as provided in section 1403.

(e) TECHNOLOGY TRANSFER.—In carrying out projects and activities under this section to mitigate hazardous waste, the Secretary shall emphasize the transfer of technology developed under the Environmental Management Science Program of the Department of Energy.

(f) INTELLECTUAL PROPERTY.—In carrying out this section, the Secretary shall comply with the requirements of any agreement entered between the United States and Mexico regarding intellectual property protection.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $5,000,000 for fiscal year 2003 and $6,000,000 for each of fiscal years 2004 through 2006, to remain available until expended.

TITLE XV—PERSONNEL AND TRAINING

SEC. 1501. WORKFORCE TRENDS AND TRAINEESHIP GRANTS.

(a) WORKFORCE TRENDS.—

(1) MONITORING.—The Secretary of Energy (in this title referred to as the "Secretary"), acting through the Administrator of the Energy Information Administration, in consultation with the Secretary of Labor, shall monitor trends in the workforce of skilled technical personnel supporting energy technology in-

dustries, including renewable energy industries, companies developing and commercializing devices to increase energy-efficiency, the oil and gas industry, the electric power generation industry (including the nuclear power industry), the coal industry, and other industrial sectors as the Secretary may deem appropriate.

(2) ANNUAL REPORTS.—The Administrator of the Energy Information Administration shall include statistics on energy industry workforce trends in the annual reports of the Energy Information Administration.

(3) SPECIAL REPORTS.—The Secretary shall report to the appropriate committees of Congress whenever the Secretary determines that significant shortfalls of technical personnel in one or more energy industry segments are forecast or have occurred.

(b) TRAINEESHIP GRANTS FOR TECHNICALLY SKILLED PERSONNEL.—

(1) GRANT PROGRAMS.—The Secretary shall establish grant programs in the appropriate offices of the Department to enhance training of technically skilled personnel for which a shortfall is determined under subsection (a).

(2) ELIGIBLE INSTITUTIONS.—As determined by the Secretary to be appropriate to the particular workforce shortfall, the Secretary shall make grants under paragraph (1) to—

(A) an institution of higher education;

(B) a postsecondary educational institution providing vocational and technical education (within the meaning given those terms in section 3 of the Carl D. Perkins Vocational and Technical Education Act of 1998 (20 U.S.C. 2302));

(C) appropriate agencies of State, local, or tribal governments; or

(D) joint labor and management training organizations with State or federally recognized apprenticeship programs and other employee-based training organizations as the Secretary considers appropriate.

(c) DEFINITION.—For purposes of this section, the term "skilled technical personnel" means journey and apprentice level workers who are enrolled in or have completed a State or federally recognized apprenticeship program and other skilled workers in energy technology industries.

(d) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under

this section such sums as may be necessary for each fiscal year.

SEC. 1502. POSTDOCTORAL AND SENIOR RESEARCH FELLOWSHIPS IN ENERGY RESEARCH.

(a) POSTDOCTORAL FELLOWSHIPS.—The Secretary shall establish a program of fellowships to encourage outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development at institutions of higher education of their choice. In establishing a program under this subsection, the Secretary may enter into appropriate arrangements with the National Academy of Sciences to help administer the program.

(b) DISTINGUISHED SENIOR RESEARCH FELLOWSHIPS.—The Secretary shall establish a program of fellowships to allow outstanding senior researchers in energy research and development and their research groups to explore research and development topics of their choosing for a fixed period of time. Awards under this program shall be made on the basis of past scientific or technical accomplishment and promise for continued accomplishment during the period of support, which shall not be less than 3 years.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1241(c), there are authorized to be appropriated to the Secretary for activities under

this section such sums as may be necessary for each fiscal year.

SEC. 1503. TRAINING GUIDELINES FOR ELECTRIC ENERGY INDUSTRY PERSONNEL.

(a) MODEL GUIDELINES.—The Secretary shall, in cooperation with electric generation, transmission, and distribution companies and recognized representatives of employees of those entities, develop model employee training guidelines to support electric supply system reliability and safety.

(b) CONTENT OF GUIDELINES.—The guidelines under this section shall include—

(1) requirements for worker training, competency, and certification, developed using criteria set forth by the Utility Industry Group recognized by the National Skill Standards Board; and

(2) consolidation of existing guidelines on the construction, operation, maintenance, and inspection of electric supply generation, transmission and distribution facilities such as those established by the National Electric Safety Code and other industry consensus standards.

SEC. 1504. NATIONAL CENTER ON ENERGY MANAGEMENT AND BUILDING TECHNOLOGIES.

The Secretary shall establish a National Center on Energy Management and Building Technologies, to carry out research, education, and training activities to facilitate the improvement of energy efficiency and indoor air quality in industrial, commercial and residential buildings. The National Center shall be established in cooperation with—

(1) recognized representatives of employees in the heating, ventilation, and air-conditioning industry;

(2) contractors that install and maintain heating, ventilation and air-conditioning systems and equipment;

(3) manufacturers of heating, ventilation and air-conditioning systems and equipment;

(4) representatives of the advanced building envelope industry, including design, windows, lighting, and insulation industries; and

(5) other entities as appropriate.

SEC. 1505. IMPROVED ACCESS TO ENERGY-RELATED SCIENTIFIC AND TECHNICAL CAREERS.

(a) DEPARTMENT OF ENERGY SCIENCE EDUCATION PROGRAMS.—Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended by adding at the end the following:

"(c) PROGRAMS FOR WOMEN AND MINORITY STUDENTS.—In carrying out a program under subsection (a), the Secretary shall give priority to activities that are designed to encourage women and minority students to pursue scientific and technical careers.".

(b) PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING INSTITUTIONS, AND TRIBAL COLLEGES.—The Department of Energy Science Education Enhancement Act (42 U.S.C. 7381 et seq.) is amended—

(1) by redesignating sections 3167 and 3168 as sections 3168 and 3169, respectively; and

(2) by inserting after section 3166 the following:

"SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-SERVING INSTITUTIONS, AND TRIBAL COLLEGES.

"(a) DEFINITIONS.—In this section:

"(1) HISPANIC-SERVING INSTITUTION.—The term 'Hispanic-serving institution' has the meaning given the term in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)).

"(2) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term 'historically Black college or university' has the meaning given the term 'part B institu-

tion' in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

"(3) NATIONAL LABORATORY.—The term 'National Laboratory' has the meaning given the term in section 1203 of the Energy Science and Technology Enhancement Act of 2002.

"(4) SCIENCE FACILITY.—The term 'science facility' has the meaning given the term 'single-purpose research facility' in section 1401 of the Energy Science and Technology Enhancement Act of 2002.

"(5) TRIBAL COLLEGE.—The term 'tribal college' has the meaning given the term 'tribally controlled college or university' in section 2(a) of the Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C. 1801(a)).

"(b) EDUCATION PARTNERSHIP.—

"(1) IN GENERAL.—The Secretary shall direct the Director of each National Laboratory, and may direct the head of any science facility, to increase the participation of historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges in activities that increase the capacity of the historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges to train personnel in science or engineering.

"(2) ACTIVITIES.—An activity under paragraph (1) may include—

"(A) collaborative research;

"(B) a transfer of equipment;

"(C) training of personnel at a National Laboratory or science facility; and

"(D) a mentoring activity by personnel at a National Laboratory or science facility.

"(c) REPORT.—Not later than 2 years after the date of enactment of this section, the Secretary shall submit to the Committee on Science of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the activities carried out under this section.".

SEC. 1506. NATIONAL POWER PLANT OPERATIONS TECHNOLOGY AND EDUCATION CENTER.

(a) ESTABLISHMENT.—The Secretary shall establish a National Power Plant Operations Technology and Education Center (the "Center"), to address the need for training and educating certified operators for electric power generation plants.

(b) ROLE.—The Center shall provide both training and continuing education relating to electric power generation plant technologies and operations. The Center shall conduct training and education activities on site and

through Internet-based information technologies that allow for learning at remote sites.

(c) CRITERIA FOR COMPETITIVE SELECTION.—The Secretary shall establish the Center at an institution of higher education with expertise in plant technology and operation and that can provide on-site as well as Internet-based training.

SEC. 1507. FEDERAL MINE INSPECTORS.

In light of projected retirements of Federal mine inspectors and the need for additional personnel, the Secretary of Labor shall hire, train, and deploy such additional skilled mine inspectors (particularly inspectors with practical experience as a practical mining engineer) as necessary to ensure the availability of skilled and experienced individuals and to maintain the number of Federal mine inspectors at or above the levels authorized by law or established by regulation.

DIVISION F—TECHNOLOGY ASSESSMENT AND STUDIES

TITLE XVI—TECHNOLOGY ASSESSMENT

SEC. 1601. NATIONAL SCIENCE AND TECHNOLOGY ASSESSMENT SERVICE.

The National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.) is amended by adding at the end the following:

"TITLE VII—NATIONAL SCIENCE AND TECHNOLOGY ASSESSMENT SERVICE

"SEC. 701. ESTABLISHMENT.

"There is hereby created a Science and Technology Assessment Service (hereinafter referred to as the 'Service'), which shall be within and responsible to the legislative branch of the Government.

"SEC. 702. COMPOSITION.

"The Service shall consist of a Science and Technology Board (hereinafter referred to as the 'Board') which shall formulate and promulgate the policies of the Service, and a Director who shall carry out such policies and administer the operations of the Service.

"SEC. 703. FUNCTIONS AND DUTIES.

"The Service shall coordinate and develop information for Congress relating to the uses and application of technology to address current national science and technology policy issues. In developing such technical assessments for Congress, the Service shall utilize, to the extent practicable, experts selected in coordination with the National Research Council.

"SEC. 704. INITIATION OF ACTIVITIES.

"Science and technology assessment activities undertaken by the Service may be initiated upon the request of—

"(1) the Chairman of any standing, special, or select committee of either House of the Congress, or of any joint committee of the Congress, acting for himself or at the request of the ranking minority member or a majority of the committee members;

"(2) the Board; or

"(3) the Director.

"SEC. 705. ADMINISTRATION AND SUPPORT.

"The Director of the Science and Technology Assessment Service shall be appointed by the Board and shall serve for a term of 6 years unless sooner removed by the Board. The Director shall receive basic pay at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code. The Director shall con-

tract for administrative support from the Library of Congress.

"SEC. 706. AUTHORITY.

"The Service shall have the authority, within the limits of available appropriations, to do all things necessary to carry out the provisions of this section, including, but without being limited to, the authority to—

"(1) make full use of competent personnel and organizations outside the Office, public or private, and form special ad hoc task forces or make other arrangements when appropriate;

"(2) enter into contracts or other arrangements as may be necessary for the conduct of the work of the Office with any agency or instrumentality of the United States, with any State, territory, or possession or any political subdivision thereof, or with any person, firm, association, corporation, or educational institution, with or without reimbursement, without performance or other bonds, and without regard to section 3709 of the Revised Statutes (41 U.S.C. 51);

"(3) accept and utilize the services of voluntary and uncompensated personnel necessary for the conduct of the work of the Service and provide transportation and subsistence as authorized by section 5703

of title 5, United States Code, for persons serving without compensation; and

"(4) prescribe such rules and regulations as it deems necessary governing the operation and organization of the Service.

"SEC. 707. BOARD.

"The Board shall consist of 13 members as follows—

"(1) six Members of the Senate, appointed by the President pro tempore of the Senate, three from the majority party and three from the minority party;

"(2) six Members of the House of Representatives appointed by the Speaker of the House of Representatives, three from the majority party and three from the minority party; and

"(3) the Director, who shall not be a voting member.

"SEC. 708. REPORT TO CONGRESS.

"The Service shall submit to the Congress an annual report which shall include, but not be limited to, an evaluation of technology assessment techniques and identification, insofar as may be feasible, of technological areas and programs requiring future analysis. The annual report shall be submitted not later than March 15 of each year.

"SEC. 709. AUTHORIZATION OF APPROPRIATIONS.

"There are authorized to be appropriated to the Service such sums as are necessary to fulfill the requirements of this title.".

TITLE XVII—STUDIES

SEC. 1701. REGULATORY REVIEWS.

(a) REGULATORY REVIEWS.—Not later than 1 year after the date of enactment of this section and every 5 years thereafter, each Federal agency shall review relevant regulations and standards to identify—

(1) existing regulations and standards that act as barriers to—

(A) market entry for emerging energy technologies (including fuel cells, combined heat and power, distributed power generation, and small-scale renewable energy), and

(B) market development and expansion for existing energy technologies (including combined heat and power, small-scale renewable energy, geothermal heat pump technology, and energy recovery in industrial processes), and

(2) actions the agency is taking or could take to—

(A) remove barriers to market entry for emerging energy technologies and to market expansion for existing technologies,

(B) increase energy efficiency and conservation, or

(C) encourage the use of new and existing processes to meet energy and environmental goals.

(b) REPORT TO CONGRESS.—Not later than 18 months after the date of enactment of this section, and every 5 years thereafter, the Director of the Office of Science and Technology Policy shall report to the Congress on the results of the agency reviews conducted under subsection (a).

(c) CONTENTS OF THE REPORT.—The report shall—

(1) identify all regulatory barriers to—

(A) the development and commercialization of emerging energy technologies and processes, and

(B) the further development and expansion of existing energy conservation technologies and processes,

(2) actions taken, or proposed to be taken, to remove such barriers, and

(3) recommendations for changes in laws or regulations that may be needed to—

(A) expedite the siting and development of energy production and distribution facilities,

(B) encourage the adoption of energy efficiency and process improvements,

(C) facilitate the expanded use of existing energy conservation technologies, and

(D) reduce the environmental impacts of energy facilities and processes through transparent and flexible compliance methods.

SEC. 1702. ASSESSMENT OF DEPENDENCE OF STATE OF HAWAII ON OIL.

(a) ASSESSMENT.—The Secretary of Energy shall assess the economic implications of the dependence of the State of Hawaii on oil as the principal source of energy for the State, including—

(1) the short- and long-term prospects for crude oil supply disruption and price volatility and potential impacts on the economy of Hawaii;

(2) the economic relationship between oil-fired generation of electricity from residual fuel and refined petroleum products consumed for ground, marine, and air transportation;

(3) the technical and economic feasibility of increasing the contribution of renewable energy resources for generation of electricity, on an island-by-island basis, including—

(A) siting and facility configuration;

(B) environmental, operational, and safety considerations;

(C) the availability of technology;

(D) effects on the utility system, including reliability;

(E) infrastructure and transport requirements;

(F) community support; and

(G) other factors affecting the economic impact of such an increase and any effect on the economic relationship described in paragraph (2);

(4) the technical and economic feasibility of using liquefied natural gas to displace residual fuel oil for electric generation, including neighbor island opportunities, and the effect of such displacement on the economic relationship described in paragraph (2), including—

(A) the availability of supply;

(B) siting and facility configuration for onshore and offshore liquefied natural gas receiving terminals;

(C) the factors described in subparagraphs (B) through (F) of paragraph (3); and

(D) other economic factors;

(5) the technical and economic feasibility of using renewable energy sources (including hydrogen) for ground, marine, and air transportation energy applications to displace the use of refined petroleum products, on an island-by-island basis, and the economic impact of such displacement on the relationship described in paragraph (2); and

(6) an island-by-island approach to—

(A) the development of hydrogen from renewable resources; and

(B) the application of hydrogen to the energy needs of Hawaii.

(b) CONTRACTING AUTHORITY.—The Secretary may carry out the assessment under subsection (a) directly or, in whole or in part, through one or more contracts with qualified public or private entities.

(c) REPORT.—Not later than 300 days after the date of enactment of this Act, the Secretary shall prepare, in consultation with agencies of the State of Hawaii and other stakeholders, as appropriate, and submit to Congress, a report detailing the findings, conclusions, and recommendations resulting from the assessment.

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

SEC. 1703. STUDY OF SITING AN ELECTRIC TRANSMISSION SYSTEM ON AMTRAK RIGHT-OF-WAY.

(a) STUDY.—The Secretary of Energy shall contract with Amtrak to conduct a study of the feasibility of building and operating a new electric transmission system on the Amtrak right-of-way in the Northeast Corridor.

(b) SCOPE OF THE STUDY.—The study shall focus on siting the new system on the Amtrak right-of-way within the Northeast Corridor between Washington, D.C., and New Rochelle, New York, including the Amtrak right-of-way between Philadelphia, Pennsylvania and Harrisburg, Pennsylvania.

(c) CONTENTS OF THE STUDY.—The study shall consider—

(1) alternative geographic configuration of a new electronic transmission system on the Amtrak right-of-way;

(2) alternative technologies for the system;

(3) the estimated costs of building and operating each alternative;

(4) alternative means of financing the system;

(5) the environmental risks and benefits of building and operating each alternative as well as environmental risks and benefits of building and operating the system on the Northeast Corridor rather than at other locations;

(6) engineering and technological obstacles to building and operating each alternative; and

(7) the extent to which each alternative would enhance the reliability of the electric transmission grid and enhance competition in the sale of electric energy at wholesale within the Northeast Corridor.

(d) RECOMMENDATIONS.—The study shall recommend the optimal geographic configuration, the optimal technology, the optimal engineering design, and the optimal means of financing for the new system from among the alternatives considered.

(e) REPORT.—The Secretary of Energy shall submit the completed study to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Energy and Commerce of the House of Representatives not later than 270 days after the date of enactment of this section.

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

(1) the term "Amtrak" means the National Railroad Passenger Corporation established under chapter 243 of title 49, United States Code; and

(2) the term "Northeast Corridor" shall have the meaning given such term under section 24102(7) of title 49, United States Code.

SEC. 1704. UPDATING OF INSULAR AREA RENEWABLE ENERGY AND ENERGY EFFICIENCY PLANS.

Section 604 of Public Law 96–597 (48 U.S.C. 1492) is amended—

(1) in subsection (a) at the end of paragraph (4) by striking "resources." and inserting "resources; and

"(5) the development of renewable energy and energy efficiency technologies since publication of the 1982 Territorial Energy Assessment prepared under subsection (c) reveals the need to reassess the state of energy production, consumption, efficiency, infrastructure, reliance on imported energy, and potential of the indigenous renewable energy resources and energy efficiency in regard to the insular areas."; and

(2) by adding at the end of subsection (e) "The Secretary of Energy, in consultation with the Secretary of the Interior and the chief executive officer of each insular area, shall update the plans required under subsection (c) and draft long-term energy plans for each insular area that will reduce, to the extent feasible, the reliance of the insular area on energy imports by the year 2010, and maximize, to the extent feasible, use of renewable energy resources and energy efficiency opportunities. Not later than December 31, 2002, the Secretary of Energy shall submit the updated plans to Congress.".

SEC. 1705. CONSUMER ENERGY COMMISSION.

(a) ESTABLISHMENT OF COMMISSION.—There is established a commission to be known as the "Consumer Energy Commission".

(b) MEMBERSHIP.—

(1) IN GENERAL.—The Commission shall be comprised of 11 members who shall be appointed within 30 days from the date of enactment of this section and who shall serve for the life of the Commission.

(2) APPOINTMENTS IN THE SENATE AND THE HOUSE.—The Majority Leader and the Minority Leader of the Senate and the Speaker and Minority Leader of the House of Representatives shall each appoint 2 members—

(A) one of whom shall represent consumer groups focusing on energy issues; and

(B) one of whom shall represent the energy industry.

(3) APPOINTMENTS BY THE PRESIDENT.—The President shall appoint three members—

(A) one of whom shall represent consumer groups focusing on energy issues;

(B) one of whom shall represent the energy industry; and

(C) one of whom shall represent the Department of Energy.

(c) INITIAL MEETING.—Not later than 60 days after the date of enactment of this Act, the Commission shall hold the first meeting of the Commission regardless of the number of members that have been appointed and shall select a Chairperson and Vice Chairperson from among the members of the Commission.

(d) ADMINISTRATIVE EXPENSES.—Members of the Commission shall serve without compensation, except for per diem and travel expenses which shall be reimbursed, and the Department of Energy shall pay expenses as necessary to carry out this section, with the expenses not to exceed $400,000.

(e) STUDIES.—The Commission shall conduct a nationwide study of significant price spikes since 1990 in major United States consumer energy products, including electricity, gasoline, home heating oil, natural gas and propane with a focus on their causes including insufficient inventories, supply disruptions, refinery capacity limits, insufficient infrastructure, regulatory failures, demand growth, reliance on imported supplies, insufficient availability of alternative energy sources, abuse of market power, market concentration and any other relevant factors.

(f) REPORT.—Not later than 180 days after the date of the first meeting of the Commission, the Commission shall submit to Congress a report that contains the findings

and conclusions of the Commission and any recommendations for legislation, administrative actions, and voluntary actions by industry and consumers to protect consumers and small businesses from future price spikes in consumer energy products.

(g) CONSULTATION.—The Commission shall consult with the Federal Trade Commission, the Federal Energy Regulatory Commission, the Department of Energy and other Federal and State agencies as appropriate.

(h) SUNSET.—The Commission shall terminate within 30 days after the submission of the report to Congress.

SEC. 1706. STUDY OF NATURAL GAS AND OTHER ENERGY TRANSMISSION INFRASTRUCTURE ACROSS THE GREAT LAKES.

(a) DEFINITIONS.—In this section:

(1) GREAT LAKE.—The term "Great Lake" means Lake Erie, Lake Huron (including Lake Saint Clair), Lake Michigan, Lake Ontario (including the Saint Lawrence River from Lake Ontario to the 45th parallel of latitude), and Lake Superior.

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

(b) STUDY.—

(1) IN GENERAL.—The Secretary, in consultation with representatives of appropriate Federal and State agencies, shall—

(A) conduct a study of—

(i) the location and extent of anticipated growth of natural gas and other energy transmission infrastructure proposed to be constructed across the Great Lakes; and

(ii) the environmental impacts of any natural gas or other energy transmission infrastructure proposed to be constructed across the Great Lakes; and

(B) make recommendations for minimizing the environmental impact of pipelines and other energy transmission infrastructure on the Great Lakes ecosystem.

(2) ADVISORY COMMITTEE.—Not later than 30 days after the date of enactment of this Act, the Secretary shall enter into an agreement with the National Academy of Sciences to establish an advisory committee to ensure that the study is complete, objective, and of good quality.

(c) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Con-

gress a report that describes the findings and recommendations resulting from the study under subsection (b).

SEC. 1707. NATIONAL ACADEMY OF SCIENCES STUDY OF PROCEDURES FOR SELECTION AND ASSESSMENT OF CERTAIN ROUTES FOR SHIPMENT OF SPENT NUCLEAR FUEL FROM RESEARCH NUCLEAR REACTORS.

(a) IN GENERAL.—The Secretary of Transportation shall enter into an agreement with the National Academy of Sciences under which agreement the National Academy of Sciences shall conduct a study of the procedures by which the Department of Energy, together with the Department of Transportation and the Nuclear Regulatory Commission, selects routes for the shipment of spent nuclear fuel from research nuclear reactors between or among existing Department of Energy facilities currently licensed to accept such spent nuclear fuel.

(b) ELEMENTS OF STUDY.—In conducting the study under subsection (a), the National Academy of Sciences shall analyze the manner in which the Department of Energy—

(1) selects potential routes for the shipment of spent nuclear fuel from research nuclear reactors between or among existing Department facilities currently licensed to accept such spent nuclear fuel;

(2) selects such a route for a specific shipment of such spent nuclear fuel; and

(3) conducts assessments of the risks associated with shipments of such spent nuclear fuel along such a route.

(c) CONSIDERATIONS REGARDING ROUTE SELECTION.—The analysis under subsection (b) shall include a consideration whether, and to what extent, the procedures analyzed for purposes of that subsection take into account the following:

(1) The proximity of the routes under consideration to major population centers and the risks associated with shipments of spent nuclear fuel from research nuclear reactors through densely populated areas.

(2) Current traffic and accident data with respect to the routes under consideration.

(3) The quality of the roads comprising the routes under consideration.

(4) Emergency response capabilities along the routes under consideration.

(5) The proximity of the routes under consideration to places or venues (including sports stadiums, convention centers, concert halls and theaters, and other venues) where large numbers of people gather.

(d) RECOMMENDATIONS.—In conducting the study under subsection (a), the National Academy of Sciences shall also make such recommendations regarding the matters studied as the National Academy of Sciences considers appropriate.

(e) DEADLINE FOR DISPERSAL OF FUNDS FOR STUDY.—The Secretary shall disperse to the National Academy of Sciences the funds for the cost of the study required by subsection (a) not later than 30 days after the date of the enactment of this Act.

(f) REPORT ON RESULTS OF STUDY.—Not later than 6 months after the date of the dispersal of funds under subsection (e), the National Academy of Sciences shall submit to the appropriate committees of Congress a report on the study conducted under subsection (a), including the recommendations required by subsection (d).

(g) APPROPRIATE COMMITTEES OF CONGRESS DEFINED.—In this section, the term "appropriate committees of Congress" means—

(1) the Committees on Commerce, Science, and Transportation, Energy and Natural Resources, and Environment and Public Works of the Senate; and

(2) the Committee on Energy and Commerce of the House of Representatives.

SEC. 1708. REPORT ON ENERGY SAVINGS AND WATER USE.

(a) REPORT.—The Secretary of Energy shall conduct a study of opportunities to reduce energy use by cost-effective improvements in the efficiency of municipal water and wastewater treatment and use, including water pumps, motors, and delivery systems; purification, conveyance and distribution; upgrading of aging water infrastructure, and improved methods for leakage monitoring, measuring, and reporting; and public education.

(b) SUBMISSION OF REPORT.—The Secretary of Energy shall submit a report on the results of the study, including any recommendations for implementation of measures and estimates of costs and resource savings, no later than 2 years from the date of enactment of this section.

(c) AUTHORIZATION.—There is hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this section.

SEC. 1709. REPORT ON RESEARCH ON HYDROGEN PRODUCTION AND USE.

Not later than 120 days after the date of enactment of this Act, the Secretary of Energy shall submit to Congress a report that identifies current or potential research projects at Department of Energy nuclear facilities relating to the production or use of hydrogen in fuel cell development or any other method or process enhancing alternative energy production technologies.

DIVISION G—ENERGY INFRASTRUCTURE SECURITY

TITLE XVIII—CRITICAL ENERGY INFRASTRUCTURE

Subtitle A—Department of Energy Programs

SEC. 1801. DEFINITIONS.

In this title:

(1) CRITICAL ENERGY INFRASTRUCTURE.—

(A) IN GENERAL.—The term "critical energy infrastructure" means a physical or cyber-based system or service for—

(i) the generation, transmission or distribution of electric energy; or

(ii) the production, refining, or storage of petroleum, natural gas, or petroleum product—

the incapacity or destruction of which would have a debilitating impact on the defense or economic security of the United States.

(B) EXCLUSION.—The term shall not include a facility that is licensed by the Nuclear Regulatory Commission under section 103 or 104b. of the Atomic Energy Act of 1954 (42 U.S.C. 2133 and 2134(b)).

(2) DEPARTMENT; NATIONAL LABORATORY; SECRETARY.—The terms "Department", "National Laboratory", and "Secretary" have the meaning given such terms in section 1203.

SEC. 1802. ROLE OF THE DEPARTMENT OF ENERGY.

Section 102 of the Department of Energy Organization Act (42 U.S.C. 7112) is amended by adding at the end the following:

"(20) To ensure the safety, reliability, and security of the Nation's energy infrastructure, and to respond to any threat to or disruption of such infrastructure, through activities including—

"(A) research and development;

"(B) financial assistance, technical assistance, and cooperative activities with States, industry, and other interested parties; and

"(C) education and public outreach activities.".

SEC. 1803. CRITICAL ENERGY INFRASTRUCTURE PROGRAMS.

(a) PROGRAMS.—In addition to the authorities otherwise provided by law (including section 1261), the Secretary is authorized to establish programs of financial, technical, or administrative assistance to—

(1) enhance the security of critical energy infrastructure in the United States;

(2) develop and disseminate, in cooperation with industry, best practices for critical energy infrastructure assurance; and

(3) protect against, mitigate the effect of, and improve the ability to recover from disruptive incidents affecting critical energy infrastructure.

(b) REQUIREMENTS.—A program established under this section shall—

(1) be undertaken in consultation with the advisory committee established under section 1804;

(2) have available to it the scientific and technical resources of the Department, including resources at a National Laboratory; and

(3) be consistent with any overall Federal plan for national infrastructure security developed by the President or his designee.

SEC. 1804. ADVISORY COMMITTEE ON ENERGY INFRASTRUCTURE SECURITY.

(a) ESTABLISHMENT.—The Secretary shall establish an advisory committee, or utilize an existing advisory committee within the Department, to advise the Secretary on policies and programs related to the security of United States energy infrastructure.

(b) BALANCED MEMBERSHIP.—The Secretary shall ensure that the advisory committee established or utilized under subsection (a) has a membership with an appropriate balance among the various interests related to energy infrastructure security, including—

(1) scientific and technical experts;

(2) industrial managers;

(3) worker representatives;

(4) insurance companies or organizations;

(5) environmental organizations;

(6) representatives of State, local, and tribal governments; and

(7) such other interests as the Secretary may deem appropriate.

(c) EXPENSES.—Members of the advisory committee established or utilized under subsection (a) shall serve without compensation, and shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the committee.

SEC. 1805. BEST PRACTICES AND STANDARDS FOR ENERGY INFRASTRUCTURE SECURITY.

The Secretary, in consultation with the advisory committee under section 1804, shall enter into appropriate arrangements with one or more standard-setting organizations, or similar organizations, to assist the development of industry best practices and standards for security related to protecting critical energy infrastructure.

Subtitle B—Department of the Interior Programs

SEC. 1811. OUTER CONTINENTAL SHELF ENERGY INFRASTRUCTURE SECURITY.

(a) DEFINITIONS.—In this section:

(1) APPROVED STATE PLAN.—The term "approved State plan" means a State plan approved by the Secretary under subsection (c)(3).

(2) COASTLINE.—The term "coastline" has the same meaning as the term "coast line" as defined in subsection 2(c) of the Submerged Lands Act (43 U.S.C. 1301(c)).

(3) CRITICAL OCS ENERGY INFRASTRUCTURE FACILITY.—The term "OCS critical energy infrastructure facility" means—

(A) a facility located in an OCS Production State or in the waters of such State related to the

production of oil or gas on the Outer Continental Shelf; or

(B) a related facility located in an OCS Production State or in the waters of such State that carries out a public service, transportation, or infrastructure activity critical to the operation of an Outer Continental Shelf energy infrastructure facility, as determined by the Secretary.

(4) DISTANCE.—The term "distance" means the minimum great circle distance, measured in statute miles.

(5) LEASED TRACT.—

(A) IN GENERAL.—The term "leased tract" means a tract that—

(i) is subject to a lease under section 6 or 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1335, 1337) for the purpose of drilling for, developing, and producing oil or natural gas resources; and

(ii) consists of a block, a portion of a block, a combination of blocks or portions of blocks, or a combination of portions of blocks, as—

(I) specified in the lease; and

(II) depicted on an outer Continental Shelf official protraction diagram.

(B) EXCLUSION.—The term "leased tract" does not include a tract described in subparagraph (A) that is located in a geographic area subject to a leasing moratorium on January 1, 2001, unless the lease was in production on that date.

(6) OCS POLITICAL SUBDIVISION.—The term "OCS political subdivision" means a county, parish, borough or any equivalent subdivision of an OCS Production State all or part of which subdivision lies within the coastal zone (as defined in section 304(1) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453(1)).

(7) OCS PRODUCTION STATE.—The term "OCS Production State" means the State of—

(A) Alaska;

(B) Alabama;

(C) California;

(D) Florida;

(E) Louisiana;

(F) Mississippi; or

(G) Texas.

(8) PRODUCTION.—The term "production" has the meaning given the term in section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. 1331).

(9) PROGRAM.—The term "program" means the Outer Continental Shelf Energy Infrastructure Security Program established under subsection (b).

(10) QUALIFIED OUTER CONTINENTAL SHELF REVENUES.—The term "qualified Outer Continental Shelf revenues" means all amounts received by the United States from each leased tract or portion of a leased tract lying seaward of the zone defined and governed by section 8(g) of the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.), or lying within such zone but to which section 8(g) does not apply, the geographic center of which lies within a distance of 200 miles from any part of the coastline of any State, including bonus bids, rents, royalties (including payments for royalties taken in kind and sold), net profit share payments, and related late payment interest. Such term does not include any revenues from a leased tract or portion of a leased tract that is included within any area of the Outer Continental Shelf where a moratorium on new leasing was in effect as of January 1, 2001, unless the lease was

issued prior to the establishment of the moratorium and was in production on January 1, 2001.

(11) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(12) STATE PLAN.—The term "State plan" means a State plan described in subsection (b).

(b) ESTABLISHMENT.—The Secretary shall establish a program, to be known as the "Outer Continental Shelf Energy Infrastructure Security Program", under which the Secretary shall provide funds to OCS Production States to implement approved State plans to provide security against hostile and natural threats to critical OCS energy infrastructure facilities and support of any necessary public service or transportation activities that are needed to maintain the safety and operation of critical energy infrastructure activities. For purposes of this program, restoration of any coastal wetland shall be considered to be an activity that secures critical OCS energy infrastructure facilities from a natural threat.

(c) STATE PLANS.—

(1) INITIAL PLAN.—Not later than 180 days after the date of enactment of this Act, to be eligible to receive funds under the program, the Governor of an OCS Production State shall submit to the Secretary a plan to provide security against hostile and

natural threats to critical energy infrastructure facilities in the OCS Production State and to support any of the necessary public service or transportation activities that are needed to maintain the safety and operation of critical energy infrastructure facilities. Such plan shall include—

(A) the name of the State agency that will have the authority to represent and act for the State in dealing with the Secretary for purposes of this section;

(B) a program for the implementation of the plan which describes how the amounts provided under this section will be used;

(C) a contact for each OCS political subdivision and description of how such political subdivisions will use amounts provided under this section, including a certification by the Governor that such uses are consistent with the requirements of this section; and

(D) measures for taking into account other relevant Federal resources and programs.

(2) ANNUAL REVIEWS.—Not later than 1 year after the date of submission of the plan and annually thereafter, the Governor of an OCS Production State shall—

(A) review the approved State plan; and

(B) submit to the Secretary any revised State plan resulting from the review.

(3) APPROVAL OF PLANS.—

(A) IN GENERAL.—In consultation with appropriate Federal security officials and the Secretaries of Commerce and Energy, the Secretary shall—

(i) approve each State plan; or

(ii) recommend changes to the State plan.

(B) RESUBMISSION OF STATE PLANS.—If the Secretary recommends changes to a State plan under subparagraph (A)(ii), the Governor of the OCS Production State may resubmit a revised State plan to the Secretary for approval.

(4) AVAILABILITY OF PLANS.—The Secretary shall provide to Congress a copy of each approved State plan.

(5) CONSULTATION AND PUBLIC COMMENT.—

(A) CONSULTATION.—The Governor of an OCS Production State shall develop the State plan in consultation with Federal, State, and local law enforcement and public safety officials,

industry, Indian tribes, the scientific community, and other persons as appropriate.

(B) PUBLIC COMMENT.—The Governor of an OCS Production State may solicit public comments on the State plan to the extent that the Governor determines to be appropriate.

(d) ALLOCATION OF AMOUNTS BY THE SECRETARY.—The Secretary shall allocate the amounts made available for the purposes of carrying out the program provided for by this section among OCS Production States as follows:

(1) twenty-five percent of the amounts shall be divided equally among OCS Production States.

(2) seventy-five percent of the amounts shall be divided among OCS Production States on the basis of the proximity of each OCS Production State to offshore locations at which oil and gas are being produced.

(e) CALCULATION.—The amount for each OCS Production State under paragraph (d)(2) shall be calculated based on the ratio of qualified OCS revenues generated off the coastline of the OCS Production State to the qualified OCS revenues generated off the coastlines of all OCS Production States for the prior 5-year period. Where there is more than one OCS Production State within 200 miles of a leased tract, the amount of each OCS Production State's payment

under paragraph (d)(2) for such leased tract shall be inversely proportional to the distance between the nearest point on the coastline of such State and the geographic center of each leased tract or portion of the leased tract (to the nearest whole mile) that is within 200 miles of that coastline, as determined by the Secretary. A leased tract or portion of a leased tract shall be excluded if the tract or portion is located in a geographic area where a moratorium on new leasing was in effect on January 1, 2001, unless the lease was issued prior to the establishment of the moratorium and was in production on January 1, 2001.

(f) PAYMENTS TO OCS POLITICAL SUBDIVISIONS.—Thirty-five percent of each OCS Production State's allocable share as determined under subsection (e) shall be paid directly to the OCS political subdivisions by the Secretary based on the following formula:

(1) twenty-five percent shall be allocated based on the ratio of such OCS political subdivision's population to the population of all OCS political subdivisions in the OCS Production State.

(2) twenty-five percent shall be allocated based on the ratio of such OCS political subdivision's coastline miles to the coastline miles of all OCS political subdivisions in the OCS Production State. For purposes of this subsection, those OCS political subdivi-

sions without coastlines shall be considered to have a coastline that is the average length of the coastlines of all political subdivisions in the State.

(3) fifty percent shall be allocated based on the relative distance of such OCS political subdivision from any leased tract used to calculate that OCS Production State's allocation using ratios that are inversely proportional to the distance between the point in the coastal political subdivision closest to the geographic center of each leased tract or portion, as determined by the Secretary. For purposes of the calculations under this subparagraph, a leased tract or portion of a leased tract shall be excluded if the leased tract or portion is located in a geographic area where a moratorium on new leasing was in effect on January 1, 2001, unless the lease was issued prior to the establishment of the moratorium and was in production on January 1, 2001.

(g) FAILURE TO HAVE PLAN APPROVED.—Any amount allocated to an OCS Production State or OCS political subdivision but not disbursed because of a failure to have an approved Plan under this section shall be allocated equally by the Secretary among all other OCS Production States in a manner consistent with this subsection except that the Secretary shall hold in escrow such amount until

the final resolution of any appeal regarding the disapproval of a plan submitted under this section. The Secretary may waive the provisions of this paragraph and hold an OCS Production State's allocable share in escrow if the Secretary determines that such State is making a good faith effort to develop and submit, or update, a Plan.

(h) USE OF AMOUNTS ALLOCATED BY THE SECRETARY.—

(1) IN GENERAL.—Amounts allocated by the Secretary under subsection (d) may be used only in accordance with a plan approved pursuant to subsection (c) for—

(A) activities to secure critical OCS energy infrastructure facilities from human or natural threats; and

(B) support of any necessary public service or transportation activities that are needed to maintain the safety and operation of critical OCS energy infrastructure facilities.

(2) RESTORATION OF COASTAL WETLAND.—For the purpose of subparagraph (1)(A), restoration of any coastal wetland shall be considered to be an activity that secures critical OCS energy infrastructure facilities from a natural threat.

(i) FAILURE TO HAVE USE.—Any amount allocated to an OCS political subdivision but not disbursed because of a failure to have a qualifying use as described in subsection (h) shall be allocated by the Secretary to the OCS Production State in which the OCS political subdivision is located except that the Secretary shall hold in escrow such amount until the final resolution of any appeal regarding the use of the funds.

(j) COMPLIANCE WITH AUTHORIZED USES.—If the Secretary determines that any expenditure made by an OCS Production State or an OCS political subdivision is not consistent with the uses authorized in subsection (h), the Secretary shall not disburse any further amounts under this section to that OCS Production State or OCS political subdivision until the amounts used for the inconsistent expenditure have been repaid or obligated for authorized uses.

(k) RULEMAKING.—The Secretary may promulgate such rules and regulations as may be necessary to carry out the purposes of this section, including rules and regulations setting forth an appropriate process for appeals.

(l) AUTHORIZATION OF APPROPRIATIONS.—There are hereby authorized to be appropriated $450,000,000 for each of the fiscal years 2003 through 2008 to carry out the purposes of this section.

DIVISION H—ENERGY TAX INCENTIVES

SEC. 1900. SHORT TITLE; ETC.

(a) SHORT TITLE.—This division may be cited as the "Energy Tax Incentives Act of 2002".

(b) AMENDMENT OF 1986 CODE.—Except as otherwise expressly provided, whenever in this division an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.

TITLE XIX—EXTENSION AND MODIFICATION OF RENEWABLE ELECTRICITY PRODUCTION TAX CREDIT

SEC. 1901. THREE-YEAR EXTENSION OF CREDIT FOR PRODUCING ELECTRICITY FROM WIND AND POULTRY WASTE.

(a) IN GENERAL.—Subparagraphs (A) and (C) of section 45(c)(3) (relating to qualified facility), as amended by section 603(a) of the Job Creation and Worker Assistance Act of 2002, are each amended by striking "January 1, 2004" and inserting "January 1, 2007".

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to electricity sold after the date of the

enactment of this Act, in taxable years ending after such date.

SEC. 1902. CREDIT FOR ELECTRICITY PRODUCED FROM BIOMASS.

(a) EXTENSION AND MODIFICATION OF PLACED-IN-SERVICE RULES.—Paragraph (3) of section 45(c) is amended—

(1) by striking subparagraph (B) and inserting the following new subparagraph:

"(B) CLOSED-LOOP BIOMASS FACILITY.—

"(i) IN GENERAL.—In the case of a facility using closed-loop biomass to produce electricity, the term 'qualified facility' means any facility—

"(I) owned by the taxpayer which is originally placed in service after December 31, 1992, and before January 1, 2007, or

"(II) owned by the taxpayer which is originally placed in service before January 1, 1993, and modified to use closed-loop biomass to co-fire with coal before January 1, 2007, as approved under the Biomass Power for Rural Development Programs or under

a pilot project of the Commodity Credit Corporation as described in 65 Fed. Reg. 63052.

"(ii) SPECIAL RULES.—In the case of a qualified facility described in clause (i)(II)—

"(I) the 10-year period referred to in subsection (a) shall be treated as beginning no earlier than the date of the enactment of this subclause, and

"(II) if the owner of such facility is not the producer of the electricity, the person eligible for the credit allowable under subsection (a) is the lessee or the operator of such facility.", and

(2) by adding at the end the following new subparagraph:

"(D) BIOMASS FACILITY.—

"(i) IN GENERAL.—In the case of a facility using biomass (other than closed-loop biomass) to produce electricity, the term 'qualified facility' means any facility owned by the taxpayer which is originally placed in service before January 1, 2005.

"(ii) SPECIAL RULE FOR POSTEFFECTIVE DATE FACILITIES.—In the case of any facility described in clause (i) which is placed in service after the date of the enactment of this clause, the 3-year period beginning on the date the facility is originally placed in service shall be substituted for the 10-year period in subsection (a)(2)(A)(ii).

"(iii) SPECIAL RULES FOR PREEFFECTIVE DATE FACILITIES.—In the case of any facility described in clause (i) which is placed in service before the date of the enactment of this clause—

"(I) subsection (a)(1) shall be applied by substituting '1.0 cents' for '1.5 cents', and

"(II) the 3-year period beginning after December 31, 2002, shall be substituted for the 10-year period in subsection (a)(2)(A)(ii).

"(iv) CREDIT ELIGIBILITY.—In the case of any facility described in clause (i), if the owner of such facility is not the producer of the electricity, the person eligible

for the credit allowable under subsection (a) is the lessee or the operator of such facility.".

(b) DEFINITION OF BIOMASS.—

(1) IN GENERAL.—Section 45(c)(1) (defining qualified energy resources) is amended—

(A) by striking "and" at the end of subparagraph (B),

(B) by striking the period at the end of subparagraph (C) and inserting ", and", and

(C) by adding at the end the following new subparagraph:

"(D) biomass (other than closed-loop biomass).".

(2) BIOMASS DEFINED.—Section 45(c) (relating to definitions) is amended by adding at the end the following new paragraph:

"(5) BIOMASS.—The term 'biomass' means any solid, nonhazardous, cellulosic waste material which is segregated from other waste materials and which is derived from—

"(A) any of the following forest-related resources: mill residues, precommercial thinnings, slash, and brush, but not including old-growth timber (other than old-growth timber which has

been permitted or contracted for removal by any appropriate Federal authority through the National Environmental Policy Act or by any appropriate State authority),

"(B) solid wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste (garbage), gas derived from the biodegradation of solid waste, or paper that is commonly recycled, or

"(C) agriculture sources, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues.".

(c) COORDINATION WITH SECTION 29.—Section 45(c) (relating to definitions) is amended by adding at the end the following new paragraph:

"(6) COORDINATION WITH SECTION 29.—The term 'qualified facility' shall not include any facility the production from which is taken into account in determining any credit under section 29 for the taxable year or any prior taxable year.".

(d) CLERICAL AMENDMENTS.—

(1) The heading for subsection (c) of section 45 is amended by inserting "AND SPECIAL RULES" after "DEFINITIONS".

(2) The heading for subsection (d) of section 45 is amended by inserting "ADDITIONAL" before "DEFINITIONS".

(e) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to electricity sold after the date of the enactment of this Act.

(2) CERTAIN BIOMASS FACILITIES.—With respect to any facility described in section 45(c)(3)(D)(i) of the Internal Revenue Code of 1986, as added by this section, which is placed in service before the date of the enactment of this Act, the amendments made by this section shall apply to electricity sold after December 31, 2002.

SEC. 1903. CREDIT FOR ELECTRICITY PRODUCED FROM SWINE AND BOVINE WASTE NUTRIENTS, GEOTHERMAL ENERGY, AND SOLAR ENERGY.

(a) EXPANSION OF QUALIFIED ENERGY RESOURCES.—

(1) IN GENERAL.—Section 45(c)(1) (defining qualified energy resources), as amended by this Act,

is amended by striking "and" at the end of subparagraph (C), by striking the period at the end of subparagraph (D) and inserting a comma, and by adding at the end the following new subparagraphs:

"(E) swine and bovine waste nutrients,

"(F) geothermal energy, and

"(G) solar energy.".

(2) DEFINITIONS.—Section 45(c) (relating to definitions and special rules), as amended by this Act, is amended by redesignating paragraph (6) as paragraph (8) and by inserting after paragraph (5) the following new paragraphs:

"(6) SWINE AND BOVINE WASTE NUTRIENTS.—The term 'swine and bovine waste nutrients' means swine and bovine manure and litter, including bedding material for the disposition of manure.

"(7) GEOTHERMAL ENERGY.—The term 'geothermal energy' means energy derived from a geothermal deposit (within the meaning of section 613(e)(2)).".

(b) EXTENSION AND MODIFICATION OF PLACED-IN-SERVICE RULES.—Section 45(c)(3) (relating to qualified facility), as amended by this Act, is amended by adding at the end the following new subparagraphs:

"(E) SWINE AND BOVINE WASTE NUTRIENTS FACILITY.—In the case of a facility using swine and bovine waste nutrients to produce electricity, the term 'qualified facility' means any facility owned by the taxpayer which is originally placed in service after the date of the enactment of this subparagraph and before January 1, 2007.

"(F) GEOTHERMAL OR SOLAR ENERGY FACILITY.—

"(i) IN GENERAL.—In the case of a facility using geothermal or solar energy to produce electricity, the term 'qualified facility' means any facility owned by the taxpayer which is originally placed in service after the date of the enactment of this clause and before January 1, 2007.

"(ii) SPECIAL RULE.—In the case of any facility described in clause (i), the 5-year period beginning on the date the facility was originally placed in service shall be substituted for the 10-year period in subsection (a)(2)(A)(ii).".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to electricity sold after the date of the

enactment of this Act, in taxable years ending after such date.

SEC. 1904. TREATMENT OF PERSONS NOT ABLE TO USE ENTIRE CREDIT.

(a) IN GENERAL.—Section 45(d) (relating to additional definitions and special rules), as amended by this Act, is amended by adding at the end the following new paragraph:

"(8) TREATMENT OF PERSONS NOT ABLE TO USE ENTIRE CREDIT.—

"(A) ALLOWANCE OF CREDIT.—

"(i) IN GENERAL.—Except as otherwise provided in this subsection—

"(I) any credit allowable under subsection (a) with respect to a qualified facility owned by a person described in clause (ii) may be transferred or used as provided in this paragraph, and

"(II) the determination as to whether the credit is allowable shall be made without regard to the tax-exempt status of the person.

"(ii) PERSONS DESCRIBED.—A person is described in this clause if the person is—

"(I) an organization described in section 501(c)(12)(C) and exempt from tax under section 501(a),

"(II) an organization described in section 1381(a)(2)(C),

"(III) a public utility (as defined in section 136(c)(2)(B)), which is exempt from income tax under this subtitle,

"(IV) any State or political subdivision thereof, the District of Columbia, any possession of the United States, or any agency or instrumentality of any of the foregoing, or

"(V) any Indian tribal government (within the meaning of section 7871) or any agency or instrumentality thereof.

"(B) TRANSFER OF CREDIT.—

"(i) IN GENERAL.—A person described in subparagraph (A)(ii) may transfer any credit to which subparagraph (A)(i) applies through an assignment to any other person not described in subparagraph (A)(ii). Such

transfer may be revoked only with the consent of the Secretary.

"(ii) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to ensure that any credit described in clause (i) is claimed once and not reassigned by such other person.

"(iii) TRANSFER PROCEEDS TREATED AS ARISING FROM ESSENTIAL GOVERNMENT FUNCTION.—Any proceeds derived by a person described in subclause (III), (IV), or (V) of subparagraph (A)(ii) from the transfer of any credit under clause (i) shall be treated as arising from the exercise of an essential government function.

"(C) USE OF CREDIT AS AN OFFSET.—Notwithstanding any other provision of law, in the case of a person described in subclause (I), (II), or (V) of subparagraph (A)(ii), any credit to which subparagraph (A)(i) applies may be applied by such person, to the extent provided by the Secretary of Agriculture, as a prepayment of any loan, debt, or other obligation the entity has incurred under subchapter I of chapter 31 of title 7 of the Rural Electrification Act of 1936 (7

U.S.C. 901 et seq.), as in effect on the date of the enactment of the Energy Tax Incentives Act of 2002.

"(D) CREDIT NOT INCOME.—Any transfer under subparagraph (B) or use under subparagraph (C) of any credit to which subparagraph (A)(i) applies shall not be treated as income for purposes of section 501(c)(12).

"(E) TREATMENT OF UNRELATED PERSONS.—For purposes of subsection (a)(2)(B), sales among and between persons described in subparagraph (A)(ii) shall be treated as sales between unrelated parties.".

(b) CREDITS NOT REDUCED BY TAX-EXEMPT BONDS OR CERTAIN OTHER SUBSIDIES.—Section 45(b)(3) (relating to credit reduced for grants, tax-exempt bonds, subsidized energy financing, and other credits) is amended—

(1) by striking clause (ii),

(2) by redesignating clauses (iii) and (iv) as clauses (ii) and (iii),

(3) by inserting "(other than any loan, debt, or other obligation incurred under subchapter I of chapter 31 of title 7 of the Rural Electrification Act of 1936 (7 U.S.C. 901 et seq.), as in effect on the date of the enactment of the Energy Tax Incentives Act of

2002)" after "project" in clause (ii) (as so redesignated),

(4) by adding at the end the following new sentence: "This paragraph shall not apply with respect to any facility described in subsection (c)(3)(B)(i)(II).", and

(5) by striking "TAX-EXEMPT BONDS," in the heading and inserting "CERTAIN".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to electricity sold after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 1905. CREDIT FOR ELECTRICITY PRODUCED FROM SMALL IRRIGATION POWER.

(a) IN GENERAL.—Section 45(c)(1) (defining qualified energy resources), as amended by this Act, is amended by striking "and" at the end of subparagraph (F), by striking the period at the end of subparagraph (G) and inserting ", and", and by adding at the end the following new subparagraph:

"(H) small irrigation power.".

(b) QUALIFIED FACILITY.—Section 45(c)(3) (relating to qualified facility), as amended by this Act, is amended by adding at the end the following new subparagraph:

"(G) SMALL IRRIGATION POWER FACILITY.—In the case of a facility using small irrigation power to produce electricity, the term 'qualified facility' means any facility owned by the taxpayer which is originally placed in service after date of the enactment of this subparagraph and before January 1, 2007.".

(c) DEFINITION.—Section 45(c), as amended by this Act, is amended by redesignating paragraph (8) as paragraph (9) and by inserting after paragraph (7) the following new paragraph:

"(8) SMALL IRRIGATION POWER.—The term 'small irrigation power' means power—

"(A) generated without any dam or impoundment of water through an irrigation system canal or ditch, and

"(B) the installed capacity of which is less than 5 megawatts.".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to electricity sold after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 1906. CREDIT FOR ELECTRICITY PRODUCED FROM MUNICIPAL BIOSOLIDS AND RECYCLED SLUDGE.

(a) IN GENERAL.—Section 45(c)(1) (defining qualified energy resources), as amended by this Act, is amended by striking "and" at the end of subparagraph (F), by striking the period at the end of subparagraph (G), and by adding at the end the following new subparagraphs:

"(H) municipal biosolids, and

"(I) recycled sludge.".

(b) QUALIFIED FACILITIES.—Section 45(c)(3) (relating to qualified facility), as amended by this Act, is amended by adding at the end the following new subparagraphs:

"(G) MUNICIPAL BIOSOLIDS FACILITY.—In the case of a facility using municipal biosolids to produce electricity, the term 'qualified facility' means any facility owned by the taxpayer which is originally placed in service after December 31, 2001, and before January 1, 2007.

"(H) RECYCLED SLUDGE FACILITY.—

"(i) IN GENERAL.—In the case of a facility using recycled sludge to produce electricity, the term 'qualified facility' means any facility owned by the taxpayer which is originally placed in service before January 1, 2007.

"(ii) SPECIAL RULE.—In the case of a qualified facility described in clause (i), the 10-year period referred to in subsection (a) shall be treated as beginning no earlier than the date of the enactment of this subparagraph.".

(c) DEFINITIONS.—Section 45(c), as amended by this Act, is amended by redesignating paragraph (8) as paragraph (10) and by inserting after paragraph (7) the following new paragraphs:

"(8) MUNICIPAL BIOSOLIDS.—The term 'municipal biosolids' means the residue or solids removed by a municipal wastewater treatment facility.

"(9) RECYCLED SLUDGE.—

"(A) IN GENERAL.—The term 'recycled sludge' means the recycled residue byproduct created in the treatment of commercial, industrial, municipal, or navigational wastewater.

"(B) RECYCLED.—The term 'recycled' means the processing of residue into a marketable product, but does not include incineration for the purpose of volume reduction.".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to electricity sold after the date of the

enactment of this Act, in taxable years ending after such date.

TITLE XX—ALTERNATIVE MOTOR VEHICLES AND FUELS INCENTIVES

SEC. 2001. ALTERNATIVE MOTOR VEHICLE CREDIT.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to foreign tax credit, etc.) is amended by adding at the end the following new section:

"SEC. 30B. ALTERNATIVE MOTOR VEHICLE CREDIT.

"(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of—

"(1) the new qualified fuel cell motor vehicle credit determined under subsection (b),

"(2) the new qualified hybrid motor vehicle credit determined under subsection (c), and

"(3) the new qualified alternative fuel motor vehicle credit determined under subsection (d).

"(b) NEW QUALIFIED FUEL CELL MOTOR VEHICLE CREDIT.—

"(1) IN GENERAL.—For purposes of subsection (a), the new qualified fuel cell motor vehicle credit determined under this subsection with respect to a new

qualified fuel cell motor vehicle placed in service by the taxpayer during the taxable year is—

"(A) $4,000, if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

"(B) $10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

"(C) $20,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

"(D) $40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

"(2) INCREASE FOR FUEL EFFICIENCY.—

"(A) IN GENERAL.—The amount determined under paragraph (1)(A) with respect to a new qualified fuel cell motor vehicle which is a passenger automobile or light truck shall be increased by—

"(i) $1,000, if such vehicle achieves at least 150 percent but less than 175 percent of the 2000 model year city fuel economy,

"(ii) $1,500, if such vehicle achieves at least 175 percent but less than 200 percent of the 2000 model year city fuel economy,

"(iii) $2,000, if such vehicle achieves at least 200 percent but less than 225 percent of the 2000 model year city fuel economy,

"(iv) $2,500, if such vehicle achieves at least 225 percent but less than 250 percent of the 2000 model year city fuel economy,

"(v) $3,000, if such vehicle achieves at least 250 percent but less than 275 percent of the 2000 model year city fuel economy,

"(vi) $3,500, if such vehicle achieves at least 275 percent but less than 300 percent of the 2000 model year city fuel economy, and

"(vii) $4,000, if such vehicle achieves at least 300 percent of the 2000 model year city fuel economy.

"(B) 2000 MODEL YEAR CITY FUEL ECONOMY.—For purposes of subparagraph (A), the 2000 model year city fuel economy with respect to a vehicle shall be determined in accordance with the following tables:

"(i) In the case of a passenger automobile:

"If vehicle inertia weight class is:	***The 2000 model year city fuel economy is:***
1,500 or 1,750 lbs	*43.7 mpg*
2,000 lbs	*38.3 mpg*

"If vehicle inertia weight class is:	*The 2000 model year city fuel economy is:*
2,250 lbs	*34.1 mpg*
2,500 lbs	*30.7 mpg*
2,750 lbs	*27.9 mpg*
3,000 lbs	*25.6 mpg*
3,500 lbs	*22.0 mpg*
4,000 lbs	*19.3 mpg*
4,500 lbs	*17.2 mpg*
5,000 lbs	*15.5 mpg*
5,500 lbs	*14.1 mpg*
6,000 lbs	*12.9 mpg*
6,500 lbs	*11.9 mpg*
7,000 to 8,500 lbs	*11.1 mpg.*

1 *"(ii) In the case of a light truck:*

"If vehicle inertia weight class is:	*The 2000 model year city fuel economy is:*
1,500 or 1,750 lbs	*37.6 mpg*
2,000 lbs	*33.7 mpg*
2,250 lbs	*30.6 mpg*
2,500 lbs	*28.0 mpg*
2,750 lbs	*25.9 mpg*
3,000 lbs	*24.1 mpg*
3,500 lbs	*21.3 mpg*
4,000 lbs	*19.0 mpg*
4,500 lbs	*17.3 mpg*
5,000 lbs	*15.8 mpg*
5,500 lbs	*14.6 mpg*
6,000 lbs	*13.6 mpg*
6,500 lbs	*12.8 mpg*
7,000 to 8,500 lbs	*12.0 mpg.*

2 *"(C) VEHICLE INERTIA WEIGHT CLASS.—*
3 *For purposes of subparagraph (B), the term 've-*
4 *hicle inertia weight class' has the same meaning*
5 *as when defined in regulations prescribed by the*
6 *Administrator of the Environmental Protection*
7 *Agency for purposes of the administration of title*
8 *II of the Clean Air Act (42 U.S.C. 7521 et seq.).*
9 *"(3) NEW QUALIFIED FUEL CELL MOTOR VEHI-*
10 *CLE.—For purposes of this subsection, the term 'new*

qualified fuel cell motor vehicle' means a motor vehicle—

"(A) which is propelled by power derived from one or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form and may or may not require reformation prior to use,

"(B) which, in the case of a passenger automobile or light truck—

"(i) for 2002 and later model vehicles, has received a certificate of conformity under the Clean Air Act and meets or exceeds the equivalent qualifying California low emission vehicle standard under section 243(e)(2) of the Clean Air Act for that make and model year, and

"(ii) for 2004 and later model vehicles, has received a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle,

"(C) the original use of which commences with the taxpayer,

"(D) which is acquired for use or lease by the taxpayer and not for resale, and

"(E) which is made by a manufacturer.

"(c) NEW QUALIFIED HYBRID MOTOR VEHICLE CREDIT.—

"(1) IN GENERAL.—For purposes of subsection (a), the new qualified hybrid motor vehicle credit determined under this subsection with respect to a new qualified hybrid motor vehicle placed in service by the taxpayer during the taxable year is the credit amount determined under paragraph (2).

"(2) CREDIT AMOUNT.—

"(A) IN GENERAL.—The credit amount determined under this paragraph shall be determined in accordance with the following tables:

"(i) In the case of a new qualified hybrid motor vehicle which is a passenger automobile or light truck and which provides the following percentage of the maximum available power:

"If percentage of the maximum available power is:	***The credit amount is:***
At least 5 percent but less than 10 percent	*$250*
At least 10 percent but less than 20 percent	*$500*
At least 20 percent but less than 30 percent	*$750*
At least 30 percent	*$1,000.*

"(ii) In the case of a new qualified hybrid motor vehicle which is a heavy duty hybrid motor vehicle and which provides the following percentage of the maximum available power:

"(I) If such vehicle has a gross vehicle weight rating of not more than 14,000 pounds:

"If percentage of the maximum available power is:	***The credit amount is:***
At least 20 percent but less than 30 percent	*$1,000*
At least 30 percent but less than 40 percent	*$1,750*
At least 40 percent but less than 50 percent	*$2,000*
At least 50 percent but less than 60 percent	*$2,250*
At least 60 percent	*$2,500.*

"(II) If such vehicle has a gross vehicle weight rating of more than 14,000 but not more than 26,000 pounds:

"If percentage of the maximum available power is:	***The credit amount is:***
At least 20 percent but less than 30 percent	*$4,000*
At least 30 percent but less than 40 percent	*$4,500*
At least 40 percent but less than 50 percent	*$5,000*
At least 50 percent but less than 60 percent	*$5,500*
At least 60 percent	*$6,000.*

"(III) If such vehicle has a gross vehicle weight rating of more than 26,000 pounds:

"If percentage of the maximum available power is:	***The credit amount is:***
At least 20 percent but less than 30 percent	*$6,000*
At least 30 percent but less than 40 percent	*$7,000*
At least 40 percent but less than 50 percent	*$8,000*
At least 50 percent but less than 60 percent	*$9,000*
At least 60 percent	*$10,000.*

"(B) INCREASE FOR FUEL EFFICIENCY.—

"(i) AMOUNT.—The amount determined under subparagraph (A)(i) with respect to a new qualified hybrid motor vehicle which is a passenger automobile or light truck shall be increased by—

"(I) $500, if such vehicle achieves at least 125 percent but less than 150 percent of the 2000 model year city fuel economy,

"(II) $1,000, if such vehicle achieves at least 150 percent but less than 175 percent of the 2000 model year city fuel economy,

"(III) $1,500, if such vehicle achieves at least 175 percent but less than 200 percent of the 2000 model year city fuel economy,

"(IV) $2,000, if such vehicle achieves at least 200 percent but less than 225 percent of the 2000 model year city fuel economy,

"(V) $2,500, if such vehicle achieves at least 225 percent but less

than 250 percent of the 2000 model year city fuel economy, and

"(VI) $3,000, if such vehicle achieves at least 250 percent of the 2000 model year city fuel economy.

"(ii) 2000 MODEL YEAR CITY FUEL ECONOMY.—For purposes of clause (i), the 2000 model year city fuel economy with respect to a vehicle shall be determined using the tables provided in subsection (b)(2)(B) with respect to such vehicle.

"(C) INCREASE FOR ACCELERATED EMISSIONS PERFORMANCE.—The amount determined under subparagraph (A)(ii) with respect to an applicable heavy duty hybrid motor vehicle shall be increased by the increased credit amount determined in accordance with the following tables:

"(i) In the case of a vehicle which has a gross vehicle weight rating of not more than 14,000 pounds:

"If the model year is:	***The increased credit amount is:***
2002	*$3,500*
2003	*$3,000*
2004	*$2,500*
2005	*$2,000*
2006	*$1,500.*

"(ii) In the case of a vehicle which has a gross vehicle weight rating of more than

14,000 pounds but not more than 26,000 pounds:

"If the model year is:	***The increased credit amount is:***
2002	*$9,000*
2003	*$7,750*
2004	*$6,500*
2005	*$5,250*
2006	*$4,000.*

"(iii) In the case of a vehicle which has a gross vehicle weight rating of more than 26,000 pounds:

"If the model year is:	***The increased credit amount is:***
2002	*$14,000*
2003	*$12,000*
2004	*$10,000*
2005	*$8,000*
2006	*$6,000.*

"(D) DEFINITIONS.—

"(i) APPLICABLE HEAVY DUTY HYBRID MOTOR VEHICLE.—For purposes of subparagraph (C), the term 'applicable heavy duty hybrid motor vehicle' means a heavy duty hybrid motor vehicle which is powered by an internal combustion or heat engine which is certified as meeting the emission standards set in the regulations prescribed by the Administrator of the Environmental Protection Agency for 2007 and later model year diesel heavy duty engines, or for 2008 and later model year ottocycle heavy duty engines, as applicable.

"(ii) HEAVY DUTY HYBRID MOTOR VEHICLE.—For purposes of this paragraph, the term 'heavy duty hybrid motor vehicle' means a new qualified hybrid motor vehicle which has a gross vehicle weight rating of more than 10,000 pounds and draws propulsion energy from both of the following onboard sources of stored energy:

"(I) An internal combustion or heat engine using consumable fuel which, for 2002 and later model vehicles, has received a certificate of conformity under the Clean Air Act and meets or exceeds a level of not greater than 3.0 grams per brake horsepower–hour of oxides of nitrogen and 0.01 per brake horsepower–hour of particulate matter.

"(II) A rechargeable energy storage system.

"(iii) MAXIMUM AVAILABLE POWER.—

"(I) PASSENGER AUTOMOBILE OR LIGHT TRUCK.—For purposes of subparagraph (A)(i), the term 'maximum available power' means the maximum

power available from the rechargeable energy storage system, during a standard 10 second pulse power or equivalent test, divided by such maximum power and the SAE net power of the heat engine.

"(II) HEAVY DUTY HYBRID MOTOR VEHICLE.—For purposes of subparagraph (A)(ii), the term 'maximum available power' means the maximum power available from the rechargeable energy storage system, during a standard 10 second pulse power or equivalent test, divided by the vehicle's total traction power. The term 'total traction power' means the sum of the peak power from the rechargeable energy storage system and the heat engine peak power of the vehicle, except that if such storage system is the sole means by which the vehicle can be driven, the total traction power is the peak power of such storage system.

"(3) NEW QUALIFIED HYBRID MOTOR VEHICLE.—For purposes of this subsection, the term 'new

qualified hybrid motor vehicle' means a motor vehicle—

"(A) which draws propulsion energy from onboard sources of stored energy which are both—

"(i) an internal combustion or heat engine using combustible fuel, and

"(ii) a rechargeable energy storage system,

"(B) which, in the case of a passenger automobile or light truck—

"(i) for 2002 and later model vehicles, has received a certificate of conformity under the Clean Air Act and meets or exceeds the equivalent qualifying California low emission vehicle standard under section 243(e)(2) of the Clean Air Act for that make and model year, and

"(ii) for 2004 and later model vehicles, has received a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of

the Clean Air Act for that make and model year vehicle,

"(C) the original use of which commences with the taxpayer,

"(D) which is acquired for use or lease by the taxpayer and not for resale, and

"(E) which is made by a manufacturer.

"(d) NEW QUALIFIED ALTERNATIVE FUEL MOTOR VEHICLE CREDIT.—

"(1) ALLOWANCE OF CREDIT.—Except as provided in paragraph (5), the credit determined under this subsection is an amount equal to the applicable percentage of the incremental cost of any new qualified alternative fuel motor vehicle placed in service by the taxpayer during the taxable year.

"(2) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the applicable percentage with respect to any new qualified alternative fuel motor vehicle is—

"(A) 40 percent, plus

"(B) 30 percent, if such vehicle—

"(i) has received a certificate of conformity under the Clean Air Act and meets or exceeds the most stringent standard available for certification under the Clean

Air Act for that make and model year vehicle (other than a zero emission standard), or

"(ii) has received an order certifying the vehicle as meeting the same requirements as vehicles which may be sold or leased in California and meets or exceeds the most stringent standard available for certification under the State laws of California (enacted in accordance with a waiver granted under section 209(b) of the Clean Air Act) for that make and model year vehicle (other than a zero emission standard).

"(3) INCREMENTAL COST.—For purposes of this subsection, the incremental cost of any new qualified alternative fuel motor vehicle is equal to the amount of the excess of the manufacturer's suggested retail price for such vehicle over such price for a gasoline or diesel fuel motor vehicle of the same model, to the extent such amount does not exceed—

"(A) $5,000, if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

"(B) $10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

"(C) $25,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

"(D) $40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

"(4) QUALIFIED ALTERNATIVE FUEL MOTOR VEHICLE DEFINED.—For purposes of this subsection—

"(A) IN GENERAL.—The term 'qualified alternative fuel motor vehicle' means any motor vehicle—

"(i) which is only capable of operating on an alternative fuel,

"(ii) the original use of which commences with the taxpayer,

"(iii) which is acquired by the taxpayer for use or lease, but not for resale, and

"(iv) which is made by a manufacturer.

"(B) ALTERNATIVE FUEL.—The term 'alternative fuel' means compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid at least 85 percent of the volume of which consists of methanol.

"(5) CREDIT FOR MIXED-FUEL VEHICLES.—

"(A) IN GENERAL.—In the case of a mixed-fuel vehicle placed in service by the taxpayer during the taxable year, the credit determined under this subsection is an amount equal to—

"(i) in the case of a 75/25 mixed-fuel vehicle, 70 percent of the credit which would have been allowed under this subsection if such vehicle was a qualified alternative fuel motor vehicle, and

"(ii) in the case of a 90/10 mixed-fuel vehicle, 90 percent of the credit which would have been allowed under this subsection if such vehicle was a qualified alternative fuel motor vehicle.

"(B) MIXED-FUEL VEHICLE.—For purposes of this subsection, the term 'mixed-fuel vehicle' means any motor vehicle described in subparagraph (C) or (D) of paragraph (3), which—

"(i) is certified by the manufacturer as being able to perform efficiently in normal operation on a combination of an alternative fuel and a petroleum-based fuel,

"(ii) either—

"(I) has received a certificate of conformity under the Clean Air Act, or

"(II) has received an order certifying the vehicle as meeting the same requirements as vehicles which may be sold or leased in California and meets or exceeds the low emission vehicle standard under section 88.105-94 of title 40, Code of Federal Regulations, for that make and model year vehicle,

"(iii) the original use of which commences with the taxpayer,

"(iv) which is acquired by the taxpayer for use or lease, but not for resale, and

"(v) which is made by a manufacturer.

"(C) 75/25 MIXED-FUEL VEHICLE.—For purposes of this subsection, the term '75/25 mixed-fuel vehicle' means a mixed-fuel vehicle which operates using at least 75 percent alternative fuel and not more than 25 percent petroleum-based fuel.

"(D) 90/10 MIXED-FUEL VEHICLE.—For purposes of this subsection, the term '90/10 mixed-fuel vehicle' means a mixed-fuel vehicle which operates using at least 90 percent alter-

native fuel and not more than 10 percent petroleum-based fuel.

"(e) APPLICATION WITH OTHER CREDITS.—The credit allowed under subsection (a) for any taxable year shall not exceed the excess (if any) of—

"(1) the regular tax for the taxable year reduced by the sum of the credits allowable under subpart A and sections 27, 29, and 30, over

"(2) the tentative minimum tax for the taxable year.

"(f) OTHER DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) CONSUMABLE FUEL.—The term 'consumable fuel' means any solid, liquid, or gaseous matter which releases energy when consumed by an auxiliary power unit.

"(2) MOTOR VEHICLE.—The term 'motor vehicle' has the meaning given such term by section 30(c)(2).

"(3) CITY FUEL ECONOMY.—The city fuel economy with respect to any vehicle shall be measured in a manner which is substantially similar to the manner city fuel economy is measured in accordance with procedures under part 600 of subchapter Q of chapter I of title 40, Code of Federal Regulations, as in effect on the date of the enactment of this section.

"(4) OTHER TERMS.—The terms 'automobile', 'passenger automobile', 'light truck', and 'manufacturer' have the meanings given such terms in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

"(5) REDUCTION IN BASIS.—For purposes of this subtitle, the basis of any property for which a credit is allowable under subsection (a) shall be reduced by the amount of such credit so allowed (determined without regard to subsection (e)).

"(6) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter—

"(A) for any incremental cost taken into account in computing the amount of the credit determined under subsection (d) shall be reduced by the amount of such credit attributable to such cost, and

"(B) with respect to a vehicle described under subsection (b) or (c), shall be reduced by the amount of credit allowed under subsection (a) for such vehicle for the taxable year.

"(7) PROPERTY USED BY TAX-EXEMPT ENTITIES.—In the case of a credit amount which is allowable with respect to a motor vehicle which is acquired by an entity exempt from tax under this chapter, the person which sells or leases such vehicle to the entity shall be treated as the taxpayer with respect to the vehicle for purposes of this section and the credit shall be allowed to such person, but only if the person clearly discloses to the entity at the time of any sale or lease the specific amount of any credit otherwise allowable to the entity under this section.

"(8) RECAPTURE.—The Secretary shall, by regulations, provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any property which ceases to be property eligible for such credit (including recapture in the case of a lease period of less than the economic life of a vehicle).

"(9) PROPERTY USED OUTSIDE UNITED STATES, ETC., NOT QUALIFIED.—No credit shall be allowed under subsection (a) with respect to any property referred to in section 50(b) or with respect to the portion of the cost of any property taken into account under section 179.

"(10) ELECTION TO NOT TAKE CREDIT.—No credit shall be allowed under subsection (a) for any

vehicle if the taxpayer elects to not have this section apply to such vehicle.

"(11) CARRYBACK AND CARRYFORWARD ALLOWED.—

"(A) IN GENERAL.—If the credit amount allowable under subsection (a) for a taxable year exceeds the amount of the limitation under subsection (e) for such taxable year (in this paragraph referred to as the 'unused credit year'), such excess shall be allowed as a credit carryback for each of the 3 taxable years beginning after September 30, 2002, which precede the unused credit year and a credit carryforward for each of the 20 taxable years which succeed the unused credit year.

"(B) RULES.—Rules similar to the rules of section 39 shall apply with respect to the credit carryback and credit carryforward under subparagraph (A).

"(12) INTERACTION WITH AIR QUALITY AND MOTOR VEHICLE SAFETY STANDARDS.—Unless otherwise provided in this section, a motor vehicle shall not be considered eligible for a credit under this section unless such vehicle is in compliance with—

"(A) the applicable provisions of the Clean Air Act for the applicable make and model year of the vehicle (or applicable air quality provisions of State law in the case of a State which has adopted such provision under a waiver under section 209(b) of the Clean Air Act), and

"(B) the motor vehicle safety provisions of sections 30101 through 30169 of title 49, United States Code.

"(g) REGULATIONS.—

"(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall promulgate such regulations as necessary to carry out the provisions of this section.

"(2) COORDINATION IN PRESCRIPTION OF CERTAIN REGULATIONS.—The Secretary of the Treasury, in coordination with the Secretary of Transportation and the Administrator of the Environmental Protection Agency, shall prescribe such regulations as necessary to determine whether a motor vehicle meets the requirements to be eligible for a credit under this section.

"(h) TERMINATION.—This section shall not apply to any property purchased after—

"(1) in the case of a new qualified fuel cell motor vehicle (as described in subsection (b)), December 31, 2011, and

"(2) in the case of any other property, December 31, 2006.".

(b) CONFORMING AMENDMENTS.—

(1) Section 1016(a) is amended by striking "and" at the end of paragraph (27), by striking the period at the end of paragraph (28) and inserting ", and", and by adding at the end the following new paragraph:

"(29) to the extent provided in section 30B(f)(5).".

(2) Section 55(c)(2) is amended by inserting "30B(e)," after "30(b)(3)".

(3) Section 6501(m) is amended by inserting "30B(f)(10)," after "30(d)(4),".

(4) The table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 30A the following new item:

"Sec. 30B. Alternative motor vehicle credit.".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after September 30, 2002, in taxable years ending after such date.

SEC. 2002. MODIFICATION OF CREDIT FOR QUALIFIED ELECTRIC VEHICLES.

(a) AMOUNT OF CREDIT.—

(1) IN GENERAL.—Section 30(a) (relating to allowance of credit) is amended by striking "10 percent of".

(2) LIMITATION OF CREDIT ACCORDING TO TYPE OF VEHICLE.—Section 30(b) (relating to limitations) is amended—

(A) by striking paragraphs (1) and (2) and inserting the following new paragraph:

"(1) LIMITATION ACCORDING TO TYPE OF VEHICLE.—The amount of the credit allowed under subsection (a) for any vehicle shall not exceed the greatest of the following amounts applicable to such vehicle:

"(A) In the case of a vehicle which conforms to the Motor Vehicle Safety Standard 500 prescribed by the Secretary of Transportation, as in effect on the date of the enactment of the Energy Tax Incentives Act of 2002, the lesser of—

"(i) 10 percent of the manufacturer's suggested retail price of the vehicle, or

"(ii) $1,500.

"(B) In the case of a vehicle not described in subparagraph (A) with a gross vehicle weight rating not exceeding 8,500 pounds—

"(i) $3,500, or

"(ii) $6,000, if such vehicle is—

"(I) capable of a driving range of at least 100 miles on a single charge of the vehicle's rechargeable batteries as measured pursuant to the urban dynamometer schedules under appendix I to part 86 of title 40, Code of Federal Regulations, or

"(II) capable of a payload capacity of at least 1,000 pounds.

"(C) In the case of a vehicle with a gross vehicle weight rating exceeding 8,500 but not exceeding 14,000 pounds, $10,000.

"(D) In the case of a vehicle with a gross vehicle weight rating exceeding 14,000 but not exceeding 26,000 pounds, $20,000.

"(E) In the case of a vehicle with a gross vehicle weight rating exceeding 26,000 pounds, $40,000.", and

(B) by redesignating paragraph (3) as paragraph (2).

(3) CONFORMING AMENDMENTS.—

(A) Section 53(d)(1)(B)(iii) is amended by striking "section 30(b)(3)(B)" and inserting "section 30(b)(2)(B)".

(3) Section 55(c)(2), as amended by this Act, is amended by striking "30(b)(3)" and inserting "30(b)(2)".

(b) QUALIFIED BATTERY ELECTRIC VEHICLE.—

(1) IN GENERAL.—Section 30(c)(1)(A) (defining qualified electric vehicle) is amended to read as follows:

"(A) which is—

"(i) operated solely by use of a battery or battery pack, or

"(ii) powered primarily through the use of an electric battery or battery pack using a flywheel or capacitor which stores energy produced by an electric motor through regenerative braking to assist in vehicle operation,".

(2) LEASED VEHICLES.—Section 30(c)(1)(C) is amended by inserting "or lease" after "use".

(3) CONFORMING AMENDMENTS.—

(A) Subsections (a), (b)(2), and (c) of section 30 are each amended by inserting "battery" after "qualified" each place it appears.

(B) The heading of subsection (c) of section 30 is amended by inserting "BATTERY" after "QUALIFIED".

*(C) The heading of section 30 is amended by inserting "**BATTERY**" after "**QUALIFIED**".*

(D) The item relating to section 30 in the table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by inserting "battery" after "qualified".

(E) Section 179A(c)(3) is amended by inserting "battery" before "electric".

(F) The heading of paragraph (3) of section 179A(c) is amended by inserting "BATTERY" before "ELECTRIC".

(c) ADDITIONAL SPECIAL RULES.—Section 30(d) (relating to special rules) is amended by adding at the end the following new paragraphs:

"(5) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter for any cost taken into account in computing the amount of the credit determined under subsection (a) shall be reduced by the amount of such credit attributable to such cost.

"(6) PROPERTY USED BY TAX-EXEMPT ENTITIES.—In the case of a credit amount which is allow-

able with respect to a vehicle which is acquired by an entity exempt from tax under this chapter, the person which sells or leases such vehicle to the entity shall be treated as the taxpayer with respect to the vehicle for purposes of this section and the credit shall be allowed to such person, but only if the person clearly discloses to the entity at the time of any sale or lease the specific amount of any credit otherwise allowable to the entity under this section.

"(7) CARRYBACK AND CARRYFORWARD ALLOWED.—

"(A) IN GENERAL.—If the credit amount allowable under subsection (a) for a taxable year exceeds the amount of the limitation under subsection (b)(2) for such taxable year (in this paragraph referred to as the 'unused credit year'), such excess shall be allowed as a credit carryback for each of the 3 taxable years beginning after September 30, 2002, which precede the unused credit year and a credit carryforward for each of the 20 taxable years which succeed the unused credit year.

"(B) RULES.—Rules similar to the rules of section 39 shall apply with respect to the credit

carryback and credit carryforward under subparagraph (A).".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after September 30, 2002, in taxable years ending after such date.

SEC. 2003. CREDIT FOR INSTALLATION OF ALTERNATIVE FUELING STATIONS.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to foreign tax credit, etc.), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 30C. CLEAN-FUEL VEHICLE REFUELING PROPERTY CREDIT.

"(a) CREDIT ALLOWED.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to 50 percent of the amount paid or incurred by the taxpayer during the taxable year for the installation of qualified clean-fuel vehicle refueling property.

"(b) LIMITATION.—The credit allowed under subsection (a)—

"(1) with respect to any retail clean-fuel vehicle refueling property, shall not exceed $30,000, and

"(2) with respect to any residential clean-fuel vehicle refueling property, shall not exceed $1,000.

"(c) YEAR CREDIT ALLOWED.—The credit allowed under subsection (a) shall be allowed in the taxable year in which the qualified clean-fuel vehicle refueling property is placed in service by the taxpayer.

"(d) DEFINITIONS.—For purposes of this section—

"(1) QUALIFIED CLEAN-FUEL VEHICLE REFUELING PROPERTY.—The term 'qualified clean-fuel vehicle refueling property' has the same meaning given such term by section 179A(d).

"(2) RESIDENTIAL CLEAN-FUEL VEHICLE REFUELING PROPERTY.—The term 'residential clean-fuel vehicle refueling property' means qualified clean-fuel vehicle refueling property which is installed on property which is used as the principal residence (within the meaning of section 121) of the taxpayer.

"(3) RETAIL CLEAN-FUEL VEHICLE REFUELING PROPERTY.—The term 'retail clean-fuel vehicle refueling property' means qualified clean-fuel vehicle refueling property which is installed on property (other than property described in paragraph (2)) used in a trade or business of the taxpayer.

"(e) APPLICATION WITH OTHER CREDITS.—The credit allowed under subsection (a) for any taxable year shall not exceed the excess (if any) of—

"(1) the regular tax for the taxable year reduced by the sum of the credits allowable under subpart A and sections 27, 29, 30, and 30B, over

"(2) the tentative minimum tax for the taxable year.

"(f) BASIS REDUCTION.—For purposes of this title, the basis of any property shall be reduced by the portion of the cost of such property taken into account under subsection (a).

"(g) NO DOUBLE BENEFIT.—No deduction shall be allowed under section 179A with respect to any property with respect to which a credit is allowed under subsection (a).

"(h) REFUELING PROPERTY INSTALLED FOR TAX-EXEMPT ENTITIES.—In the case of qualified clean-fuel vehicle refueling property installed on property owned or used by an entity exempt from tax under this chapter, the person which installs such refueling property for the entity shall be treated as the taxpayer with respect to the refueling property for purposes of this section (and such refueling property shall be treated as retail clean-fuel vehicle refueling property) and the credit shall be allowed to such person, but only if the person clearly discloses to the entity in any installation contract the specific amount of the credit allowable under this section.

"(i) CARRYFORWARD ALLOWED.—

"(1) IN GENERAL.—If the credit amount allowable under subsection (a) for a taxable year exceeds the amount of the limitation under subsection (e) for such taxable year (referred to as the 'unused credit year' in this subsection), such excess shall be allowed as a credit carryforward for each of the 20 taxable years following the unused credit year.

"(2) RULES.—Rules similar to the rules of section 39 shall apply with respect to the credit carryforward under paragraph (1).

"(j) SPECIAL RULES.—Rules similar to the rules of paragraphs (4) and (5) of section 179A(e) shall apply.

"(k) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to carry out the provisions of this section.

"(l) TERMINATION.—This section shall not apply to any property placed in service—

"(1) in the case of property relating to hydrogen, after December 31, 2011, and

"(2) in the case of any other property, after December 31, 2006.".

(b) INCENTIVE FOR PRODUCTION OF HYDROGEN AT QUALIFIED CLEAN-FUEL VEHICLE REFUELING PROPERTY.—Section 179A(d) (defining qualified clean-fuel vehi-

cle refueling property) is amended by adding at the end the following new flush sentence:

"In the case of clean-burning fuel which is hydrogen produced from another clean-burning fuel, paragraph (3)(A) shall be applied by substituting 'production, storage, or dispensing' for 'storage or dispensing' both places it appears.".

(c) CONFORMING AMENDMENTS.—(1) Section 1016(a), as amended by this Act, is amended by striking "and" at the end of paragraph (28), by striking the period at the end of paragraph (29) and inserting ", and", and by adding at the end the following new paragraph:

"(30) to the extent provided in section 30C(f).".

(2) Section 55(c)(2), as amended by this Act, is amended by inserting "30C(e)," after "30B(e)".

(3) The table of sections for subpart B of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 30B the following new item:

"Sec. 30C. Clean-fuel vehicle refueling property credit.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after September 30, 2002, in taxable years ending after such date.

SEC. 2004. CREDIT FOR RETAIL SALE OF ALTERNATIVE FUELS AS MOTOR VEHICLE FUEL.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits) is

amended by inserting after section 40 the following new section:

"SEC. 40A. CREDIT FOR RETAIL SALE OF ALTERNATIVE FUELS AS MOTOR VEHICLE FUEL.

"(a) GENERAL RULE.—For purposes of section 38, the alternative fuel retail sales credit for any taxable year is the applicable amount for each gasoline gallon equivalent of alternative fuel sold at retail by the taxpayer during such year as a fuel to propel any qualified motor vehicle.

"(b) DEFINITIONS.—For purposes of this section—

"(1) APPLICABLE AMOUNT.—The term 'applicable amount' means the amount determined in accordance with the following table:

"In the case of any taxable year ending in—	***The applicable amount is—***
2002 and 2003	*30 cents*
2004	*40 cents*
2005 and 2006	*50 cents.*

"(2) ALTERNATIVE FUEL.—The term 'alternative fuel' means compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid at least 85 percent of the volume of which consists of methanol or ethanol.

"(3) GASOLINE GALLON EQUIVALENT.—The term 'gasoline gallon equivalent' means, with respect to any alternative fuel, the amount (determined by the Secretary) of such fuel having a Btu content of 114,000.

"(4) QUALIFIED MOTOR VEHICLE.—The term 'qualified motor vehicle' means any motor vehicle (as defined in section 30(c)(2)) which meets any applicable Federal or State emissions standards with respect to each fuel by which such vehicle is designed to be propelled.

"(5) SOLD AT RETAIL.—

"(A) IN GENERAL.—The term 'sold at retail' means the sale, for a purpose other than resale, after manufacture, production, or importation.

"(B) USE TREATED AS SALE.—If any person uses alternative fuel (including any use after importation) as a fuel to propel any qualified alternative fuel motor vehicle (as defined in section 30B(d)(4)) before such fuel is sold at retail, then such use shall be treated in the same manner as if such fuel were sold at retail as a fuel to propel such a vehicle by such person.

"(c) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter for any fuel taken into account in computing the amount of the credit determined under subsection (a) shall be reduced by the amount of such credit attributable to such fuel.

"(d) PASS-THRU IN THE CASE OF ESTATES AND TRUSTS.—Under regulations prescribed by the Secretary,

rules similar to the rules of subsection (d) of section 52 shall apply.

"(e) TERMINATION.—This section shall not apply to any fuel sold at retail after December 31, 2006.".

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b) (relating to current year business credit) is amended by striking "plus" at the end of paragraph (14), by striking the period at the end of paragraph (15) and inserting ", plus", and by adding at the end the following new paragraph:

"(16) the alternative fuel retail sales credit determined under section 40A(a).".

(c) TRANSITIONAL RULE.—Section 39(d) (relating to transitional rules) is amended by adding at the end the following new paragraph:

"(11) NO CARRYBACK OF SECTION 40A CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the alternative fuel retail sales credit determined under section 40A(a) may be carried back to a taxable year ending before January 1, 2002.".

(d) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 40 the following new item:

"Sec. 40A. Credit for retail sale of alternative fuels as motor vehicle fuel.".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to fuel sold at retail after September 30, 2002, in taxable years ending after such date.

SEC. 2005. SMALL ETHANOL PRODUCER CREDIT.

(a) ALLOCATION OF ALCOHOL FUELS CREDIT TO PATRONS OF A COOPERATIVE.—Section 40(g) (relating to alcohol used as fuel) is amended by adding at the end the following new paragraph:

"(6) ALLOCATION OF SMALL ETHANOL PRODUCER CREDIT TO PATRONS OF COOPERATIVE.—

"(A) ELECTION TO ALLOCATE.—

"(i) IN GENERAL.—In the case of a cooperative organization described in section 1381(a), any portion of the credit determined under subsection (a)(3) for the taxable year may, at the election of the organization, be apportioned pro rata among patrons of the organization on the basis of the quantity or value of business done with or for such patrons for the taxable year.

"(ii) FORM AND EFFECT OF ELECTION.—An election under clause (i) for any taxable year shall be made on a timely filed return for such year. Such election, once

made, shall be irrevocable for such taxable year.

"(B) TREATMENT OF ORGANIZATIONS AND PATRONS.—The amount of the credit apportioned to patrons under subparagraph (A)—

"(i) shall not be included in the amount determined under subsection (a) with respect to the organization for the taxable year,

"(ii) shall be included in the amount determined under subsection (a) for the taxable year of each patron for which the patronage dividends for the taxable year described in subparagraph (A) are included in gross income, and

"(iii) shall be included in gross income of such patrons for the taxable year in the manner and to the extent provided in section 87.

"(C) SPECIAL RULES FOR DECREASE IN CREDITS FOR TAXABLE YEAR.—If the amount of the credit of a cooperative organization determined under subsection (a)(3) for a taxable year is less than the amount of such credit shown on

the return of the cooperative organization for such year, an amount equal to the excess of—

"(i) such reduction, over

"(ii) the amount not apportioned to such patrons under subparagraph (A) for the taxable year,

shall be treated as an increase in tax imposed by this chapter on the organization. Such increase shall not be treated as tax imposed by this chapter for purposes of determining the amount of any credit under this chapter or for purposes of section 55.".

(b) IMPROVEMENTS TO SMALL ETHANOL PRODUCER CREDIT.—

(1) DEFINITION OF SMALL ETHANOL PRODUCER.—Section 40(g) (relating to definitions and special rules for eligible small ethanol producer credit) is amended by striking "30,000,000" each place it appears and inserting "60,000,000".

(2) SMALL ETHANOL PRODUCER CREDIT NOT A PASSIVE ACTIVITY CREDIT.—Clause (i) of section 469(d)(2)(A) is amended by striking "subpart D" and inserting "subpart D, other than section 40(a)(3),".

(3) ALLOWING CREDIT AGAINST ENTIRE REGULAR TAX AND MINIMUM TAX.—

(A) IN GENERAL.—Subsection (c) of section 38 (relating to limitation based on amount of tax), as amended by section 301(b) of the Job Creation and Worker Assistance Act of 2002, is amended by redesignating paragraph (4) as paragraph (5) and by inserting after paragraph (3) the following new paragraph:

"(4) SPECIAL RULES FOR SMALL ETHANOL PRODUCER CREDIT.—

"(A) IN GENERAL.—In the case of the small ethanol producer credit—

"(i) this section and section 39 shall be applied separately with respect to the credit, and

"(ii) in applying paragraph (1) to the credit—

"(I) the amounts in subparagraphs (A) and (B) thereof shall be treated as being zero, and

"(II) the limitation under paragraph (1) (as modified by subclause (I)) shall be reduced by the credit allowed under subsection (a) for the taxable year (other than the small ethanol producer credit).

"(B) SMALL ETHANOL PRODUCER CREDIT.—For purposes of this subsection, the term 'small ethanol producer credit' means the credit allowable under subsection (a) by reason of section 40(a)(3).".

(B) CONFORMING AMENDMENTS.—Subclause (II) of section 38(c)(2)(A)(ii), as amended by section 301(b)(2) of the Job Creation and Worker Assistance Act of 2002, and subclause (II) of section 38(c)(3)(A)(ii), as added by section 301(b)(1) of such Act, are each amended by inserting "or the small ethanol producer credit" after "employee credit".

(4) SMALL ETHANOL PRODUCER CREDIT NOT ADDED BACK TO INCOME UNDER SECTION 87.—Section 87 (relating to income inclusion of alcohol fuel credit) is amended to read as follows:

"SEC. 87. ALCOHOL FUEL CREDIT.

"Gross income includes an amount equal to the sum of—

"(1) the amount of the alcohol mixture credit determined with respect to the taxpayer for the taxable year under section 40(a)(1), and

"(2) the alcohol credit determined with respect to the taxpayer for the taxable year under section 40(a)(2).".

(c) CONFORMING AMENDMENT.—Section 1388 (relating to definitions and special rules for cooperative organizations) is amended by adding at the end the following new subsection:

"(k) CROSS REFERENCE.—For provisions relating to the apportionment of the alcohol fuels credit between cooperative organizations and their patrons, see section 40(g)(6).".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act.

SEC. 2006. ALL ALCOHOL FUELS TAXES TRANSFERRED TO HIGHWAY TRUST FUND.

(a) IN GENERAL.—Section 9503(b)(4) (relating to certain taxes not transferred to Highway Trust Fund) is amended—

(1) by adding "or" at the end of subparagraph (C),

(2) by striking the comma at the end of subparagraph (D)(iii) and inserting a period, and

(3) by striking subparagraphs (E) and (F).

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to taxes imposed after September 30, 2003.

SEC. 2007. INCREASED FLEXIBILITY IN ALCOHOL FUELS TAX CREDIT.

(a) ALCOHOL FUELS CREDIT MAY BE TRANSFERRED.—Section 40 (relating to alcohol used as fuel) is amended by adding at the end the following new subsection:

"(i) CREDIT MAY BE TRANSFERRED.—

"(1) IN GENERAL.—A taxpayer may transfer any credit allowable under paragraph (1) or (2) of subsection (a) with respect to alcohol used in the production of ethyl tertiary butyl ether through an assignment to a qualified assignee. Such transfer may be revoked only with the consent of the Secretary.

"(2) QUALIFIED ASSIGNEE.—For purposes of this subsection, the term 'qualified assignee' means any person who—

"(A) is liable for taxes imposed under section 4081,

"(B) is required to register under section 4101, and

"(C) obtains a certificate from the taxpayer described in paragraph (1) which identifies the amount of alcohol used in such production.

"(3) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to insure that any credit described in paragraph (1) is claimed once and not reassigned by a qualified assignee.".

(b) ALCOHOL FUELS CREDIT MAY BE TAKEN AGAINST MOTOR FUELS TAX LIABILITY.—

(1) IN GENERAL.—Subpart C of part III of subchapter A of chapter 32 (relating to special provisions applicable to petroleum products) is amended by adding at the end the following new section:

"SEC. 4104. CREDIT AGAINST MOTOR FUELS TAXES.

"(a) ELECTION TO USE CREDIT AGAINST MOTOR FUELS TAXES.—There is hereby allowed as a credit against the taxes imposed by section 4081, any credit allowed under paragraph (1) or (2) of section 40(a) with respect to alcohol used in the production of ethyl tertiary butyl ether to the extent—

"(1) such credit is not claimed by the taxpayer or the qualified assignee under section 40(i) as a credit under section 40, and

"(2) the taxpayer or qualified assignee elects to claim such credit under this section.

"(b) ELECTION IRREVOCABLE.—Any election under subsection (a) shall be irrevocable.

"(c) REQUIRED STATEMENT.—Any return claiming a credit pursuant to an election under this section shall be accompanied by a statement that the credit was not, and will not, be claimed on an income tax return.

"(d) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to avoid the claiming of double benefits and to prescribe the taxable periods with respect to which the credit may be claimed.".

(2) CONFORMING AMENDMENT.—Section 40(c) is amended by striking "or section 4091(c)" and inserting "section 4091(c), or section 4104".

(3) CLERICAL AMENDMENT.—The table of sections for subpart C of part III of subchapter A of chapter 32 is amended by adding at the end the following new item:

"Sec. 4104. Credit against motor fuels taxes.".

(c) EFFECTIVE DATE.—The amendments made by this section shall take effect on and after the date of the enactment of this Act.

SEC. 2008. INCENTIVES FOR BIODIESEL.

(a) CREDIT FOR BIODIESEL USED AS A FUEL.—

(1) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits), as amended by this Act, is amended by inserting after section 40A the following new section:

"SEC. 40B. BIODIESEL USED AS FUEL.

"(a) GENERAL RULE.—For purposes of section 38, the biodiesel fuels credit determined under this section for the taxable year is an amount equal to the biodiesel mixture credit.

"(b) DEFINITION OF BIODIESEL MIXTURE CREDIT.—For purposes of this section—

"(1) BIODIESEL MIXTURE CREDIT.—

"(A) IN GENERAL.—The biodiesel mixture credit of any taxpayer for any taxable year is the sum of the products of the biodiesel mixture rate for each qualified biodiesel mixture and the number of gallons of such mixture of the taxpayer for the taxable year.

"(B) BIODIESEL MIXTURE RATE.—For purposes of subparagraph (A), the biodiesel mixture rate for each qualified biodiesel mixture shall be—

"(i) in the case of a mixture with only biodiesel V, 1 cent for each whole percentage point (not exceeding 20 percentage points) of biodiesel V in such mixture, and

"(ii) in the case of a mixture with biodiesel NV, or a combination of biodiesel V and biodiesel NV, 0.5 cent for each whole percentage point (not exceeding 20 percent-

age points) of such biodiesel in such mixture.

"(2) QUALIFIED BIODIESEL MIXTURE.—

"(A) IN GENERAL.—The term 'qualified biodiesel mixture' means a mixture of diesel and biodiesel V or biodiesel NV which—

"(i) is sold by the taxpayer producing such mixture to any person for use as a fuel, or

"(ii) is used as a fuel by the taxpayer producing such mixture.

"(B) SALE OR USE MUST BE IN TRADE OR BUSINESS, ETC.—

"(i) IN GENERAL.—Biodiesel V or biodiesel NV used in the production of a qualified biodiesel mixture shall be taken into account—

"(I) only if the sale or use described in subparagraph (A) is in a trade or business of the taxpayer, and

"(II) for the taxable year in which such sale or use occurs.

"(ii) CERTIFICATION FOR BIODIESEL V.—Biodiesel V used in the production of a qualified biodiesel mixture shall be taken

into account only if the taxpayer described in subparagraph (A) obtains a certification from the producer of the biodiesel V which identifies the product produced.

"(C) CASUAL OFF-FARM PRODUCTION NOT ELIGIBLE.—No credit shall be allowed under this section with respect to any casual off-farm production of a qualified biodiesel mixture.

"(c) COORDINATION WITH EXEMPTION FROM EXCISE TAX.—The amount of the credit determined under this section with respect to any biodiesel V shall, under regulations prescribed by the Secretary, be properly reduced to take into account any benefit provided with respect to such biodiesel V solely by reason of the application of section 4041(n) or section 4081(f).

"(d) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) BIODIESEL V DEFINED.—The term 'biodiesel V' means the monoalkyl esters of long chain fatty acids derived solely from virgin vegetable oils for use in compressional-ignition (diesel) engines. Such term shall include esters derived from vegetable oils from corn, soybeans, sunflower seeds, cottonseeds, canola, crambe, rapeseeds, safflowers, flaxseeds, rice bran, and mustard seeds.

"(2) BIODIESEL NV DEFINED.—The term 'biodiesel nv' means the monoalkyl esters of long chain fatty acids derived from nonvirgin vegetable oils or animal fats for use in compressional-ignition (diesel) engines.

"(3) REGISTRATION REQUIREMENTS.—The terms 'biodiesel V' and 'biodiesel NV' shall only include a biodiesel which meets—

"(i) the registration requirements for fuels and fuel additives established by the Environmental Protection Agency under section 211 of the Clean Air Act (42 U.S.C. 7545), and

"(ii) the requirements of the American Society of Testing and Materials D6751.

"(2) BIODIESEL MIXTURE NOT USED AS A FUEL, ETC.—

"(A) IMPOSITION OF TAX.—If—

"(i) any credit was determined under this section with respect to biodiesel V or biodiesel NV used in the production of any qualified biodiesel mixture, and

"(ii) any person—

"(I) separates such biodiesel from the mixture, or

"(II) without separation, uses the mixture other than as a fuel,

then there is hereby imposed on such person a tax equal to the product of the biodiesel mixture rate applicable under subsection (b)(1)(B) and the number of gallons of the mixture.

"(B) APPLICABLE LAWS.—All provisions of law, including penalties, shall, insofar as applicable and not inconsistent with this section, apply in respect of any tax imposed under subparagraph (A) as if such tax were imposed by section 4081 and not by this chapter.

"(3) PASS-THRU IN THE CASE OF ESTATES AND TRUSTS.—Under regulations prescribed by the Secretary, rules similar to the rules of subsection (d) of section 52 shall apply.

"(e) ELECTION TO HAVE BIODIESEL FUELS CREDIT NOT APPLY.—

"(1) IN GENERAL.—A taxpayer may elect to have this section not apply for any taxable year.

"(2) TIME FOR MAKING ELECTION.—An election under paragraph (1) for any taxable year may be made (or revoked) at any time before the expiration of the 3-year period beginning on the last date pre-

scribed by law for filing the return for such taxable year (determined without regard to extensions).

"(3) MANNER OF MAKING ELECTION.—An election under paragraph (1) (or revocation thereof) shall be made in such manner as the Secretary may by regulations prescribe.".

"(f) TERMINATION.—This section shall not apply to any fuel sold after December 31, 2005.".

(2) CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking "plus" at the end of paragraph (15), by striking the period at the end of paragraph (16) and inserting ", plus", and by adding at the end the following new paragraph:

"(17) the biodiesel fuels credit determined under section 40B(a).".

(3) CONFORMING AMENDMENTS.—

(A) Section 39(d), as amended by this Act, is amended by adding at the end the following new paragraph:

"(12) NO CARRYBACK OF BIODIESEL FUELS CREDIT BEFORE JANUARY 1, 2003.—No portion of the unused business credit for any taxable year which is attributable to the biodiesel fuels credit determined

under section 40B may be carried back to a taxable year beginning before January 1, 2003.".

(B) Section 196(c) is amended by striking "and" at the end of paragraph (9), by striking the period at the end of paragraph (10), and by adding at the end the following new paragraph: "(11) the biodiesel fuels credit determined under section 40B(a).".

(C) Section 6501(m), as amended by this Act, is amended by inserting "40B(e)," after "40(f),".

(D) The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding after the item relating to section 40A the following new item:

"Sec. 40B. Biodiesel used as fuel.".

(4) EFFECTIVE DATE.—The amendments made by this subsection shall apply to taxable years beginning after December 31, 2002.

(b) REDUCTION OF MOTOR FUEL EXCISE TAXES ON BIODIESEL V MIXTURES.—

(1) IN GENERAL.—Section 4081 (relating to manufacturers tax on petroleum products) is amended by adding at the end the following new subsection:

"(f) BIODIESEL V MIXTURES.—Under regulations prescribed by the Secretary—

"(1) IN GENERAL.—In the case of the removal or entry of a qualified biodiesel mixture with biodiesel V, the rate of tax under subsection (a) shall be the otherwise applicable rate reduced by the biodiesel mixture rate (if any) applicable to the mixture.

"(2) TAX PRIOR TO MIXING.—

"(A) IN GENERAL.—In the case of the removal or entry of diesel fuel for use in producing at the time of such removal or entry a qualified biodiesel mixture with biodiesel V, the rate of tax under subsection (a) shall be the rate determined under subparagraph (B).

"(B) DETERMINATION OF RATE.—For purposes of subparagraph (A), the rate determined under this subparagraph is the rate determined under paragraph (1), divided by a percentage equal to 100 percent minus the percentage of biodiesel V which will be in the mixture.

"(3) DEFINITIONS.—For purposes of this subsection, any term used in this subsection which is also used in section 40B shall have the meaning given such term by section 40B.

"(4) CERTAIN RULES TO APPLY.—Rules similar to the rules of paragraphs (6) and (7) of subsection (c) shall apply for purposes of this subsection.".

(2) CONFORMING AMENDMENTS.—

(A) Section 4041 is amended by adding at the end the following new subsection:

"(n) BIODIESEL V MIXTURES.—Under regulations prescribed by the Secretary, in the case of the sale or use of a qualified biodiesel mixture (as defined in section 40B(b)(2)) with biodiesel V, the rates under paragraphs (1) and (2) of subsection (a) shall be the otherwise applicable rates, reduced by any applicable biodiesel mixture rate (as defined in section 40B(b)(1)(B)).".

(B) Section 6427 is amended by redesignating subsection (p) as subsection (q) and by inserting after subsection (o) the following new subsection:

"(p) BIODIESEL V MIXTURES.—Except as provided in subsection (k), if any diesel fuel on which tax was imposed by section 4081 at a rate not determined under section 4081(f) is used by any person in producing a qualified biodiesel mixture (as defined in section 40B(b)(2)) with biodiesel V which is sold or used in such person's trade or business, the Secretary shall pay (without interest) to such person an amount equal to the per gallon applicable biodiesel

mixture rate (as defined in section 40B(b)(1)(B)) with respect to such fuel.".

(3) EFFECTIVE DATE.—The amendments made by this subsection shall apply to any fuel sold after December 31, 2002, and before January 1, 2006.

(c) HIGHWAY TRUST FUND HELD HARMLESS.—There are hereby transferred (from time to time) from the funds of the Commodity Credit Corporation amounts determined by the Secretary of the Treasury to be equivalent to the reductions that would occur (but for this subsection) in the receipts of the Highway Trust Fund by reason of the amendments made by this section.

SEC. 2009. CREDIT FOR TAXPAYERS OWNING COMMERCIAL POWER TAKEOFF VEHICLES.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business-related credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45N. COMMERCIAL POWER TAKEOFF VEHICLES CREDIT.

"(a) GENERAL RULE.—For purposes of section 38, the amount of the commercial power takeoff vehicles credit determined under this section for the taxable year is $250 for each qualified commercial power takeoff vehicle owned by

the taxpayer as of the close of the calendar year in which or with which the taxable year of the taxpayer ends.

"(b) DEFINITIONS.—For purposes of this section—

"(1) QUALIFIED COMMERCIAL POWER TAKEOFF VEHICLE.—The term 'qualified commercial power takeoff vehicle' means any highway vehicle described in paragraph (2) which is propelled by any fuel subject to tax under section 4041 or 4081 if such vehicle is used in a trade or business or for the production of income (and is licensed and insured for such use).

"(2) HIGHWAY VEHICLE DESCRIBED.—A highway vehicle is described in this paragraph if such vehicle is—

"(A) designed to engage in the daily collection of refuse or recyclables from homes or businesses and is equipped with a mechanism under which the vehicle's propulsion engine provides the power to operate a load compactor, or

"(B) designed to deliver ready mixed concrete on a daily basis and is equipped with a mechanism under which the vehicle's propulsion engine provides the power to operate a mixer drum to agitate and mix the product en route to the delivery site.

"(c) EXCEPTION FOR VEHICLES USED BY GOVERNMENTS, ETC.—No credit shall be allowed under this section for any vehicle owned by any person at the close of a calendar year if such vehicle is used at any time during such year by—

"(1) the United States or an agency or instrumentality thereof, a State, a political subdivision of a State, or an agency or instrumentality of one or more States or political subdivisions, or

"(2) an organization exempt from tax under section 501(a).

"(d) DENIAL OF DOUBLE BENEFIT.—The amount of any deduction under this subtitle for any tax imposed by subchapter B of chapter 31 or part III of subchapter A of chapter 32 for any taxable year shall be reduced (but not below zero) by the amount of the credit determined under this subsection for such taxable year.

"(e) TERMINATION.—This section shall not apply with respect to any calendar year after 2004.".

(b) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Subsection (b) of section 38 (relating to general business credit), as amended by this Act, is amended by striking "plus" at the end of paragraph (22), by striking the period at the end of paragraph (23) and inserting ",

plus", and by adding at the end the following new paragraph:

"(24) the commercial power takeoff vehicles credit under section 45N(a).".

(c) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45N. Commercial power takeoff vehicles credit.".

(d) REGULATIONS.—Not later than January 1, 2005, the Secretary of the Treasury, in consultation with the Secretary of Energy, shall by regulation provide for the method of determining the exemption from any excise tax imposed under section 4041 or 4081 of the Internal Revenue Code of 1986 on fuel used through a mechanism to power equipment attached to a highway vehicle as described in section 45N(b)(2) of such Code, as added by subsection (a).

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act.

SEC. 2010. MODIFICATIONS TO THE INCENTIVES FOR ALTERNATIVE VEHICLES AND FUELS.

(a) MODIFICATION TO NEW QUALIFIED HYBRID MOTOR VEHICLE CREDIT.—The table in section 30B(c)(2)(A) of the Internal Revenue Code of 1986, as

added by this Act, is amended by striking "5 percent" and inserting "4 percent".

(b) MODIFICATIONS TO EXTENSION OF DEDUCTION FOR CERTAIN REFUELING PROPERTY.—

(1) IN GENERAL.—Subsection (f) of section 179A of the Internal Revenue Code of 1986 is amended to read as follows:

"(f) TERMINATION.—This section shall not apply to any property placed in service—

"(1) in the case of property relating to hydrogen, after December 31, 2011, and

"(2) in the case of any other property, after December 31, 2007.".

(2) EXTENSION OF PHASEOUT.—Section 179A(b)(1)(B) of such Code, as amended by section 606(a) of the Job Creation and Worker Assistance Act of 2002, is amended—

(A) by striking "calendar year 2004" in clause (i) and inserting "calendar years 2004 and 2005 (calendar years 2004 through 2009 in the case of property relating to hydrogen) ",

(B) by striking "2005" in clause (ii) and inserting "2006 (calendar year 2010 in the case of property relating to hydrogen)", and

(C) by striking "2006" in clause (iii) and inserting "2007 (calendar year 2011 in the case of property relating to hydrogen)".

(3) EFFECTIVE DATE.—The amendments made by this subsection shall apply to property placed in service after December 31, 2003, in taxable years ending after such date.

(c) MODIFICATION TO CREDIT FOR INSTALLATION OF ALTERNATIVE FUELING STATIONS.—Subsection (l) of section 30C of the Internal Revenue Code of 1986, as added by this Act, is amended to read as follows:

"(l) TERMINATION.—This section shall not apply to any property placed in service—

"(1) in the case of property relating to hydrogen, after December 31, 2011, and

"(2) in the case of any other property, after December 31, 2007.".

(d) EFFECTIVE DATE.—Except as provided in subsection (b)(3), the amendments made by this section shall apply to property placed in service after September 30, 2002, in taxable years ending after such date.

TITLE XXI—CONSERVATION AND ENERGY EFFICIENCY PROVISIONS

SEC. 2101. CREDIT FOR CONSTRUCTION OF NEW ENERGY EFFICIENT HOME.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45G. NEW ENERGY EFFICIENT HOME CREDIT.

"(a) IN GENERAL.—For purposes of section 38, in the case of an eligible contractor, the credit determined under this section for the taxable year is an amount equal to the aggregate adjusted bases of all energy efficient property installed in a qualifying new home during construction of such home.

"(b) LIMITATIONS.—

"(1) MAXIMUM CREDIT.—

"(A) IN GENERAL.—The credit allowed by this section with respect to a qualifying new home shall not exceed—

"(i) in the case of a 30-percent home, $1,250, and

"(ii) in the case of a 50-percent home, $2,000.

"(B) 30- OR 50-PERCENT HOME.—For purposes of subparagraph (A)—

"(i) 30-PERCENT HOME.—The term '30-percent home' means a qualifying new home which is certified to have a projected level of annual heating and cooling energy consumption, measured in terms of average annual energy cost to the homeowner, which is at least 30 percent less than the annual level of heating and cooling energy consumption of a reference qualifying new home constructed in accordance with the standards of chapter 4 of the 2000 International Energy Conservation Code, or a qualifying new home which is a manufactured home which meets the applicable standards of the Energy Star program managed jointly by the Environmental Protection Agency and the Department of Energy.

"(ii) 50-PERCENT HOME.—The term '50-percent home' means a qualifying new home which is certified to have a projected level of annual heating and cooling energy consumption, measured in terms of average

annual energy cost to the homeowner, which is at least 50 percent less than such annual level of heating and cooling energy consumption.

"(C) PRIOR CREDIT AMOUNTS ON SAME HOME TAKEN INTO ACCOUNT.—If a credit was allowed under subsection (a) with respect to a qualifying new home in 1 or more prior taxable years, the amount of the credit otherwise allowable for the taxable year with respect to that home shall not exceed the amount under clause (i) or (ii) of subparagraph (A) (as the case may be), reduced by the sum of the credits allowed under subsection (a) with respect to the home for all prior taxable years.

"(2) COORDINATION WITH REHABILITATION AND ENERGY CREDITS.—For purposes of this section—

"(A) the basis of any property referred to in subsection (a) shall be reduced by that portion of the basis of any property which is attributable to the rehabilitation credit (as determined under section 47(a)) or to the energy percentage of energy property (as determined under section 48(a)), and

"(B) expenditures taken into account under either section 47 or 48(a) shall not be taken into account under this section.

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

"(1) ELIGIBLE CONTRACTOR.—The term 'eligible contractor' means the person who constructed the qualifying new home, or in the case of a manufactured home which conforms to Federal Manufactured Home Construction and Safety Standards (24 C.F.R. 3280), the manufactured home producer of such home.

"(2) ENERGY EFFICIENT PROPERTY.—The term 'energy efficient property' means any energy efficient building envelope component, and any energy efficient heating or cooling equipment which can, individually or in combination with other components, meet the requirements of this section.

"(3) QUALIFYING NEW HOME.—The term 'qualifying new home' means a dwelling—

"(A) located in the United States,

"(B) the construction of which is substantially completed after the date of the enactment of this section, and

"(C) the first use of which after construction is as a principal residence (within the meaning of section 121).

"(4) CONSTRUCTION.—The term 'construction' includes reconstruction and rehabilitation.

"(5) BUILDING ENVELOPE COMPONENT.—The term 'building envelope component' means—

"(A) any insulation material or system which is specifically and primarily designed to reduce the heat loss or gain of a qualifying new home when installed in or on such home, and

"(B) exterior windows (including skylights) and doors.

"(6) MANUFACTURED HOME INCLUDED.—The term 'qualifying new home' includes a manufactured home conforming to Federal Manufactured Home Construction and Safety Standards (24 C.F.R. 3280).

"(d) CERTIFICATION.—

"(1) METHOD OF CERTIFICATION.—

"(A) IN GENERAL.—A certification described in subsection (b)(1)(B) shall be determined either by a component-based method or a performance-based method.

"(B) COMPONENT-BASED METHOD.—A component-based method is a method which uses the applicable technical energy efficiency specifications or ratings (including product labeling requirements) for the energy efficient building en-

velope component or energy efficient heating or cooling equipment. The Secretary shall, in consultation with the Administrator of the Environmental Protection Agency, develop prescriptive component-based packages that are equivalent in energy performance to properties that qualify under subparagraph (C).

"(C) PERFORMANCE-BASED METHOD.—

"(i) IN GENERAL.—A performance-based method is a method which calculates projected energy usage and cost reductions in the qualifying new home in relation to a reference qualifying new home—

"(I) heated by the same energy source and heating system type, and

"(II) constructed in accordance with the standards of chapter 4 of the 2000 International Energy Conservation Code.

"(ii) COMPUTER SOFTWARE.—Computer software shall be used in support of a performance-based method certification under clause (i). Such software shall meet procedures and methods for calculating energy and cost savings in regulations pro-

mulgated by the Secretary of Energy. Such regulations on the specifications for software and verification protocols shall be based on the 2001 California Residential Alternative Calculation Method Approval Manual.

"(2) PROVIDER.—A certification described in subsection (b)(1)(B) shall be provided by—

"(A) in the case of a component-based method, a local building regulatory authority, a utility, a manufactured home production inspection primary inspection agency (IPIA), or a home energy rating organization, or

"(B) in the case of a performance-based method, an individual recognized by an organization designated by the Secretary for such purposes.

"(3) FORM.—

"(A) IN GENERAL.—A certification described in subsection (b)(1)(B) shall be made in writing in a manner that specifies in readily verifiable fashion the energy efficient building envelope components and energy efficient heating or cooling equipment installed and their respective rated energy efficiency performance, and in the case of a performance-based method, accom-

panied by a written analysis documenting the proper application of a permissible energy performance calculation method to the specific circumstances of such qualifying new home.

"(B) FORM PROVIDED TO BUYER.—A form documenting the energy efficient building envelope components and energy efficient heating or cooling equipment installed and their rated energy efficiency performance shall be provided to the buyer of the qualifying new home. The form shall include labeled R-value for insulation products, NFRC-labeled U-factor and Solar Heat Gain Coefficient for windows, skylights, and doors, labeled AFUE ratings for furnaces and boilers, labeled HSPF ratings for electric heat pumps, and labeled SEER ratings for air conditioners.

"(C) RATINGS LABEL AFFIXED IN DWELLING.—A permanent label documenting the ratings in subparagraph (B) shall be affixed to the front of the electrical distribution panel of the qualifying new home, or shall be otherwise permanently displayed in a readily inspectable location in such home.

"(4) REGULATIONS.—

"(A) IN GENERAL.—In prescribing regulations under this subsection for performance-based certification methods, the Secretary, after examining the requirements for energy consultants and home energy ratings providers specified by the Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems, shall prescribe procedures for calculating annual energy usage and cost reductions for heating and cooling and for the reporting of the results. Such regulations shall—

"(i) provide that any calculation procedures be fuel neutral such that the same energy efficiency measures allow a qualifying new home to be eligible for the credit under this section regardless of whether such home uses a gas or oil furnace or boiler or an electric heat pump, and

"(ii) require that any computer software allow for the printing of the Federal tax forms necessary for the credit under this section and for the printing of forms for disclosure to the homebuyer.

"(B) PROVIDERS.—For purposes of paragraph (2)(B), the Secretary shall establish re-

quirements for the designation of individuals based on the requirements for energy consultants and home energy raters specified by the Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems.

"(e) TERMINATION.—Subsection (a) shall apply to qualifying new homes purchased during the period beginning on the date of the enactment of this section and ending on December 31, 2007.".

(b) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Subsection (b) of section 38 (relating to current year business credit), as amended by this Act, is amended by striking "plus" at the end of paragraph (16), by striking the period at the end of paragraph (17) and inserting ", plus", and by adding at the end the following new paragraph:

"(18) the new energy efficient home credit determined under section 45G(a).".

(c) DENIAL OF DOUBLE BENEFIT.—Section 280C (relating to certain expenses for which credits are allowable) is amended by adding at the end the following new subsection:

"(d) NEW ENERGY EFFICIENT HOME EXPENSES.—No deduction shall be allowed for that portion of expenses for a qualifying new home otherwise allowable as a deduction

for the taxable year which is equal to the amount of the credit determined for such taxable year under section 45G(a).".

(d) LIMITATION ON CARRYBACK.—Subsection (d) of section 39, as amended by this Act, is amended by adding at the end the following new paragraph:

"(13) NO CARRYBACK OF NEW ENERGY EFFICIENT HOME CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the credit determined under section 45G may be carried back to any taxable year ending on or before the date of the enactment of section 45G.".

(e) DEDUCTION FOR CERTAIN UNUSED BUSINESS CREDITS.—Subsection (c) of section 196, as amended by this Act, is amended by striking "and" at the end of paragraph (10), by striking the period at the end of paragraph (11) and inserting ", and", and by adding after paragraph (11) the following new paragraph:

"(12) the new energy efficient home credit determined under section 45G(a).".

(f) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45G. New energy efficient home credit.".

(g) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years ending after the date of the enactment of this Act.

SEC. 2102. CREDIT FOR ENERGY EFFICIENT APPLIANCES.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business-related credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45H. ENERGY EFFICIENT APPLIANCE CREDIT.

"(a) GENERAL RULE.—For purposes of section 38, the energy efficient appliance credit determined under this section for the taxable year is an amount equal to the applicable amount determined under subsection (b) with respect to the eligible production of qualified energy efficient appliances produced by the taxpayer during the calendar year ending with or within the taxable year.

"(b) APPLICABLE AMOUNT; ELIGIBLE PRODUCTION.—For purposes of subsection (a)—

"(1) APPLICABLE AMOUNT.—The applicable amount is—

"(A) $50, in the case of—

"(i) a clothes washer which is manufactured with at least a 1.26 MEF, or

"(ii) a refrigerator which consumes at least 10 percent less kWh per year than the

energy conservation standards for refrigerators promulgated by the Department of Energy effective July 1, 2001, and

"(B) $100, in the case of—

"(i) a clothes washer which is manufactured with at least a 1.42 MEF (at least 1.5 MEF for washers produced after 2004), or

"(ii) a refrigerator which consumes at least 15 percent less kWh per year than such energy conservation standards.

"(2) ELIGIBLE PRODUCTION.—

"(A) IN GENERAL.—The eligible production of each category of qualified energy efficient appliances is the excess of—

"(i) the number of appliances in such category which are produced by the taxpayer during such calendar year, over

"(ii) the average number of appliances in such category which were produced by the taxpayer during calendar years 1999, 2000, and 2001.

"(B) CATEGORIES.—For purposes of subparagraph (A), the categories are—

"(i) clothes washers described in paragraph (1)(A)(i),

"(ii) clothes washers described in paragraph (1)(B)(i),

"(iii) refrigerators described in paragraph (1)(A)(ii), and

"(iv) refrigerators described in paragraph (1)(B)(ii).

"(c) LIMITATION ON MAXIMUM CREDIT.—

"(1) IN GENERAL.—The maximum amount of credit allowed under subsection (a) with respect to a taxpayer for all taxable years shall be—

"(A) $30,000,000 with respect to the credit determined under subsection (b)(1)(A), and

"(B) $30,000,000 with respect to the credit determined under subsection (b)(1)(B).

"(2) LIMITATION BASED ON GROSS RECEIPTS.—The credit allowed under subsection (a) with respect to a taxpayer for the taxable year shall not exceed an amount equal to 2 percent of the average annual gross receipts of the taxpayer for the 3 taxable years preceding the taxable year in which the credit is determined.

"(3) GROSS RECEIPTS.—For purposes of this subsection, the rules of paragraphs (2) and (3) of section 448(c) shall apply.

"(d) DEFINITIONS.—For purposes of this section—

"(1) QUALIFIED ENERGY EFFICIENT APPLIANCE.—The term 'qualified energy efficient appliance' means—

"(A) a clothes washer described in subparagraph (A)(i) or (B)(i) of subsection (b)(1), or

"(B) a refrigerator described in subparagraph (A)(ii) or (B)(ii) of subsection (b)(1).

"(2) CLOTHES WASHER.—The term 'clothes washer' means a residential clothes washer, including a residential style coin operated washer.

"(3) REFRIGERATOR.—The term 'refrigerator' means an automatic defrost refrigerator-freezer which has an internal volume of at least 16.5 cubic feet.

"(4) MEF.—The term 'MEF' means Modified Energy Factor (as determined by the Secretary of Energy).

"(e) SPECIAL RULES.—

"(1) IN GENERAL.—Rules similar to the rules of subsections (c), (d), and (e) of section 52 shall apply for purposes of this section.

"(2) AGGREGATION RULES.—All persons treated as a single employer under subsection (a) or (b) of section 52 or subsection (m) or (o) of section 414 shall be treated as 1 person for purposes of subsection (a).

"(f) VERIFICATION.—The taxpayer shall submit such information or certification as the Secretary, in consultation with the Secretary of Energy, determines necessary to claim the credit amount under subsection (a).

"(g) TERMINATION.—This section shall not apply—

"(1) with respect to refrigerators described in subsection (b)(1)(A)(ii) produced after December 31, 2004, and

"(2) with respect to all other qualified energy efficient appliances produced after December 31, 2006.".

(b) LIMITATION ON CARRYBACK.—Section 39(d) (relating to transition rules), as amended by this Act, is amended by adding at the end the following new paragraph:

"(14) NO CARRYBACK OF ENERGY EFFICIENT APPLIANCE CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the energy efficient appliance credit determined under section 45H may be carried to a taxable year ending before January 1, 2003.".

(c) CONFORMING AMENDMENT.—Section 38(b) (relating to general business credit), as amended by this Act, is amended by striking "plus" at the end of paragraph (17), by striking the period at the end of paragraph (18) and inserting ", plus", and by adding at the end the following new paragraph:

"(19) the energy efficient appliance credit determined under section 45H(a).".

(d) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45H. Energy efficient appliance credit.".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to appliances produced after December 31, 2002, in taxable years ending after such date.

SEC. 2103. CREDIT FOR RESIDENTIAL ENERGY EFFICIENT PROPERTY.

(a) IN GENERAL.—Subpart A of part IV of subchapter A of chapter 1 (relating to nonrefundable personal credits) is amended by inserting after section 25B the following new section:

"SEC. 25C. RESIDENTIAL ENERGY EFFICIENT PROPERTY.

"(a) ALLOWANCE OF CREDIT.—In the case of an individual, there shall be allowed as a credit against the tax

imposed by this chapter for the taxable year an amount equal to the sum of—

"(1) 15 percent of the qualified photovoltaic property expenditures made by the taxpayer during such year,

"(2) 15 percent of the qualified solar water heating property expenditures made by the taxpayer during such year,

"(3) 30 percent of the qualified fuel cell property expenditures made by the taxpayer during such year,

"(4) 30 percent of the qualified wind energy property expenditures made by the taxpayer during such year, and

"(5) the sum of the qualified Tier 2 energy efficient building property expenditures made by the taxpayer during such year.

"(b) LIMITATIONS.—

"(1) MAXIMUM CREDIT.—The credit allowed under subsection (a) shall not exceed—

"(A) $2,000 for property described in subsection (d)(1),

"(B) $2,000 for property described in subsection (d)(2),

"(C) $1,000 for each kilowatt of capacity of property described in subsection (d)(4),

"(D) $2,000 for property described in subsection (d)(5), and

"(E) for property described in subsection (d)(6)—

"(i) $75 for each electric heat pump water heater,

"(ii) $250 for each electric heat pump,

"(iii) $250 for each advanced natural gas furnace,

"(iv) $250 for each central air conditioner,

"(v) $75 for each natural gas water heater, and

"(vi) $250 for each geothermal heat pump.

"(2) SAFETY CERTIFICATIONS.—No credit shall be allowed under this section for an item of property unless—

"(A) in the case of solar water heating property, such property is certified for performance and safety by the non-profit Solar Rating Certification Corporation or a comparable entity endorsed by the government of the State in which such property is installed,

"(B) in the case of a photovoltaic property, a fuel cell property, or a wind energy property, such property meets appropriate fire and electric code requirements, and

"(C) in the case of property described in subsection (d)(6), such property meets the performance and quality standards, and the certification requirements (if any), which—

"(i) have been prescribed by the Secretary by regulations (after consultation with the Secretary of Energy or the Administrator of the Environmental Protection Agency, as appropriate),

"(ii) in the case of the energy efficiency ratio (EER)—

"(I) require measurements to be based on published data which is tested by manufacturers at 95 degrees Fahrenheit, and

"(II) do not require ratings to be based on certified data of the Air Conditioning and Refrigeration Institute, and

"(iii) are in effect at the time of the acquisition of the property.

"(c) CARRYFORWARD OF UNUSED CREDIT.—If the credit allowable under subsection (a) exceeds the limitation imposed by section 26(a) for such taxable year reduced by the sum of the credits allowable under this subpart (other than this section and section 25D), such excess shall be carried to the succeeding taxable year and added to the credit allowable under subsection (a) for such succeeding taxable year.

"(d) DEFINITIONS.—For purposes of this section—

"(1) QUALIFIED SOLAR WATER HEATING PROPERTY EXPENDITURE.—The term 'qualified solar water heating property expenditure' means an expenditure for property to heat water for use in a dwelling unit located in the United States and used as a residence by the taxpayer if at least half of the energy used by such property for such purpose is derived from the sun.

"(2) QUALIFIED PHOTOVOLTAIC PROPERTY EXPENDITURE.—The term 'qualified photovoltaic property expenditure' means an expenditure for property that uses solar energy to generate electricity for use in such a dwelling unit.

"(3) SOLAR PANELS.—No expenditure relating to a solar panel or other property installed as a roof (or portion thereof) shall fail to be treated as property de-

scribed in paragraph (1) or (2) solely because it constitutes a structural component of the structure on which it is installed.

"(4) QUALIFIED FUEL CELL PROPERTY EXPENDITURE.—The term 'qualified fuel cell property expenditure' means an expenditure for qualified fuel cell property (as defined in section 48(a)(4)) installed on or in connection with such a dwelling unit.

"(5) QUALIFIED WIND ENERGY PROPERTY EXPENDITURE.—The term 'qualified wind energy property expenditure' means an expenditure for property which uses wind energy to generate electricity for use in such a dwelling unit.

"(6) QUALIFIED TIER 2 ENERGY EFFICIENT BUILDING PROPERTY EXPENDITURE.—

"(A) IN GENERAL.—The term 'qualified Tier 2 energy efficient building property expenditure' means an expenditure for any Tier 2 energy efficient building property.

"(B) TIER 2 ENERGY EFFICIENT BUILDING PROPERTY.—The term 'Tier 2 energy efficient building property' means—

"(i) an electric heat pump water heater which yields an energy factor of at least 1.7

in the standard Department of Energy test procedure,

"(ii) an electric heat pump which has a heating seasonal performance factor (HSPF) of at least 9, a seasonal energy efficiency ratio (SEER) of at least 15, and an energy efficiency ratio (EER) of at least 12.5,

"(iii) an advanced natural gas furnace which achieves at least 95 percent annual fuel utilization efficiency (AFUE),

"(iv) a central air conditioner which has a seasonal energy efficiency ratio (SEER) of at least 15 and an energy efficiency ratio (EER) of at least 12.5,

"(v) a natural gas water heater which has an energy factor of at least 0.80 in the standard Department of Energy test procedure, and

"(vi) a geothermal heat pump which has an energy efficiency ratio (EER) of at least 21.

"(7) LABOR COSTS.—Expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the property de-

scribed in paragraph (1), (2), (4), (5), or (6) and for piping or wiring to interconnect such property to the dwelling unit shall be taken into account for purposes of this section.

"(8) SWIMMING POOLS, ETC., USED AS STORAGE MEDIUM.—Expenditures which are properly allocable to a swimming pool, hot tub, or any other energy storage medium which has a function other than the function of such storage shall not be taken into account for purposes of this section.

"(e) SPECIAL RULES.—For purposes of this section—

"(1) DOLLAR AMOUNTS IN CASE OF JOINT OCCUPANCY.—In the case of any dwelling unit which is jointly occupied and used during any calendar year as a residence by 2 or more individuals the following shall apply:

"(A) The amount of the credit allowable, under subsection (a) by reason of expenditures (as the case may be) made during such calendar year by any of such individuals with respect to such dwelling unit shall be determined by treating all of such individuals as 1 taxpayer whose taxable year is such calendar year.

"(B) There shall be allowable, with respect to such expenditures to each of such individuals,

a credit under subsection (a) for the taxable year in which such calendar year ends in an amount which bears the same ratio to the amount determined under subparagraph (A) as the amount of such expenditures made by such individual during such calendar year bears to the aggregate of such expenditures made by all of such individuals during such calendar year.

"(2) TENANT-STOCKHOLDER IN COOPERATIVE HOUSING CORPORATION.—In the case of an individual who is a tenant-stockholder (as defined in section 216) in a cooperative housing corporation (as defined in such section), such individual shall be treated as having made his tenant-stockholder's proportionate share (as defined in section 216(b)(3)) of any expenditures of such corporation.

"(3) CONDOMINIUMS.—

"(A) IN GENERAL.—In the case of an individual who is a member of a condominium management association with respect to a condominium which the individual owns, such individual shall be treated as having made the individual's proportionate share of any expenditures of such association.

"(B) CONDOMINIUM MANAGEMENT ASSOCIATION.—For purposes of this paragraph, the term 'condominium management association' means an organization which meets the requirements of paragraph (1) of section 528(c) (other than subparagraph (E) thereof) with respect to a condominium project substantially all of the units of which are used as residences.

"(4) ALLOCATION IN CERTAIN CASES.—Except in the case of qualified wind energy property expenditures, if less than 80 percent of the use of an item is for nonbusiness purposes, only that portion of the expenditures for such item which is properly allocable to use for nonbusiness purposes shall be taken into account.

"(5) WHEN EXPENDITURE MADE; AMOUNT OF EXPENDITURE.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), an expenditure with respect to an item shall be treated as made when the original installation of the item is completed.

"(B) EXPENDITURES PART OF BUILDING CONSTRUCTION.—In the case of an expenditure in connection with the construction or reconstruction of a structure, such expenditure shall be

treated as made when the original use of the constructed or reconstructed structure by the taxpayer begins.

"(C) AMOUNT.—The amount of any expenditure shall be the cost thereof.

"(6) PROPERTY FINANCED BY SUBSIDIZED ENERGY FINANCING.—For purposes of determining the amount of expenditures made by any individual with respect to any dwelling unit, there shall not be taken in to account expenditures which are made from subsidized energy financing (as defined in section 48(a)(5)(C)).

"(f) BASIS ADJUSTMENTS.—For purposes of this subtitle, if a credit is allowed under this section for any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.

"(g) TERMINATION.—The credit allowed under this section shall not apply to expenditures after December 31, 2007.".

(b) CREDIT ALLOWED AGAINST REGULAR TAX AND ALTERNATIVE MINIMUM TAX.—

(1) IN GENERAL.—Section 25C(b), as added by subsection (a), is amended by adding at the end the following new paragraph:

"(3) LIMITATION BASED ON AMOUNT OF TAX.—The credit allowed under subsection (a) for the taxable year shall not exceed the excess of—

"(A) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

"(B) the sum of the credits allowable under this subpart (other than this section and section 25D) and section 27 for the taxable year.".

(2) CONFORMING AMENDMENTS.—

(A) Section 25C(c), as added by subsection (a), is amended by striking "section 26(a) for such taxable year reduced by the sum of the credits allowable under this subpart (other than this section and section 25D)" and inserting "subsection (b)(3)".

(B) Section 23(b)(4)(B) is amended by inserting "and section 25C" after "this section".

(C) Section 24(b)(3)(B) is amended by striking "23 and 25B" and inserting "23, 25B, and 25C".

(D) Section 25(e)(1)(C) is amended by inserting "25C," after "25B,".

(E) Section 25B(g)(2) is amended by striking "section 23" and inserting "sections 23 and 25C".

(F) Section 26(a)(1) is amended by striking "and 25B" and inserting "25B, and 25C".

(G) Section 904(h) is amended by striking "and 25B" and inserting "25B, and 25C".

(H) Section 1400C(d) is amended by striking "and 25B" and inserting "25B, and 25C".

(c) ADDITIONAL CONFORMING AMENDMENTS.—

(1) Section 23(c), as in effect for taxable years beginning before January 1, 2004, is amended by striking "section 1400C" and inserting "sections 25C and 1400C".

(2) Section 25(e)(1)(C), as in effect for taxable years beginning before January 1, 2004, is amended by inserting ", 25Cs," after "sections 23".

(3) Subsection (a) of section 1016, as amended by this Act, is amended by striking "and" at the end of paragraph (29), by striking the period at the end of paragraph (30) and inserting ", and", and by adding at the end the following new paragraph:

"(31) to the extent provided in section 25C(f), in the case of amounts with respect to which a credit has been allowed under section 25C.".

(4) Section 1400C(d), as in effect for taxable years beginning before January 1, 2004, is amended by inserting "and section 25C" after "this section".

(5) The table of sections for subpart A of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 25B the following new item:

"Sec. 25C. Residential energy efficient property.".

(d) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided by paragraph (2), the amendments made by this section shall apply to expenditures after December 31, 2002, in taxable years ending after such date.

(2) SUBSECTION (b).—The amendments made by subsection (b) shall apply to taxable years beginning after December 31, 2003.

SEC. 2104. CREDIT FOR BUSINESS INSTALLATION OF QUALIFIED FUEL CELLS AND STATIONARY MICROTURBINE POWER PLANTS.

(a) IN GENERAL.—Subparagraph (A) of section 48(a)(3) (defining energy property) is amended by striking "or" at the end of clause (i), by adding "or" at the end

of clause (ii), and by inserting after clause (ii) the following new clause:

"(iii) qualified fuel cell property or qualified microturbine property,".

(b) QUALIFIED FUEL CELL PROPERTY; QUALIFIED MICROTURBINE PROPERTY.—Subsection (a) of section 48 is amended by redesignating paragraphs (4) and (5) as paragraphs (5) and (6), respectively, and by inserting after paragraph (3) the following new paragraph:

"(4) QUALIFIED FUEL CELL PROPERTY; QUALIFIED MICROTURBINE PROPERTY.—For purposes of this subsection—

"(A) QUALIFIED FUEL CELL PROPERTY.—

"(i) IN GENERAL.—The term 'qualified fuel cell property' means a fuel cell power plant that—

"(I) generates at least 0.5 kilowatt of electricity using an electrochemical process, and

"(II) has an electricity-only generation efficiency greater than 30 percent.

"(ii) LIMITATION.—In the case of qualified fuel cell property placed in service during the taxable year, the credit deter-

mined under paragraph (1) for such year with respect to such property shall not exceed an amount equal to the lesser of—

"(I) 30 percent of the basis of such property, or

"(II) $500 for each 0.5 kilowatt of capacity of such property.

"(iii) FUEL CELL POWER PLANT.—The term 'fuel cell power plant' means an integrated system comprised of a fuel cell stack assembly and associated balance of plant components that converts a fuel into electricity using electrochemical means.

"(iv) TERMINATION.—Such term shall not include any property placed in service after December 31, 2007.

"(B) QUALIFIED MICROTURBINE PROPERTY.—

"(i) IN GENERAL.—The term "qualified microturbine property' means a stationary microturbine power plant which has an electricity-only generation efficiency not less than 26 percent at International Standard Organization conditions.

"(ii) LIMITATION.—In the case of qualified microturbine property placed in service during the taxable year, the credit determined under paragraph (1) for such year with respect to such property shall not exceed an amount equal to the lesser of—

"(I) 10 percent of the basis of such property, or

"(II) $200 for each kilowatt of capacity of such property.

"(iii) STATIONARY MICROTURBINE POWER PLANT.—The term 'stationary microturbine power plant means a system comprising of a rotary engine which is actuated by the aerodynamic reaction or impulse or both on radial or axial curved full-circumferential-admission airfoils on a central axial rotating spindle. Such system—

"(I) commonly includes an air compressor, combustor, gas pathways which lead compressed air to the combustor and which lead hot combusted gases from the combustor to 1 or more rotating turbine spools, which in turn

drive the compressor and power output shaft,

"(II) includes a fuel compressor, recuperator/regenerator, generator or alternator, integrated combined cycle equipment, cooling-heating-and-power equipment, sound attenuation apparatus, and power conditioning equipment, and

"(III) includes all secondary components located between the existing infrastructure for fuel delivery and the existing infrastructure for power distribution, including equipment and controls for meeting relevant power standards, such as voltage, frequency, and power factors.

"(iv) TERMINATION.—Such term shall not include any property placed in service after December 31, 2006.".

(c) LIMITATION.—Section 48(a)(2)(A) (relating to energy percentage) is amended to read as follows:

"(A) IN GENERAL.—The energy percentage is—

"(i) in the case of qualified fuel cell property, 30 percent, and

"(ii) in the case of any other energy property, 10 percent.".

(d) CONFORMING AMENDMENTS.—

(A) Section 29(b)(3)(A)(i)(III) is amended by striking "section 48(a)(4)(C)" and inserting "section 48(a)(5)(C)".

(B) Section 48(a)(1) is amended by inserting "except as provided in subparagraph (A)(ii) or (B)(ii) of paragraph (4)," before "the energy".

(e) EFFECTIVE DATE.—The amendments made by this subsection shall apply to property placed in service after December 31, 2002, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

SEC. 2105. ENERGY EFFICIENT COMMERCIAL BUILDINGS DEDUCTION.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1 is amended by inserting after section 179A the following new section:

"SEC. 179B. ENERGY EFFICIENT COMMERCIAL BUILDINGS DEDUCTION.

"(a) IN GENERAL.—There shall be allowed as a deduction for the taxable year an amount equal to the energy efficient commercial building property expenditures made by a taxpayer for the taxable year.

"(b) MAXIMUM AMOUNT OF DEDUCTION.—The amount of energy efficient commercial building property expenditures taken into account under subsection (a) shall not exceed an amount equal to the product of—

"(1) $2.25, and

"(2) the square footage of the building with respect to which the expenditures are made.

"(c) YEAR DEDUCTION ALLOWED.—The deduction under subsection (a) shall be allowed in the taxable year in which the construction of the building is completed.

"(d) ENERGY EFFICIENT COMMERCIAL BUILDING PROPERTY EXPENDITURES.—For purposes of this section—

"(1) IN GENERAL.—The term 'energy efficient commercial building property expenditures' means an amount paid or incurred for energy efficient commercial building property installed on or in connection with new construction or reconstruction of property—

"(A) for which depreciation is allowable under section 167,

"(B) which is located in the United States, and

"(C) the construction or erection of which is completed by the taxpayer.

Such property includes all residential rental property, including low-rise multifamily structures and single family housing property which is not within the scope of Standard 90.1–1999 (described in paragraph (2)). Such term includes expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the property.

"(2) ENERGY EFFICIENT COMMERCIAL BUILDING PROPERTY.—For purposes of paragraph (1)—

"(A) IN GENERAL.—The term 'energy efficient commercial building property' means any property which reduces total annual energy and power costs with respect to the lighting, heating, cooling, ventilation, and hot water supply systems of the building by 50 percent or more in comparison to a reference building which meets the requirements of Standard 90.1–1999 of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America using methods of calculation under subpara-

graph (B) and certified by qualified professionals as provided under paragraph (5).

"(B) METHODS OF CALCULATION.—The Secretary, in consultation with the Secretary of Energy, shall promulgate regulations which describe in detail methods for calculating and verifying energy and power consumption and cost, taking into consideration the provisions of the 2001 California Nonresidential Alternative Calculation Method Approval Manual. These regulations shall meet the following requirements:

"(i) In calculating tradeoffs and energy performance, the regulations shall prescribe the costs per unit of energy and power, such as kilowatt hour, kilowatt, gallon of fuel oil, and cubic foot or Btu of natural gas, which may be dependent on time of usage.

"(ii) The calculational methodology shall require that compliance be demonstrated for a whole building. If some systems of the building, such as lighting, are designed later than other systems of the building, the method shall provide that either—

"(I) the expenses taken into account under paragraph (1) shall not occur until the date designs for all energy-using systems of the building are completed,

"(II) the energy performance of all systems and components not yet designed shall be assumed to comply minimally with the requirements of such Standard 90.1–1999, or

"(III) the expenses taken into account under paragraph (1) shall be a fraction of such expenses based on the performance of less than all energy-using systems in accordance with clause (iii).

"(iii) The expenditures in connection with the design of subsystems in the building, such as the envelope, the heating, ventilation, air conditioning and water heating system, and the lighting system shall be allocated to the appropriate building subsystem based on system-specific energy cost savings targets in regulations promulgated by the Secretary of Energy which are equiv-

alent, using the calculation methodology, to the whole building requirement of 50 percent savings.

"(iv) The calculational methods under this subparagraph need not comply fully with section 11 of such Standard 90.1–1999.

"(v) The calculational methods shall be fuel neutral, such that the same energy efficiency features shall qualify a building for the deduction under this subsection regardless of whether the heating source is a gas or oil furnace or an electric heat pump.

"(vi) The calculational methods shall provide appropriate calculated energy savings for design methods and technologies not otherwise credited in either such Standard 90.1–1999 or in the 2001 California Nonresidential Alternative Calculation Method Approval Manual, including the following:

"(I) Natural ventilation.

"(II) Evaporative cooling.

"(III) Automatic lighting controls such as occupancy sensors, photocells, and timeclocks.

"(IV) Daylighting.

"(V) Designs utilizing semi-conditioned spaces that maintain adequate comfort conditions without air conditioning or without heating.

"(VI) Improved fan system efficiency, including reductions in static pressure.

"(VII) Advanced unloading mechanisms for mechanical cooling, such as multiple or variable speed compressors.

"(VIII) The calculational methods may take into account the extent of commissioning in the building, and allow the taxpayer to take into account measured performance that exceeds typical performance.

"(C) COMPUTER SOFTWARE.—

"(i) IN GENERAL.—Any calculation under this paragraph shall be prepared by qualified computer software.

"(ii) QUALIFIED COMPUTER SOFTWARE.—For purposes of this subparagraph, the term 'qualified computer software' means software—

"(I) for which the software designer has certified that the software meets all procedures and detailed methods for calculating energy and power consumption and costs as required by the Secretary,

"(II) which provides such forms as required to be filed by the Secretary in connection with energy efficiency of property and the deduction allowed under this subsection, and

"(III) which provides a notice form which summarizes the energy efficiency features of the building and its projected annual energy costs.

"(3) ALLOCATION OF DEDUCTION FOR PUBLIC PROPERTY.—In the case of energy efficient commercial building property installed on or in public property, the Secretary shall promulgate a regulation to allow the allocation of the deduction to the person primarily responsible for designing the property in lieu of the public entity which is the owner of such property. Such person shall be treated as the taxpayer for purposes of this subsection.

"(4) NOTICE TO OWNER.—The qualified individual shall provide an explanation to the owner of the building regarding the energy efficiency features of the building and its projected annual energy costs as provided in the notice under paragraph (2)(C)(ii)(III).

"(5) CERTIFICATION.—

"(A) IN GENERAL.—Except as provided in this paragraph, the Secretary shall prescribe procedures for the inspection and testing for compliance of buildings that are comparable, given the difference between commercial and residential buildings, to the requirements in the Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems.

"(B) QUALIFIED INDIVIDUALS.—Individuals qualified to determine compliance shall be only those individuals who are recognized by an organization certified by the Secretary for such purposes. The Secretary may qualify a Home Ratings Systems Organization, a local building code agency, a State or local energy office, a utility, or any other organization which meets the requirements prescribed under this section.

"(C) PROFICIENCY OF QUALIFIED INDIVIDUALS.—The Secretary shall consult with nonprofit organizations and State agencies with expertise in energy efficiency calculations and inspections to develop proficiency tests and training programs to qualify individuals to determine compliance.

"(e) BASIS REDUCTION.—For purposes of this subtitle, if a deduction is allowed under this section with respect to any energy efficient commercial building property, the basis of such property shall be reduced by the amount of the deduction so allowed.

"(f) REGULATIONS.—The Secretary shall promulgate such regulations as necessary to take into account new technologies regarding energy efficiency and renewable energy for purposes of determining energy efficiency and savings under this section.

"(g) TERMINATION.—This section shall not apply with respect to any energy efficient commercial building property expenditures in connection with property—

"(1) the plans for which are not certified under subsection (d)(5) on or before December 31, 2007, and

"(2) the construction of which is not completed on or before December 31, 2009.".

(b) CONFORMING AMENDMENTS.—

(1) Section 1016(a), as amended by this Act, is amended by striking "and" at the end of paragraph (30), by striking the period at the end of paragraph (31) and inserting ", and", and by adding at the end the following new paragraph:

"(32) to the extent provided in section 179B(e).".

(2) Section 1245(a) is amended by inserting "179B," after "179A," both places it appears in paragraphs (2)(C) and (3)(C).

(3) Section 1250(b)(3) is amended by inserting before the period at the end of the first sentence "or by section 179B".

(4) Section 263(a)(1) is amended by striking "or" at the end of subparagraph (G), by striking the period at the end of subparagraph (H) and inserting ", or", and by inserting after subparagraph (H) the following new subparagraph:

"(I) expenditures for which a deduction is allowed under section 179B.".

(5) Section 312(k)(3)(B) is amended by striking "or 179A" each place it appears in the heading and text and inserting ", 179A, or 179B".

(c) CLERICAL AMENDMENT.—The table of sections for part VI of subchapter B of chapter 1 is amended by inserting after section 179A the following new item:

"Sec. 179B. Energy efficient commercial buildings deduction.".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after September 30, 2002.

SEC. 2106. ALLOWANCE OF DEDUCTION FOR QUALIFIED NEW OR RETROFITTED ENERGY MANAGEMENT DEVICES.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1 (relating to itemized deductions for individuals and corporations), as amended by this Act, is amended by inserting after section 179B the following new section:

"SEC. 179C. DEDUCTION FOR QUALIFIED NEW OR RETROFITTED ENERGY MANAGEMENT DEVICES.

"(a) ALLOWANCE OF DEDUCTION.—In the case of a taxpayer who is a supplier of electric energy or natural gas or a provider of electric energy or natural gas services, there shall be allowed as a deduction an amount equal to the cost of each qualified energy management device placed in service during the taxable year.

"(b) MAXIMUM DEDUCTION.—The deduction allowed by this section with respect to each qualified energy management device shall not exceed $30.

"(c) QUALIFIED ENERGY MANAGEMENT DEVICE.—The term 'qualified energy management device' means any tangible property to which section 168 applies if such property is a meter or metering device—

"(1) which is acquired and used by the taxpayer to enable consumers to manage their purchase or use of electricity or natural gas in response to energy price and usage signals, and

"(2) which permits reading of energy price and usage signals on at least a daily basis.

"(d) PROPERTY USED OUTSIDE THE UNITED STATES NOT QUALIFIED.—No deduction shall be allowed under subsection (a) with respect to property which is used predominantly outside the United States or with respect to the portion of the cost of any property taken into account under section 179.

"(e) BASIS REDUCTION.—

"(1) IN GENERAL.—For purposes of this title, the basis of any property shall be reduced by the amount of the deduction with respect to such property which is allowed by subsection (a).

"(2) ORDINARY INCOME RECAPTURE.—For purposes of section 1245, the amount of the deduction allowable under subsection (a) with respect to any property that is of a character subject to the allowance for depreciation shall be treated as a deduction allowed for depreciation under section 167.".

(b) CONFORMING AMENDMENTS.—

(1) Section 263(a)(1), as amended by this Act, is amended by striking "or" at the end of subparagraph (H), by striking the period at the end of subparagraph (I) and inserting ", or", and by inserting after subparagraph (I) the following new subparagraph:

"(J) expenditures for which a deduction is allowed under section 179C.".

(2) Section 312(k)(3)(B), as amended by this Act, is amended by striking "or 179B" each place it appears in the heading and text and inserting ", 179B, or 179C".

(3) Section 1016(a), as amended by this Act, is amended by striking "and" at the end of paragraph (31), by striking the period at the end of paragraph (32) and inserting ", and", and by adding at the end the following new paragraph:

"(33) to the extent provided in section 179C(e)(1).".

(4) Section 1245(a), as amended by this Act, is amended by inserting "179C," after "179B," both places it appears in paragraphs (2)(C) and (3)(C).

(5) The table of contents for subpart B of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 179B the following new item:

"Sec. 179C. Deduction for qualified new or retrofitted energy management devices.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to qualified energy management devices placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 2107. THREE-YEAR APPLICABLE RECOVERY PERIOD FOR DEPRECIATION OF QUALIFIED ENERGY MANAGEMENT DEVICES.

(a) IN GENERAL.—Subparagraph (A) of section 168(e)(3) (relating to classification of property) is amended by striking "and" at the end of clause (ii), by striking the period at the end of clause (iii) and inserting ", and", and by adding at the end the following new clause:

"(iv) any qualified energy management device.".

(b) DEFINITION OF QUALIFIED ENERGY MANAGEMENT DEVICE.—Section 168(i) (relating to definitions and special rules) is amended by inserting at the end the following new paragraph:

"(15) QUALIFIED ENERGY MANAGEMENT DEVICE.—The term 'qualified energy management device' means any qualified energy management device as defined in section 179C(c) which is placed in service by a taxpayer who is a supplier of electric energy

or natural gas or a provider of electric energy or natural gas services.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 2108. ENERGY CREDIT FOR COMBINED HEAT AND POWER SYSTEM PROPERTY.

(a) IN GENERAL.—Subparagraph (A) of section 48(a)(3) (defining energy property), as amended by this Act, is amended by striking "or" at the end of clause (ii), by adding "or" at the end of clause (iii), and by inserting after clause (iii) the following new clause:

"(iv) combined heat and power system property,".

(b) COMBINED HEAT AND POWER SYSTEM PROPERTY.—Subsection (a) of section 48, as amended by this Act, is amended by redesignating paragraphs (5) and (6) as paragraphs (6) and (7), respectively, and by inserting after paragraph (4) the following new paragraph:

"(5) COMBINED HEAT AND POWER SYSTEM PROPERTY.—For purposes of this subsection—

"(A) COMBINED HEAT AND POWER SYSTEM PROPERTY.—The term 'combined heat and power

system property' means property comprising a system—

"(i) which uses the same energy source for the simultaneous or sequential generation of electrical power, mechanical shaft power, or both, in combination with the generation of steam or other forms of useful thermal energy (including heating and cooling applications),

"(ii) which has an electrical capacity of more than 50 kilowatts or a mechanical energy capacity of more than 67 horsepower or an equivalent combination of electrical and mechanical energy capacities,

"(iii) which produces—

"(I) at least 20 percent of its total useful energy in the form of thermal energy, and

"(II) at least 20 percent of its total useful energy in the form of electrical or mechanical power (or combination thereof),

"(iv) the energy efficiency percentage of which exceeds 60 percent (70 percent in the case of a system with an electrical ca-

pacity in excess of 50 megawatts or a mechanical energy capacity in excess of 67,000 horsepower, or an equivalent combination of electrical and mechanical energy capacities), and

"(v) which is placed in service after December 31, 2002, and before January 1, 2007.

"(B) SPECIAL RULES.—

"(i) ENERGY EFFICIENCY PERCENTAGE.—For purposes of subparagraph (A)(iv), the energy efficiency percentage of a system is the fraction—

"(I) the numerator of which is the total useful electrical, thermal, and mechanical power produced by the system at normal operating rates, and expected to be consumed in its normal application, and

"(II) the denominator of which is the lower heating value of the primary fuel source for the system.

"(ii) DETERMINATIONS MADE ON BTU BASIS.—The energy efficiency percentage

and the percentages under subparagraph (A)(iii) shall be determined on a Btu basis.

"(iii) INPUT AND OUTPUT PROPERTY NOT INCLUDED.—The term 'combined heat and power system property' does not include property used to transport the energy source to the facility or to distribute energy produced by the facility.

"(iv) PUBLIC UTILITY PROPERTY.—

"(I) ACCOUNTING RULE FOR PUBLIC UTILITY PROPERTY.—If the combined heat and power system property is public utility property (as defined in section 168(i)(10)), the taxpayer may only claim the credit under the subsection if, with respect to such property, the taxpayer uses a normalization method of accounting.

"(II) CERTAIN EXCEPTION NOT TO APPLY.—The matter following paragraph (3)(D) shall not apply to combined heat and power system property.

"(v) NONAPPLICATION OF CERTAIN RULES.—For purposes of determining if the term 'combined heat and power system

property' includes technologies which generate electricity or mechanical power using back-pressure steam turbines in place of existing pressure-reducing valves or which make use of waste heat from industrial processes such as by using organic rankin, stirling, or kalina heat engine systems, subparagraph (A) shall be applied without regard to clauses (iii) and (iv) thereof.

"(C) EXTENSION OF DEPRECIATION RECOVERY PERIOD.—If a taxpayer is allowed credit under this section for combined heat and power system property and such property would (but for this subparagraph) have a class life of 15 years or less under section 168, such property shall be treated as having a 22-year class life for purposes of section 168.".

(c) NO CARRYBACK OF ENERGY CREDIT BEFORE EFFECTIVE DATE.—Subsection (d) of section 39, as amended by this Act, is amended by adding at the end the following new paragraph:

"(15) NO CARRYBACK OF ENERGY CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the energy credit with respect to property

described in section 48(a)(5) may be carried back to a taxable year ending before January 1, 2003.".

(d) CONFORMING AMENDMENTS.—

(A) Section 25C(e)(6), as added by this Act, is amended by striking "section 48(a)(5)(C)" and inserting "section 48(a)(6)(C)".

(B) Section 29(b)(3)(A)(i)(III), as amended by this Act, is amended by striking "section 48(a)(5)(C)" and inserting "section 48(a)(6)(C)".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after December 31, 2002, in taxable years ending after such date.

SEC. 2109. CREDIT FOR ENERGY EFFICIENCY IMPROVEMENTS TO EXISTING HOMES.

(a) IN GENERAL.—Subpart A of part IV of subchapter A of chapter 1 (relating to nonrefundable personal credits), as amended by this Act, is amended by inserting after section 25C the following new section:

"SEC. 25D. ENERGY EFFICIENCY IMPROVEMENTS TO EXISTING HOMES.

"(a) ALLOWANCE OF CREDIT.—In the case of an individual, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to 10 percent of the amount paid or incurred by the

taxpayer for qualified energy efficiency improvements installed during such taxable year.

"(b) LIMITATIONS.—

"(1) MAXIMUM CREDIT.—The credit allowed by this section with respect to a dwelling shall not exceed $300.

"(2) PRIOR CREDIT AMOUNTS FOR TAXPAYER ON SAME DWELLING TAKEN INTO ACCOUNT.—If a credit was allowed to the taxpayer under subsection (a) with respect to a dwelling in 1 or more prior taxable years, the amount of the credit otherwise allowable for the taxable year with respect to that dwelling shall not exceed the amount of $300 reduced by the sum of the credits allowed under subsection (a) to the taxpayer with respect to the dwelling for all prior taxable years.

"(c) CARRYFORWARD OF UNUSED CREDIT.—If the credit allowable under subsection (a) exceeds the limitation imposed by section 26(a) for such taxable year reduced by the sum of the credits allowable under this subpart (other than this section) for any taxable year, such excess shall be carried to the succeeding taxable year and added to the credit allowable under subsection (a) for such succeeding taxable year.

"(d) QUALIFIED ENERGY EFFICIENCY IMPROVEMENTS.—For purposes of this section, the term 'qualified energy efficiency improvements' means any energy efficient building envelope component which is certified to meet or exceed the prescriptive criteria for such component in the 2000 International Energy Conservation Code, any energy efficient building envelope component which is described in subsection (f)(4)(B) and is certified by the Energy Star program managed jointly by the Environmental Protection Agency and the Department of Energy, or any combination of energy efficiency measures which are certified as achieving at least a 30 percent reduction in heating and cooling energy usage for the dwelling (as measured in terms of energy cost to the taxpayer), if—

"(1) such component or combination of measures is installed in or on a dwelling—

"(A) located in the United States, and

"(B) owned and used by the taxpayer as the taxpayer's principal residence (within the meaning of section 121),

"(2) the original use of such component or combination of measures commences with the taxpayer, and

"(3) such component or combination of measures reasonably can be expected to remain in use for at least 5 years.

"(e) CERTIFICATION.—

"(1) METHODS OF CERTIFICATION.—

"(A) COMPONENT-BASED METHOD.—The certification described in subsection (d) for any component described in such subsection shall be determined on the basis of applicable energy efficiency ratings (including product labeling requirements) for affected building envelope components.

"(B) PERFORMANCE-BASED METHOD.—

"(i) IN GENERAL.—The certification described in subsection (d) for any combination of measures described in such subsection shall be—

"(I) determined by comparing the projected heating and cooling energy usage for the dwelling to such usage for such dwelling in its original condition, and

"(II) accompanied by a written analysis documenting the proper application of a permissible energy per-

formance calculation method to the specific circumstances of such dwelling.

"(ii) COMPUTER SOFTWARE.—Computer software shall be used in support of a performance-based method certification under clause (i). Such software shall meet procedures and methods for calculating energy and cost savings in regulations promulgated by the Secretary of Energy. Such regulations on the specifications for software and verification protocols shall be based on the 2001 California Residential Alternative Calculation Method Approval Manual.

"(2) PROVIDER.—A certification described in subsection (d) shall be provided by—

"(A) in the case of the method described in paragraph (1)(A), by a third party, such as a local building regulatory authority, a utility, a manufactured home production inspection primary inspection agency (IPIA), or a home energy rating organization, or

"(B) in the case of the method described in paragraph (1)(B), an individual recognized by an organization designated by the Secretary for such purposes.

"(3) FORM.—A certification described in subsection (d) shall be made in writing on forms which specify in readily inspectable fashion the energy efficient components and other measures and their respective efficiency ratings, and which include a permanent label affixed to the electrical distribution panel of the dwelling.

"(4) REGULATIONS.—

"(A) IN GENERAL.—In prescribing regulations under this subsection for certification methods described in paragraph (1)(B), the Secretary, after examining the requirements for energy consultants and home energy ratings providers specified by the Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems, shall prescribe procedures for calculating annual energy usage and cost reductions for heating and cooling and for the reporting of the results. Such regulations shall—

"(i) provide that any calculation procedures be fuel neutral such that the same energy efficiency measures allow a dwelling to be eligible for the credit under this section regardless of whether such dwelling uses

a gas or oil furnace or boiler or an electric heat pump, and

"(ii) require that any computer software allow for the printing of the Federal tax forms necessary for the credit under this section and for the printing of forms for disclosure to the owner of the dwelling.

"(B) PROVIDERS.—For purposes of paragraph (2)(B), the Secretary shall establish requirements for the designation of individuals based on the requirements for energy consultants and home energy raters specified by the Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems.

"(f) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) DOLLAR AMOUNTS IN CASE OF JOINT OCCUPANCY.—In the case of any dwelling unit which is jointly occupied and used during any calendar year as a residence by 2 or more individuals the following shall apply:

"(A) The amount of the credit allowable under subsection (a) by reason of expenditures for the qualified energy efficiency improvements made during such calendar year by any of such

individuals with respect to such dwelling unit shall be determined by treating all of such individuals as 1 taxpayer whose taxable year is such calendar year.

"(B) There shall be allowable, with respect to such expenditures to each of such individuals, a credit under subsection (a) for the taxable year in which such calendar year ends in an amount which bears the same ratio to the amount determined under subparagraph (A) as the amount of such expenditures made by such individual during such calendar year bears to the aggregate of such expenditures made by all of such individuals during such calendar year.

"(2) TENANT-STOCKHOLDER IN COOPERATIVE HOUSING CORPORATION.—In the case of an individual who is a tenant-stockholder (as defined in section 216) in a cooperative housing corporation (as defined in such section), such individual shall be treated as having paid his tenant-stockholder's proportionate share (as defined in section 216(b)(3)) of the cost of qualified energy efficiency improvements made by such corporation.

"(3) CONDOMINIUMS.—

"(A) IN GENERAL.—In the case of an individual who is a member of a condominium management association with respect to a condominium which the individual owns, such individual shall be treated as having paid the individual's proportionate share of the cost of qualified energy efficiency improvements made by such association.

"(B) CONDOMINIUM MANAGEMENT ASSOCIATION.—For purposes of this paragraph, the term 'condominium management association' means an organization which meets the requirements of paragraph (1) of section 528(c) (other than subparagraph (E) thereof) with respect to a condominium project substantially all of the units of which are used as residences.

"(4) BUILDING ENVELOPE COMPONENT.—The term 'building envelope component' means—

"(A) insulation material or system which is specifically and primarily designed to reduce the heat loss or gain or a dwelling when installed in or on such dwelling,

"(B) exterior windows (including skylights), and

"(C) exterior doors.

"(5) MANUFACTURED HOMES INCLUDED.—For purposes of this section, the term 'dwelling' includes a manufactured home which conforms to Federal Manufactured Home Construction and Safety Standards (24 C.F.R. 3280).

"(g) BASIS ADJUSTMENT.—For purposes of this subtitle, if a credit is allowed under this section for any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.

"(h) APPLICATION OF SECTION.—Subsection (a) shall apply to qualified energy efficiency improvements installed during the period beginning on the date of the enactment of this section and ending on December 31, 2006.".

(b) CREDIT ALLOWED AGAINST REGULAR TAX AND ALTERNATIVE MINIMUM TAX.—

(1) IN GENERAL.—Section 25D(b), as added by subsection (a), is amended by adding at the end the following new paragraph:

"(3) LIMITATION BASED ON AMOUNT OF TAX.—The credit allowed under subsection (a) for the taxable year shall not exceed the excess of—

"(A) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

"(B) the sum of the credits allowable under this subpart (other than this section) and section 27 for the taxable year.".

(2) CONFORMING AMENDMENTS.—

(A) Section 25D(c), as added by subsection (a), is amended by striking "section 26(a) for such taxable year reduced by the sum of the credits allowable under this subpart (other than this section)" and inserting "subsection (b)(3)".

(B) Section 23(b)(4)(B), as amended by this Act, is amended by striking "section 25C" and inserting "sections 25C and 25D".

(C) Section 24(b)(3)(B), as amended by this Act, is amended by striking "and 25C" and inserting "25C, and 25D".

(D) Section 25(e)(1)(C), as amended by this Act, is amended by inserting "25D," after "25C,".

(E) Section 25B(g)(2), as amended by this Act, is amended by striking "23 and 25C" and inserting "23, 25C, and 25D".

(F) Section 26(a)(1), as amended by this Act, is amended by striking "and 25C" and inserting "25C, and 25D".

(G) Section 904(h), as amended by this Act, is amended by striking "and 25C" and inserting "25C, and 25D".

(H) Section 1400C(d), as amended by this Act, is amended by striking "and 25C" and inserting "25C, and 25D".

(c) ADDITIONAL CONFORMING AMENDMENTS.—

(1) Section 23(c), as in effect for taxable years beginning before January 1, 2004, and as amended by this Act, is amended by inserting ", 25D," after "sections 25C".

(2) Section 25(e)(1)(C), as in effect for taxable years beginning before January 1, 2004, and as amended by this Act, is amended by inserting "25D," after "25C,".

(3) Subsection (a) of section 1016, as amended by this Act, is amended by striking "and" at the end of paragraph (32), by striking the period at the end of paragraph (33) and inserting "; and", and by adding at the end the following new paragraph:

"(34) to the extent provided in section 25D(f), in the case of amounts with respect to which a credit has been allowed under section 25D.".

(4) Section 1400C(d), as in effect for taxable years beginning before January 1, 2004, and as amended by this Act, is amended by striking "section 25C" and inserting "sections 25C and 25D".

(5) The table of sections for subpart A of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 25C the following new item:

"Sec. 25D. Energy efficiency improvements to existing homes.".

(d) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided by paragraph (2), the amendments made by this section shall apply to expenditures after December 31, 2002, in taxable years ending after such date.

(2) SUBSECTION (b).—The amendments made by subsection (b) shall apply to taxable years beginning after December 31, 2003.

SEC. 2110. ALLOWANCE OF DEDUCTION FOR QUALIFIED NEW OR RETROFITTED WATER SUBMETERING DEVICES.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1 (relating to itemized deductions for individuals and cor-

porations), as amended by this Act, is amended by inserting after section 179D the following new section:

"SEC. 179E. DEDUCTION FOR QUALIFIED NEW OR RETROFITTED WATER SUBMETERING DEVICES.

"(a) ALLOWANCE OF DEDUCTION.—In the case of a taxpayer who is an eligible resupplier, there shall be allowed as a deduction an amount equal to the cost of each qualified water submetering device placed in service during the taxable year.

"(b) MAXIMUM DEDUCTION.—The deduction allowed by this section with respect to each qualified water submetering device shall not exceed $30.

"(c) ELIGIBLE RESUPPLIER.—For purposes of this section, the term 'eligible resupplier' means any taxpayer who purchases and installs qualified water submetering devices in every unit in any multi-unit property.

"(d) QUALIFIED WATER SUBMETERING DEVICE.—The term 'qualified water submetering device' means any tangible property to which section 168 applies if such property is a submetering device (including ancillary equipment)—

"(1) which is purchased and installed by the taxpayer to enable consumers to manage their purchase or use of water in response to water price and usage signals, and

"(2) which permits reading of water price and usage signals on at least a daily basis.

"(e) PROPERTY USED OUTSIDE THE UNITED STATES NOT QUALIFIED.—No deduction shall be allowed under subsection (a) with respect to property which is used predominantly outside the United States or with respect to the portion of the cost of any property taken into account under section 179.

"(f) BASIS REDUCTION.—

"(1) IN GENERAL.—For purposes of this title, the basis of any property shall be reduced by the amount of the deduction with respect to such property which is allowed by subsection (a).

"(2) ORDINARY INCOME RECAPTURE.—For purposes of section 1245, the amount of the deduction allowable under subsection (a) with respect to any property that is of a character subject to the allowance for depreciation shall be treated as a deduction allowed for depreciation under section 167.

"(g) TERMINATION.—This section shall not apply to any property placed in service after December 31, 2007.".

(b) CONFORMING AMENDMENTS.—

(1) Section 263(a)(1), as amended by this Act, is amended by striking "or" at the end of subparagraph (J), by striking the period at the end of subparagraph

(K) and inserting ", or", and by inserting after subparagraph (K) the following new subparagraph:

"(L) expenditures for which a deduction is allowed under section 179E.".

(2) Section 312(k)(3)(B), as amended by this Act, is amended by striking "or 179D" each place it appears in the heading and text and inserting ", 179D, or 179E".

(3) Section 1016(a), as amended by this Act, is amended by striking "and" at the end of paragraph (34), by striking the period at the end of paragraph (35) and inserting ", and", and by adding at the end the following new paragraph:

"(36) to the extent provided in section 179E(f)(1).".

(4) Section 1245(a), as amended by this Act, is amended by inserting "179E," after "179D," both places it appears in paragraphs (2)(C) and (3)(C).

(5) The table of contents for subpart B of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 179D the following new item:

"Sec. 179E. Deduction for qualified new or retrofitted water submetering devices.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to qualified water submetering devices

placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 2111. THREE-YEAR APPLICABLE RECOVERY PERIOD FOR DEPRECIATION OF QUALIFIED WATER SUBMETERING DEVICES.

(a) IN GENERAL.—Subparagraph (A) of section 168(e)(3) (relating to classification of property) is amended by striking "and" at the end of clause (iii), by striking the period at the end of clause (iv) and inserting ", and", and by adding at the end the following new clause:

"(v) any qualified water submetering device.".

(b) DEFINITION OF QUALIFIED WATER SUBMETERING DEVICE.—Section 168(i) (relating to definitions and special rules), as amended by this Act, is amended by inserting at the end the following new paragraph:

"(16) QUALIFIED WATER SUBMETERING DEVICE.—The term 'qualified water submetering device' means any qualified water submetering device (as defined in section 179E(d)) which is placed in service before January 1, 2008, by a taxpayer who is an eligible resupplier (as defined in section 179E(c)).".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the

date of the enactment of this Act, in taxable years ending after such date.

TITLE XXII—CLEAN COAL INCENTIVES

Subtitle A—Credit for Emission Reductions and Efficiency Improvements in Existing Coal-Based Electricity Generation Facilities

SEC. 2201. CREDIT FOR PRODUCTION FROM A QUALIFYING CLEAN COAL TECHNOLOGY UNIT.

(a) CREDIT FOR PRODUCTION FROM A QUALIFYING CLEAN COAL TECHNOLOGY UNIT.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45I. CREDIT FOR PRODUCTION FROM A QUALIFYING CLEAN COAL TECHNOLOGY UNIT.

"(a) GENERAL RULE.—For purposes of section 38, the qualifying clean coal technology production credit of any taxpayer for any taxable year is equal to the product of—

"(1) the applicable amount of clean coal technology production credit, multiplied by

"(2) the applicable percentage of the kilowatt hours of electricity produced by the taxpayer during such taxable year at a qualifying clean coal tech-

nology unit, but only if such production occurs during the 10-year period beginning on the date the unit was returned to service after becoming a qualifying clean coal technology unit.

"(b) APPLICABLE AMOUNT.—

"(1) IN GENERAL.—For purposes of this section, the applicable amount of clean coal technology production credit is equal to $0.0034.

"(2) INFLATION ADJUSTMENT.—For calendar years after 2003, the applicable amount of clean coal technology production credit shall be adjusted by multiplying such amount by the inflation adjustment factor for the calendar year in which the amount is applied. If any amount as increased under the preceding sentence is not a multiple of 0.01 cent, such amount shall be rounded to the nearest multiple of 0.01 cent.

"(c) APPLICABLE PERCENTAGE.—For purposes of this section, with respect to any qualifying clean coal technology unit, the applicable percentage is the percentage equal to the ratio which the portion of the national megawatt capacity limitation allocated to the taxpayer with respect to such unit under subsection (e) bears to the total megawatt capacity of such unit.

"(d) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) QUALIFYING CLEAN COAL TECHNOLOGY UNIT.—The term 'qualifying clean coal technology unit' means a clean coal technology unit of the taxpayer which—

"(A) on the date of the enactment of this section was a coal-based electricity generating steam generator-turbine unit which was not a clean coal technology unit,

"(B) has a nameplate capacity rating of not more than 300,000 kilowatts,

"(C) becomes a clean coal technology unit as the result of the retrofitting, repowering, or replacement of the unit with clean coal technology during the 10-year period beginning on the date of the enactment of this section,

"(D) is not receiving nor is scheduled to receive funding under the Clean Coal Technology Program, the Power Plant Improvement Initiative, or the Clean Coal Power Initiative administered by the Secretary of Energy, and

"(E) receives an allocation of a portion of the national megawatt capacity limitation under subsection (e).

"(2) CLEAN COAL TECHNOLOGY UNIT.—The term 'clean coal technology unit' means a unit which—

"(A) uses clean coal technology, including advanced pulverized coal or atmospheric fluidized bed combustion, pressurized fluidized bed combustion, integrated gasification combined cycle, or any other technology for the production of electricity,

"(B) uses coal to produce 75 percent or more of its thermal output as electricity,

"(C) has a design net heat rate of at least 500 less than that of such unit as described in paragraph (1)(A),

"(D) has a maximum design net heat rate of not more than 9,500, and

"(E) meets the pollution control requirements of paragraph (3).

"(3) POLLUTION CONTROL REQUIREMENTS.—

"(A) IN GENERAL.—A unit meets the requirements of this paragraph if—

"(i) its emissions of sulfur dioxide, nitrogen oxide, or particulates meet the lower of the emission levels for each such emission specified in—

"(I) subparagraph (B), or

"(II) the new source performance standards of the Clean Air Act (42 U.S.C. 7411) which are in effect for the category of source at the time of the retrofitting, repowering, or replacement of the unit, and

"(ii) its emissions do not exceed any relevant emission level specified by regulation pursuant to the hazardous air pollutant requirements of the Clean Air Act (42 U.S.C. 7412) in effect at the time of the retrofitting, repowering, or replacement.

"(B) SPECIFIC LEVELS.—The levels specified in this subparagraph are—

"(i) in the case of sulfur dioxide emissions, 50 percent of the sulfur dioxide emission levels specified in the new source performance standards of the Clean Air Act (42 U.S.C. 7411) in effect on the date of the enactment of this section for the category of source,

"(ii) in the case of nitrogen oxide emissions—

"(I) 0.1 pound per million Btu of heat input if the unit is not a cyclone-fired boiler, and

"(II) if the unit is a cyclone-fired boiler, 15 percent of the uncontrolled nitrogen oxide emissions from such boilers, and

"(iii) in the case of particulate emissions, 0.02 pound per million Btu of heat input.

"(4) DESIGN NET HEAT RATE.—The design net heat rate with respect to any unit, measured in Btu per kilowatt hour (HHV)—

"(A) shall be based on the design annual heat input to and the design annual net electrical output from such unit (determined without regard to such unit's co-generation of steam),

"(B) shall be adjusted for the heat content of the design coal to be used by the unit if it is less than 12,000 Btu per pound according to the following formula:

Design net heat rate = Unit net heat rate X [l-{((12,000-design coal heat content, Btu per pound)/1,000) X 0.013}], and

"(C) shall be corrected for the site reference conditions of—

"(i) elevation above sea level of 500 feet,

"(ii) air pressure of 14.4 pounds per square inch absolute (psia),

"(iii) temperature, dry bulb of 63°F,

"(iv) temperature, wet bulb of 54°F, and

"(v) relative humidity of 55 percent.

"(5) HHV.—The term 'HHV' means higher heating value.

"(6) APPLICATION OF CERTAIN RULES.—The rules of paragraphs (3), (4), and (5) of section 45(d) shall apply.

"(7) INFLATION ADJUSTMENT FACTOR.—

"(A) IN GENERAL.—The term 'inflation adjustment factor' means, with respect to a calendar year, a fraction the numerator of which is the GDP implicit price deflator for the preceding calendar year and the denominator of which is the GDP implicit price deflator for the calendar year 2002.

"(B) GDP IMPLICIT PRICE DEFLATOR.—The term 'GDP implicit price deflator' means the most recent revision of the implicit price deflator for the gross domestic product as com-

puted by the Department of Commerce before March 15 of the calendar year.

"(8) NONCOMPLIANCE WITH POLLUTION LAWS.—For purposes of this section, a unit which is not in compliance with the applicable State and Federal pollution prevention, control, and permit requirements for any period of time shall not be considered to be a qualifying clean coal technology unit during such period.

"(e) NATIONAL LIMITATION ON THE AGGREGATE CAPACITY OF QUALIFYING CLEAN COAL TECHNOLOGY UNITS.—

"(1) IN GENERAL.—For purposes of subsection (d)(1)(E), the national megawatt capacity limitation for qualifying clean coal technology units is 4,000 megawatts.

"(2) ALLOCATION OF LIMITATION.—The Secretary shall allocate the national megawatt capacity limitation for qualifying clean coal technology units in such manner as the Secretary may prescribe under the regulations under paragraph (3).

"(3) REGULATIONS.—Not later than 6 months after the date of the enactment of this section, the Secretary shall prescribe such regulations as may be necessary or appropriate—

"(A) to carry out the purposes of this subsection,

"(B) to limit the capacity of any qualifying clean coal technology unit to which this section applies so that the combined megawatt capacity allocated to all such units under this subsection when all such units are placed in service during the 10-year period described in subsection (d)(1)(C), does not exceed 4,000 megawatts,

"(C) to provide a certification process under which the Secretary, in consultation with the Secretary of Energy, shall approve and allocate the national megawatt capacity limitation—

"(i) to encourage that units with the highest thermal efficiencies, when adjusted for the heat content of the design coal and site reference conditions described in subsection (d)(4)(C), and environmental performance be placed in service as soon as possible,

"(ii) to allocate capacity to taxpayers that have a definite and credible plan for placing into commercial operation a qualifying clean coal technology unit, including—

"(I) a site,

"(II) contractual commitments for procurement and construction or, in the case of regulated utilities, the agreement of the State utility commission,

"(III) filings for all necessary preconstruction approvals,

"(IV) a demonstrated record of having successfully completed comparable projects on a timely basis, and

"(V) such other factors that the Secretary determines are appropriate,

"(D) to allocate the national megawatt capacity limitation to a portion of the capacity of a qualifying clean coal technology unit if the Secretary determines that such an allocation would maximize the amount of efficient production encouraged with the available tax credits,

"(E) to set progress requirements and conditional approvals so that capacity allocations for clean coal technology units that become unlikely to meet the necessary conditions for qualifying can be reallocated by the Secretary to other clean coal technology units, and

"(F) to provide taxpayers with opportunities to correct administrative errors and omissions with respect to allocations and record keeping within a reasonable period after discovery, taking into account the availability of regulations and other administrative guidance from the Secretary.".

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking "plus" at the end of paragraph (18), by striking the period at the end of paragraph (19) and inserting ", plus", and by adding at the end the following new paragraph:

"(20) the qualifying clean coal technology production credit determined under section 45I(a).".

(c) TRANSITIONAL RULE.—Section 39(d) (relating to transitional rules), as amended by this Act, is amended by adding at the end the following new paragraph:

"(16) NO CARRYBACK OF SECTION 45I CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the qualifying clean coal technology production credit determined under section 45I may be carried back to a taxable year ending on or before the date of the enactment of section 45I.".

(d) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45I. Credit for production from a qualifying clean coal technology unit.".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to production after the date of the enactment of this Act, in taxable years ending after such date.

Subtitle B—Incentives for Early Commercial Applications of Advanced Clean Coal Technologies

SEC. 2211. CREDIT FOR INVESTMENT IN QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY.

(a) ALLOWANCE OF QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT CREDIT.—Section 46 (relating to amount of credit) is amended by striking "and" at the end of paragraph (2), by striking the period at the end of paragraph (3) and inserting ", and", and by adding at the end the following new paragraph:

"(4) the qualifying advanced clean coal technology unit credit.".

(b) AMOUNT OF QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT CREDIT.—Subpart E of part IV of subchapter A of chapter 1 (relating to rules for computing investment credit) is amended by inserting after section 48 the following new section:

"SEC. 48A. QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT CREDIT.

"(a) IN GENERAL.—For purposes of section 46, the qualifying advanced clean coal technology unit credit for any taxable year is an amount equal to 10 percent of the applicable percentage of the qualified investment in a qualifying advanced clean coal technology unit for such taxable year.

"(b) QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT.—

"(1) IN GENERAL.—For purposes of subsection (a), the term 'qualifying advanced clean coal technology unit' means an advanced clean coal technology unit of the taxpayer—

"(A)(i)(I) in the case of a unit first placed in service after the date of the enactment of this section, the original use of which commences with the taxpayer, or

"(II) in the case of the retrofitting or repowering of a unit first placed in service before such date of enactment, the retrofitting or repowering of which is completed by the taxpayer after such date, or

"(ii) which is acquired through purchase (as defined by section 179(d)(2)),

"(B) which is depreciable under section 167,

"(C) which has a useful life of not less than 4 years,

"(D) which is located in the United States,

"(E) which is not receiving nor is scheduled to receive funding under the Clean Coal Technology Program, the Power Plant Improvement Initiative, or the Clean Coal Power Initiative administered by the Secretary of Energy,

"(F) which is not a qualifying clean coal technology unit, and

"(G) which receives an allocation of a portion of the national megawatt capacity limitation under subsection (f).

"(2) SPECIAL RULE FOR SALE-LEASEBACKS.—For purposes of subparagraph (A) of paragraph (1), in the case of a unit which—

"(A) is originally placed in service by a person, and

"(B) is sold and leased back by such person, or is leased to such person, within 3 months after the date such unit was originally placed in service, for a period of not less than 12 years,

such unit shall be treated as originally placed in service not earlier than the date on which such unit is used under the leaseback (or lease) referred to in sub-

paragraph (B). The preceding sentence shall not apply to any property if the lessee and lessor of such property make an election under this sentence. Such an election, once made, may be revoked only with the consent of the Secretary.

"(3) NONCOMPLIANCE WITH POLLUTION LAWS.—For purposes of this subsection, a unit which is not in compliance with the applicable State and Federal pollution prevention, control, and permit requirements for any period of time shall not be considered to be a qualifying advanced clean coal technology unit during such period.

"(c) APPLICABLE PERCENTAGE.—For purposes of this section, with respect to any qualifying advanced clean coal technology unit, the applicable percentage is the percentage equal to the ratio which the portion of the national megawatt capacity limitation allocated to the taxpayer with respect to such unit under subsection (f) bears to the total megawatt capacity of such unit.

"(d) ADVANCED CLEAN COAL TECHNOLOGY UNIT.—For purposes of this section—

"(1) IN GENERAL.—The term 'advanced clean coal technology unit' means a new, retrofit, or repowering unit of the taxpayer which—

"(A) is—

"(i) an eligible advanced pulverized coal or atmospheric fluidized bed combustion technology unit,

"(ii) an eligible pressurized fluidized bed combustion technology unit,

"(iii) an eligible integrated gasification combined cycle technology unit, or

"(iv) an eligible other technology unit, and

"(B) meets the carbon emission rate requirements of paragraph (6).

"(2) ELIGIBLE ADVANCED PULVERIZED COAL OR ATMOSPHERIC FLUIDIZED BED COMBUSTION TECHNOLOGY UNIT.—The term 'eligible advanced pulverized coal or atmospheric fluidized bed combustion technology unit' means a clean coal technology unit using advanced pulverized coal or atmospheric fluidized bed combustion technology which—

"(A) is placed in service after the date of the enactment of this section and before January 1, 2013, and

"(B) has a design net heat rate of not more than 8,350 (8,750 in the case of units placed in service before 2009).

"(3) ELIGIBLE PRESSURIZED FLUIDIZED BED COMBUSTION TECHNOLOGY UNIT.—The term 'eligible pressurized fluidized bed combustion technology unit' means a clean coal technology unit using pressurized fluidized bed combustion technology which—

"(A) is placed in service after the date of the enactment of this section and before January 1, 2017, and

"(B) has a design net heat rate of not more than 7,720 (8,750 in the case of units placed in service before 2009, and 8,350 in the case of units placed in service after 2008 and before 2013).

"(4) ELIGIBLE INTEGRATED GASIFICATION COMBINED CYCLE TECHNOLOGY UNIT.—The term 'eligible integrated gasification combined cycle technology unit' means a clean coal technology unit using integrated gasification combined cycle technology, with or without fuel or chemical co-production, which—

"(A) is placed in service after the date of the enactment of this section and before January 1, 2017,

"(B) has a design net heat rate of not more than 7,720 (8,750 in the case of units placed in service before 2009, and 8,350 in the case of

units placed in service after 2008 and before 2013), and

"(C) has a net thermal efficiency (HHV) using coal with fuel or chemical co-production of not less than 43.9 percent (39 percent in the case of units placed in service before 2009, and 40.9 percent in the case of units placed in service after 2008 and before 2013).

"(5) ELIGIBLE OTHER TECHNOLOGY UNIT.—The term 'eligible other technology unit' means a clean coal technology unit using any other technology for the production of electricity which is placed in service after the date of the enactment of this section and before January 1, 2017.

"(6) CARBON EMISSION RATE REQUIREMENTS.—

"(A) IN GENERAL.—Except as provided in subparagraph (B), a unit meets the requirements of this paragraph if—

"(i) in the case of a unit using design coal with a heat content of not more than 9,000 Btu per pound, the carbon emission rate is less than 0.60 pound of carbon per kilowatt hour, and

"(ii) in the case of a unit using design coal with a heat content of more than 9,000

Btu per pound, the carbon emission rate is less than 0.54 pound of carbon per kilowatt hour.

"(B) ELIGIBLE OTHER TECHNOLOGY UNIT.—In the case of an eligible other technology unit, subparagraph (A) shall be applied by substituting '0.51' and '0.459' for '0.60' and '0.54', respectively.

"(e) GENERAL DEFINITIONS.—Any term used in this section which is also used in section 45I shall have the meaning given such term in section 45I.

"(f) NATIONAL LIMITATION ON THE AGGREGATE CAPACITY OF ADVANCED CLEAN COAL TECHNOLOGY UNITS.—

"(1) IN GENERAL.—For purposes of subsection (b)(1)(G), the national megawatt capacity limitation is—

"(A) for qualifying advanced clean coal technology units using advanced pulverized coal or atmospheric fluidized bed combustion technology, not more than 1,000 megawatts (not more than 500 megawatts in the case of units placed in service before 2009),

"(B) for such units using pressurized fluidized bed combustion technology, not more than

500 megawatts (not more than 250 megawatts in the case of units placed in service before 2009),

"(C) for such units using integrated gasification combined cycle technology, with or without fuel or chemical co-production, not more than 2,000 megawatts (not more than 1,000 megawatts in the case of units placed in service before 2009 and not more than 1,500 megawatts in the case of units placed in service after 2008 and before 2013), and

"(D) for such units using other technology for the production of electricity, not more than 500 megawatts (not more than 250 megawatts in the case of units placed in service before 2009).

"(2) ALLOCATION OF LIMITATION.—The Secretary shall allocate the national megawatt capacity limitation for qualifying advanced clean coal technology units in such manner as the Secretary may prescribe under the regulations under paragraph (3).

"(3) REGULATIONS.—Not later than 6 months after the date of the enactment of this section, the Secretary shall prescribe such regulations as may be necessary or appropriate—

"(A) to carry out the purposes of this subsection and section 45J,

"(B) to limit the capacity of any qualifying advanced clean coal technology unit to which this section applies so that the combined megawatt capacity of all such units to which this section applies does not exceed 4,000 megawatts,

"(C) to provide a certification process described in section 45I(e)(3)(C),

"(D) to carry out the purposes described in subparagraphs (D), (E), and (F) of section 45I(e)(3), and

"(E) to reallocate capacity which is not allocated to any technology described in subparagraphs (A) through (D) of paragraph (1) because an insufficient number of qualifying units request an allocation for such technology, to another technology described in such subparagraphs in order to maximize the amount of energy efficient production encouraged with the available tax credits.

"(4) SELECTION CRITERIA.—For purposes of paragraph (3)(C), the selection criteria for allocating the national megawatt capacity limitation to qualifying advanced clean coal technology units—

"(A) shall be established by the Secretary of Energy as part of a competitive solicitation,

"(B) shall include primary criteria of minimum design net heat rate, maximum design thermal efficiency, environmental performance, and lowest cost to the Government, and

"(C) shall include supplemental criteria as determined appropriate by the Secretary of Energy.

"(g) QUALIFIED INVESTMENT.—For purposes of subsection (a), the term 'qualified investment' means, with respect to any taxable year, the basis of a qualifying advanced clean coal technology unit placed in service by the taxpayer during such taxable year (in the case of a unit described in subsection (b)(1)(A)(i)(II), only that portion of the basis of such unit which is properly attributable to the retrofitting or repowering of such unit).

"(h) QUALIFIED PROGRESS EXPENDITURES.—

"(1) INCREASE IN QUALIFIED INVESTMENT.—In the case of a taxpayer who has made an election under paragraph (5), the amount of the qualified investment of such taxpayer for the taxable year (determined under subsection (g) without regard to this subsection) shall be increased by an amount equal to the aggregate of each qualified progress expenditure for the taxable year with respect to progress expenditure property.

"(2) PROGRESS EXPENDITURE PROPERTY DEFINED.—For purposes of this subsection, the term 'progress expenditure property' means any property being constructed by or for the taxpayer and which it is reasonable to believe will qualify as a qualifying advanced clean coal technology unit which is being constructed by or for the taxpayer when it is placed in service.

"(3) QUALIFIED PROGRESS EXPENDITURES DEFINED.—For purposes of this subsection—

"(A) SELF-CONSTRUCTED PROPERTY.—In the case of any self-constructed property, the term 'qualified progress expenditures' means the amount which, for purposes of this subpart, is properly chargeable (during such taxable year) to capital account with respect to such property.

"(B) NONSELF-CONSTRUCTED PROPERTY.—In the case of nonself-constructed property, the term 'qualified progress expenditures' means the amount paid during the taxable year to another person for the construction of such property.

"(4) OTHER DEFINITIONS.—For purposes of this subsection—

"(A) SELF-CONSTRUCTED PROPERTY.—The term 'self-constructed property' means property

for which it is reasonable to believe that more than half of the construction expenditures will be made directly by the taxpayer.

"(B) NONSELF-CONSTRUCTED PROPERTY.—The term 'nonself-constructed property' means property which is not self-constructed property.

"(C) CONSTRUCTION, ETC.—The term 'construction' includes reconstruction and erection, and the term 'constructed' includes reconstructed and erected.

"(D) ONLY CONSTRUCTION OF QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT TO BE TAKEN INTO ACCOUNT.—Construction shall be taken into account only if, for purposes of this subpart, expenditures therefor are properly chargeable to capital account with respect to the property.

"(5) ELECTION.—An election under this subsection may be made at such time and in such manner as the Secretary may by regulations prescribe. Such an election shall apply to the taxable year for which made and to all subsequent taxable years. Such an election, once made, may not be revoked except with the consent of the Secretary.

"(i) COORDINATION WITH OTHER CREDITS.—This section shall not apply to any property with respect to which the rehabilitation credit under section 47 or the energy credit under section 48 is allowed unless the taxpayer elects to waive the application of such credit to such property.".

(c) RECAPTURE.—Section 50(a) (relating to other special rules) is amended by adding at the end the following new paragraph:

"(6) SPECIAL RULES RELATING TO QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT.—For purposes of applying this subsection in the case of any credit allowable by reason of section 48A, the following shall apply:

"(A) GENERAL RULE.—In lieu of the amount of the increase in tax under paragraph (1), the increase in tax shall be an amount equal to the investment tax credit allowed under section 38 for all prior taxable years with respect to a qualifying advanced clean coal technology unit (as defined by section 48A(b)(1)) multiplied by a fraction whose numerator is the number of years remaining to fully depreciate under this title the qualifying advanced clean coal technology unit disposed of, and whose denominator

is the total number of years over which such unit would otherwise have been subject to depreciation. For purposes of the preceding sentence, the year of disposition of the qualifying advanced clean coal technology unit shall be treated as a year of remaining depreciation.

"(B) PROPERTY CEASES TO QUALIFY FOR PROGRESS EXPENDITURES.—Rules similar to the rules of paragraph (2) shall apply in the case of qualified progress expenditures for a qualifying advanced clean coal technology unit under section 48A, except that the amount of the increase in tax under subparagraph (A) of this paragraph shall be substituted for the amount described in such paragraph (2).

"(C) APPLICATION OF PARAGRAPH.—This paragraph shall be applied separately with respect to the credit allowed under section 38 regarding a qualifying advanced clean coal technology unit.".

(d) TRANSITIONAL RULE.—Section 39(d) (relating to transitional rules), as amended by this Act, is amended by adding at the end the following new paragraph:

"(17) NO CARRYBACK OF SECTION 48A CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused

business credit for any taxable year which is attributable to the qualifying advanced clean coal technology unit credit determined under section 48A may be carried back to a taxable year ending on or before the date of the enactment of section 48A.".

(e) TECHNICAL AMENDMENTS.—

(1) Section 49(a)(1)(C) is amended by striking "and" at the end of clause (ii), by striking the period at the end of clause (iii) and inserting ", and", and by adding at the end the following new clause:

"(iv) the portion of the basis of any qualifying advanced clean coal technology unit attributable to any qualified investment (as defined by section 48A(g)).".

(2) Section 50(a)(4) is amended by striking "and (2)" and inserting "(2), and (6)".

(3) Section 50(c) is amended by adding at the end the following new paragraph:

"(6) NONAPPLICATION.—Paragraphs (1) and (2) shall not apply to any qualifying advanced clean coal technology unit credit under section 48A.".

(4) The table of sections for subpart E of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 48 the following new item:

"Sec. 48A. Qualifying advanced clean coal technology unit credit.".

(f) EFFECTIVE DATE.—The amendments made by this section shall apply to periods after the date of the enactment of this Act, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

SEC. 2212. CREDIT FOR PRODUCTION FROM A QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45J. CREDIT FOR PRODUCTION FROM A QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY UNIT.

"(a) GENERAL RULE.—For purposes of section 38, the qualifying advanced clean coal technology production credit of any taxpayer for any taxable year is equal to—

"(1) the applicable amount of advanced clean coal technology production credit, multiplied by

"(2) the applicable percentage (as determined under section 48A(c)) of the sum of—

"(A) the kilowatt hours of electricity, plus

"(B) each 3,413 Btu of fuels or chemicals, produced by the taxpayer during such taxable year at a qualifying advanced clean coal technology unit dur-

ing the 10-year period beginning on the date the unit was originally placed in service (or returned to service after becoming a qualifying advanced clean coal technology unit).

"(b) APPLICABLE AMOUNT.—For purposes of this section, the applicable amount of advanced clean coal technology production credit with respect to production from a qualifying advanced clean coal technology unit shall be determined as follows:

"(1) Where the qualifying advanced clean coal technology unit is producing electricity only:

"(A) In the case of a unit originally placed in service before 2009, if—

"The design net heat rate is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 8,400	$.0060	$.0038
More than 8,400 but not more than 8,550	$.0025	$.0010
More than 8,550 but less than 8,750	$.0010	$.0010.

"(B) In the case of a unit originally placed in service after 2008 and before 2013, if—

"The design net heat rate is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 7,770	$.0105	$.0090
More than 7,770 but not more than 8,125	$.0085	$.0068
More than 8,125 but less than 8,350	$.0075	$.0055.

"(C) In the case of a unit originally placed in service after 2012 and before 2017, if—

"The design net heat rate is:	*The applicable amount is:*	
	For 1st 5 years of such service	*For 2d 5 years of such service*
Not more than 7,380	*$.0140*	*$.0115*
More than 7,380 but not more than 7,720	*$.0120*	*$.0090.*

"(2) Where the qualifying advanced clean coal technology unit is producing fuel or chemicals:

"(A) In the case of a unit originally placed in service before 2009, if—

"The unit design net thermal efficiency (HHV) is:	*The applicable amount is:*	
	For 1st 5 years of such service	*For 2d 5 years of such service*
Not less than 40.6 percent	*$.0060*	*$.0038*
Less than 40.6 but not less than 40 percent	*$.0025*	*$.0010*
Less than 40 but not less than 39 percent	*$.0010*	*$.0010.*

"(B) In the case of a unit originally placed in service after 2008 and before 2013, if—

"The unit design net thermal efficiency (HHV) is:	*The applicable amount is:*	
	For 1st 5 years of such service	*For 2d 5 years of such service*
Not less than 43.6 percent	*$.0105*	*$.0090*
Less than 43.6 but not less than 42 percent	*$.0085*	*$.0068*
Less than 42 but not less than 40.9 percent	*$.0075*	*$.0055.*

"(C) In the case of a unit originally placed in service after 2012 and before 2017, if—

"The unit design net thermal efficiency (HHV) is:	*The applicable amount is:*	
	For 1st 5 years of such service	*For 2d 5 years of such service*
Not less than 44.2 percent	*$.0140*	*$.0115*
Less than 44.2 but not less than 43.9 percent	*$.0120*	*$.0090.*

"(c) INFLATION ADJUSTMENT.—For calendar years after 2003, each amount in paragraphs (1) and (2) of subsection (b) shall be adjusted by multiplying such amount by the inflation adjustment factor for the calendar year in which the amount is applied. If any amount as increased under the preceding sentence is not a multiple of 0.01 cent, such amount shall be rounded to the nearest multiple of 0.01 cent.

"(d) DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

"(1) IN GENERAL.—Any term used in this section which is also used in section 45I or 48A shall have the meaning given such term in such section.

"(2) APPLICABLE RULES.—The rules of paragraphs (3), (4), and (5) of section 45(d) shall apply.".

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking "plus" at the end of paragraph (19), by striking the period at the end of paragraph (20) and inserting ", plus", and by adding at the end the following new paragraph:

"(21) the qualifying advanced clean coal technology production credit determined under section 45J(a).".

(c) TRANSITIONAL RULE.—Section 39(d) (relating to transitional rules), as amended by this Act, is amended by adding at the end the following new paragraph:

"(18) NO CARRYBACK OF SECTION 45J CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the qualifying advanced clean coal technology production credit determined under section 45J may be carried back to a taxable year ending on or before the date of the enactment of section 45J.".

(d) DENIAL OF DOUBLE BENEFIT.—Section 29(d) (relating to other definitions and special rules) is amended by adding at the end the following new paragraph:

"(9) DENIAL OF DOUBLE BENEFIT.—This section shall not apply with respect to any qualified fuel the production of which may be taken into account for purposes of determining the credit under section 45J.".

(e) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45J. Credit for production from a qualifying advanced clean coal technology unit.".

(f) EFFECTIVE DATE.—The amendments made by this section shall apply to production after the date of the enactment of this Act, in taxable years ending after such date.

Subtitle C—Treatment of Persons Not Able To Use Entire Credit

SEC. 2221. TREATMENT OF PERSONS NOT ABLE TO USE ENTIRE CREDIT.

(a) IN GENERAL.—Section 45I, as added by this Act, is amended by adding at the end the following new subsection:

"(f) TREATMENT OF PERSON NOT ABLE TO USE ENTIRE CREDIT.—

"(1) ALLOWANCE OF CREDITS.—

"(A) IN GENERAL.—Any credit allowable under this section, section 45J, or section 48A with respect to a facility owned by a person described in subparagraph (B) may be transferred or used as provided in this subsection, and the determination as to whether the credit is allowable shall be made without regard to the tax-exempt status of the person.

"(B) PERSONS DESCRIBED.—A person is described in this subparagraph if the person is—

"(i) an organization described in section 501(c)(12)(C) and exempt from tax under section 501(a),

"(ii) an organization described in section 1381(a)(2)(C),

"(iii) a public utility (as defined in section 136(c)(2)(B)),

"(iv) any State or political subdivision thereof, the District of Columbia, or any agency or instrumentality of any of the foregoing,

"(v) any Indian tribal government (within the meaning of section 7871) or any agency or instrumentality thereof, or

"(vi) the Tennessee Valley Authority.

"(2) TRANSFER OF CREDIT.—

"(A) IN GENERAL.—A person described in clause (i), (ii), (iii), (iv), or (v) of paragraph (1)(B) may transfer any credit to which paragraph (1)(A) applies through an assignment to any other person not described in paragraph (1)(B). Such transfer may be revoked only with the consent of the Secretary.

"(B) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to insure

that any credit described in subparagraph (A) is claimed once and not reassigned by such other person.

"(C) TRANSFER PROCEEDS TREATED AS ARISING FROM ESSENTIAL GOVERNMENT FUNCTION.—Any proceeds derived by a person described in clause (iii), (iv), or (v) of paragraph (1)(B) from the transfer of any credit under subparagraph (A) shall be treated as arising from the exercise of an essential government function.

"(3) USE OF CREDIT AS AN OFFSET.—Notwithstanding any other provision of law, in the case of a person described in clause (i), (ii), or (v) of paragraph (1)(B), any credit to which paragraph (1)(A) applies may be applied by such person, to the extent provided by the Secretary of Agriculture, as a prepayment of any loan, debt, or other obligation the entity has incurred under subchapter I of chapter 31 of title 7 of the Rural Electrification Act of 1936 (7 U.S.C. 901 et seq.), as in effect on the date of the enactment of this section.

"(4) USE BY TVA.—

"(A) IN GENERAL.—Notwithstanding any other provision of law, in the case of a person described in paragraph (1)(B)(vi), any credit to

which paragraph (1)(A) applies may be applied as a credit against the payments required to be made in any fiscal year under section 15d(e) of the Tennessee Valley Authority Act of 1933 (16 U.S.C. 831n–4(e)) as an annual return on the appropriations investment and an annual repayment sum.

"(B) TREATMENT OF CREDITS.—The aggregate amount of credits described in paragraph (1)(A) with respect to such person shall be treated in the same manner and to the same extent as if such credits were a payment in cash and shall be applied first against the annual return on the appropriations investment.

"(C) CREDIT CARRYOVER.—With respect to any fiscal year, if the aggregate amount of credits described paragraph (1)(A) with respect to such person exceeds the aggregate amount of payment obligations described in subparagraph (A), the excess amount shall remain available for application as credits against the amounts of such payment obligations in succeeding fiscal years in the same manner as described in this paragraph.

"(5) CREDIT NOT INCOME.—Any transfer under paragraph (2) or use under paragraph (3) of any

credit to which paragraph (1)(A) applies shall not be treated as income for purposes of section 501(c)(12).

"(6) TREATMENT OF UNRELATED PERSONS.—For purposes of this subsection, sales among and between persons described in clauses (i), (ii), (iii), (iv), and (v) of paragraph (1)(A) shall be treated as sales between unrelated parties.".

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to production after the date of the enactment of this Act, in taxable years ending after such date.

TITLE XXIII—OIL AND GAS PROVISIONS

SEC. 2301. OIL AND GAS FROM MARGINAL WELLS.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45K. CREDIT FOR PRODUCING OIL AND GAS FROM MARGINAL WELLS.

"(a) GENERAL RULE.—For purposes of section 38, the marginal well production credit for any taxable year is an amount equal to the product of—

"(1) the credit amount, and

"(2) the qualified credit oil production and the qualified natural gas production which is attributable to the taxpayer.

"(b) CREDIT AMOUNT.—For purposes of this section—

"(1) IN GENERAL.—The credit amount is—

"(A) $3 per barrel of qualified crude oil production, and

"(B) 50 cents per 1,000 cubic feet of qualified natural gas production.

"(2) REDUCTION AS OIL AND GAS PRICES INCREASE.—

"(A) IN GENERAL.—The $3 and 50 cents amounts under paragraph (1) shall each be reduced (but not below zero) by an amount which bears the same ratio to such amount (determined without regard to this paragraph) as—

"(i) the excess (if any) of the applicable reference price over $15 ($1.67 for qualified natural gas production), bears to

"(ii) $3 ($0.33 for qualified natural gas production).

The applicable reference price for a taxable year is the reference price of the calendar year preceding the calendar year in which the taxable year begins.

"(B) INFLATION ADJUSTMENT.—In the case of any taxable year beginning in a calendar year after 2002, each of the dollar amounts contained in subparagraph (A) shall be increased to an amount equal to such dollar amount multiplied by the inflation adjustment factor for such calendar year (determined under section 43(b)(3)(B) by substituting '2001' for '1990').

"(C) REFERENCE PRICE.—For purposes of this paragraph, the term 'reference price' means, with respect to any calendar year—

"(i) in the case of qualified crude oil production, the reference price determined under section 29(d)(2)(C), and

"(ii) in the case of qualified natural gas production, the Secretary's estimate of the annual average wellhead price per 1,000 cubic feet for all domestic natural gas.

"(c) QUALIFIED CRUDE OIL AND NATURAL GAS PRODUCTION.—For purposes of this section—

"(1) IN GENERAL.—The terms 'qualified crude oil production' and 'qualified natural gas production' mean domestic crude oil or natural gas which is produced from a qualified marginal well.

"(2) LIMITATION ON AMOUNT OF PRODUCTION WHICH MAY QUALIFY.—

"(A) IN GENERAL.—Crude oil or natural gas produced during any taxable year from any well shall not be treated as qualified crude oil production or qualified natural gas production to the extent production from the well during the taxable year exceeds 1,095 barrels or barrel equivalents.

"(B) PROPORTIONATE REDUCTIONS.—

"(i) SHORT TAXABLE YEARS.—In the case of a short taxable year, the limitations under this paragraph shall be proportionately reduced to reflect the ratio which the number of days in such taxable year bears to 365.

"(ii) WELLS NOT IN PRODUCTION ENTIRE YEAR.—In the case of a well which is not capable of production during each day of a taxable year, the limitations under this paragraph applicable to the well shall be proportionately reduced to reflect the ratio which the number of days of production bears to the total number of days in the taxable year.

"(3) DEFINITIONS.—

"(A) QUALIFIED MARGINAL WELL.—The term 'qualified marginal well' means a domestic well—

"(i) the production from which during the taxable year is treated as marginal production under section 613A(c)(6), or

"(ii) which, during the taxable year—

"(I) has average daily production of not more than 25 barrel equivalents, and

"(II) produces water at a rate not less than 95 percent of total well effluent.

"(B) CRUDE OIL, ETC.—The terms 'crude oil', 'natural gas', 'domestic', and 'barrel' have the meanings given such terms by section 613A(e).

"(C) BARREL EQUIVALENT.—The term 'barrel equivalent' means, with respect to natural gas, a conversation ratio of 6,000 cubic feet of natural gas to 1 barrel of crude oil.

"(d) OTHER RULES.—

"(1) PRODUCTION ATTRIBUTABLE TO THE TAXPAYER.—In the case of a qualified marginal well in

which there is more than one owner of operating interests in the well and the crude oil or natural gas production exceeds the limitation under subsection (c)(2), qualifying crude oil production or qualifying natural gas production attributable to the taxpayer shall be determined on the basis of the ratio which taxpayer's revenue interest in the production bears to the aggregate of the revenue interests of all operating interest owners in the production.

"(2) OPERATING INTEREST REQUIRED.—Any credit under this section may be claimed only on production which is attributable to the holder of an operating interest.

"(3) PRODUCTION FROM NONCONVENTIONAL SOURCES EXCLUDED.—In the case of production from a qualified marginal well which is eligible for the credit allowed under section 29 for the taxable year, no credit shall be allowable under this section unless the taxpayer elects not to claim the credit under section 29 with respect to the well.

"(4) NONCOMPLIANCE WITH POLLUTION LAWS.—For purposes of subsection (c)(3)(A), a marginal well which is not in compliance with the applicable State and Federal pollution prevention, control, and permit requirements for any period of time shall not be con-

sidered to be a qualified marginal well during such period.".

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking "plus" at the end of paragraph (20), by striking the period at the end of paragraph (21) and inserting ", plus", and by adding at the end the following new paragraph:

"(22) the marginal oil and gas well production credit determined under section 45K(a).".

(c) NO CARRYBACK OF MARGINAL OIL AND GAS WELL PRODUCTION CREDIT BEFORE EFFECTIVE DATE.—Subsection (d) of section 39, as amended by this Act, is amended by adding at the end the following new paragraph:

"(19) NO CARRYBACK OF MARGINAL OIL AND GAS WELL PRODUCTION CREDIT BEFORE EFFECTIVE DATE.—No portion of the unused business credit for any taxable year which is attributable to the marginal oil and gas well production credit determined under section 45K may be carried back to a taxable year ending on or before the date of the enactment of section 45K.".

(d) COORDINATION WITH SECTION 29.—Section 29(a) is amended by striking "There" and inserting "At the election of the taxpayer, there".

(e) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45K. Credit for producing oil and gas from marginal wells.".

(f) EFFECTIVE DATE.—The amendments made by this section shall apply to production in taxable years beginning after the date of the enactment of this Act.

SEC. 2302. NATURAL GAS GATHERING LINES TREATED AS 7-YEAR PROPERTY.

(a) IN GENERAL.—Subparagraph (C) of section 168(e)(3) (relating to classification of certain property) is amended by striking "and" at the end of clause (i), by redesignating clause (ii) as clause (iii), and by inserting after clause (i) the following new clause:

"(ii) any natural gas gathering line, and".

(b) NATURAL GAS GATHERING LINE.—Subsection (i) of section 168, as amended by this Act, is amended by adding at the end the following new paragraph:

"(16) NATURAL GAS GATHERING LINE.—The term 'natural gas gathering line' means—

"(A) the pipe, equipment, and appurtenances determined to be a gathering line by the Federal Energy Regulatory Commission, or

"(B) the pipe, equipment, and appurtenances used to deliver natural gas from the wellhead or a commonpoint to the point at which such gas first reaches—

"(i) a gas processing plant,

"(ii) an interconnection with a transmission pipeline certificated by the Federal Energy Regulatory Commission as an interstate transmission pipeline,

"(iii) an interconnection with an intrastate transmission pipeline, or

"(iv) a direct interconnection with a local distribution company, a gas storage facility, or an industrial consumer.".

(c) ALTERNATIVE SYSTEM.—The table contained in section 168(g)(3)(B) is amended by inserting after the item relating to subparagraph (C)(i) the following new item:

"(C)(ii) ..... 10".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 2303. EXPENSING OF CAPITAL COSTS INCURRED IN COMPLYING WITH ENVIRONMENTAL PROTECTION AGENCY SULFUR REGULATIONS.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1 (relating to itemized deductions for individuals and corporations), as amended by this Act, is amended by inserting after section 179C the following new section:

"SEC. 179D. DEDUCTION FOR CAPITAL COSTS INCURRED IN COMPLYING WITH ENVIRONMENTAL PROTECTION AGENCY SULFUR REGULATIONS.

"(a) TREATMENT AS EXPENSE.—

"(1) IN GENERAL.—A small business refiner may elect to treat any qualified capital costs as an expense which is not chargeable to capital account. Any qualified cost which is so treated shall be allowed as a deduction for the taxable year in which the cost is paid or incurred.

"(2) LIMITATION.—

"(A) IN GENERAL.—The aggregate costs which may be taken into account under this subsection for any taxable year may not exceed the applicable percentage of the qualified capital costs paid or incurred for the taxable year.

"(B) APPLICABLE PERCENTAGE.—For purposes of subparagraph (A)—

"(i) IN GENERAL.—Except as provided in clause (ii), the applicable percentage is 75 percent.

"(ii) REDUCED PERCENTAGE.—In the case of a small business refiner with average daily refinery runs for the period described in subsection (b)(2) in excess of 155,000 barrels, the percentage described in clause (i) shall be reduced (not below zero) by the product of such percentage (before the application of this clause) and the ratio of such excess to 50,000 barrels.

"(b) DEFINITIONS.—For purposes of this section—

"(1) QUALIFIED CAPITAL COSTS.—The term 'qualified capital costs' means any costs which—

"(A) are otherwise chargeable to capital account, and

"(B) are paid or incurred for the purpose of complying with the Highway Diesel Fuel Sulfur Control Requirement of the Environmental Protection Agency, as in effect on the date of the enactment of this section, with respect to a facility placed in service by the taxpayer before such date.

"(2) SMALL BUSINESS REFINER.—The term 'small business refiner' means, with respect to any taxable year, a refiner of crude oil, which, within the refinery operations of the business, employs not more than 1,500 employees on any day during such taxable year and whose average daily refinery run for the 1-year period ending on the date of the enactment of this section did not exceed 205,000 barrels.

"(c) COORDINATION WITH OTHER PROVISIONS.—Section 280B shall not apply to amounts which are treated as expenses under this section.

"(d) BASIS REDUCTION.—For purposes of this title, the basis of any property shall be reduced by the portion of the cost of such property taken into account under subsection (a).

"(e) CONTROLLED GROUPS.—For purposes of this section, all persons treated as a single employer under subsection (b), (c), (m), or (o) of section 414 shall be treated as a single employer.".

(b) CONFORMING AMENDMENTS.—

(1) Section 263(a)(1), as amended by this Act, is amended by striking "or" at the end of subparagraph (I), by striking the period at the end of subparagraph (J) and inserting ", or", and by inserting after subparagraph (J) the following new subparagraph:

"(K) expenditures for which a deduction is allowed under section 179D.".

(2) Section 263A(c)(3) is amended by inserting "179C," after "section".

(3) Section 312(k)(3)(B), as amended by this Act, is amended by striking "or 179C" each place it appears in the heading and text and inserting ", 179C, or 179D".

(4) Section 1016(a), as amended by this Act, is amended by striking "and" at the end of paragraph (33), by striking the period at the end of paragraph (34) and inserting ", and", and by adding at the end the following new paragraph:

"(35) to the extent provided in section 179D(d).".

(5) Section 1245(a), as amended by this Act, is amended by inserting "179D," after "179C," both places it appears in paragraphs (2)(C) and (3)(C).

(6) The table of sections for part VI of subchapter B of chapter 1, as amended by this Act, is amended by inserting after section 179C the following new item:

"Sec. 179D. Deduction for capital costs incurred in complying with Environmental Protection Agency sulfur regulations.".

(c) EFFECTIVE DATE.—The amendment made by this section shall apply to expenses paid or incurred after the

date of the enactment of this Act, in taxable years ending after such date.

SEC. 2304. ENVIRONMENTAL TAX CREDIT.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business-related credits), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 45L. ENVIRONMENTAL TAX CREDIT.

"(a) IN GENERAL.—For purposes of section 38, the amount of the environmental tax credit determined under this section with respect to any small business refiner for any taxable year is an amount equal to 5 cents for every gallon of 15 parts per million or less sulfur diesel produced at a facility by such small business refiner during such taxable year.

"(b) MAXIMUM CREDIT.—

"(1) IN GENERAL.—For any small business refiner, the aggregate amount determined under subsection (a) for any taxable year with respect to any facility shall not exceed the applicable percentage of the qualified capital costs paid or incurred by such small business refiner with respect to such facility during the applicable period, reduced by the credit allowed under subsection (a) for any preceding year.

"(2) APPLICABLE PERCENTAGE.—For purposes of paragraph (1)—

"(A) IN GENERAL.—Except as provided in subparagraph (B), the applicable percentage is 25 percent.

"(B) REDUCED PERCENTAGE.—The percentage described in subparagraph (A) shall be reduced in the same manner as under section 179D(a)(2)(B)(ii).

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

"(1) IN GENERAL.—The terms 'small business refiner' and 'qualified capital costs' have the same meaning as given in section 179D.

"(2) APPLICABLE PERIOD.—The term 'applicable period' means, with respect to any facility, the period beginning on the day after the date which is 1 year after the date of the enactment of this section and ending with the date which is 1 year after the date on which the taxpayer must comply with the applicable EPA regulations with respect to such facility.

"(3) APPLICABLE EPA REGULATIONS.—The term 'applicable EPA regulations' means the Highway Diesel Fuel Sulfur Control Requirements of the Environmental Protection Agency, as in effect on the date of the enactment of this section.

"(d) CERTIFICATION.—

"(1) REQUIRED.—Not later than the date which is 30 months after the first day of the first taxable year in which the environmental tax credit is allowed with respect to qualified capital costs paid or incurred with respect to a facility, the small business refiner shall obtain a certification from the Secretary, in consultation with the Administrator of the Environmental Protection Agency, that the taxpayer's qualified capital costs with respect to such facility will result in compliance with the applicable EPA regulations.

"(2) CONTENTS OF APPLICATION.—An application for certification shall include relevant information regarding unit capacities and operating characteristics sufficient for the Secretary, in consultation with the Administrator of the Environmental Protection Agency, to determine that such qualified capital costs are necessary for compliance with the applicable EPA regulations.

"(3) REVIEW PERIOD.—Any application shall be reviewed and notice of certification, if applicable, shall be made within 60 days of receipt of such application. In the event the Secretary does not notify the taxpayer of the results of such certification within

such period, the taxpayer may presume the certification to be issued until so notified.

"(4) STATUTE OF LIMITATIONS.—With respect to the credit allowed under this section—

"(A) the statutory period for the assessment of any deficiency attributable to such credit shall not expire before the end of the 3-year period ending on the date that the review period described in paragraph (3) ends, and

"(B) such deficiency may be assessed before the expiration of such 3-year period notwithstanding the provisions of any other law or rule of law which would otherwise prevent such assessment.

"(e) CONTROLLED GROUPS.—For purposes of this section, all persons treated as a single employer under subsection (b), (c), (m), or (o) of section 414 shall be treated as a single employer.

"(f) COOPERATIVE ORGANIZATIONS.—

"(1) APPORTIONMENT OF CREDIT.—In the case of a cooperative organization described in section 1381(a), any portion of the credit determined under subsection (a) of this section, for the taxable year may, at the election of the organization, be apportioned among patrons eligible to share in patronage

dividends on the basis of the quantity or value of business done with or for such patrons for the taxable year. Such an election shall be irrevocable for such taxable year.

"(2) TREATMENT OF ORGANIZATIONS AND PATRONS.—

"(A) ORGANIZATIONS.—The amount of the credit not apportioned to patrons pursuant to paragraph (1) shall be included in the amount determined under subsection (a) for the taxable year of the organization.

"(B) PATRONS.—The amount of the credit apportioned to patrons pursuant to paragraph (1) shall be included in the amount determined under subsection (a) for the first taxable year of each patron ending on or after the last day of the payment period (as defined in section 1382(d)) for the taxable year of the organization or, if earlier, for the taxable year of each patron ending on or after the date on which the patron receives notice from the cooperative of the apportionment.".

(b) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Subsection (b) of section 38 (relating to general business credit), as amended by this Act, is amended by

striking "plus" at the end of paragraph (21), by striking the period at the end of paragraph (22) and inserting ", plus", and by adding at the end the following new paragraph:

"(23) in the case of a small business refiner, the environmental tax credit determined under section 45L(a).".

(c) DENIAL OF DOUBLE BENEFIT.—Section 280C (relating to certain expenses for which credits are allowable), as amended by this Act, is amended by adding after subsection (d) the following new subsection:

"(e) ENVIRONMENTAL TAX CREDIT.—No deduction shall be allowed for that portion of the expenses otherwise allowable as a deduction for the taxable year which is equal to the amount of the credit determined for the taxable year under section 45L(a).".

(d) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45L. Environmental tax credit.".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to expenses paid or incurred after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 2305. DETERMINATION OF SMALL REFINER EXCEPTION TO OIL DEPLETION DEDUCTION.

(a) IN GENERAL.—Paragraph (4) of section 613A(d) (relating to certain refiners excluded) is amended to read as follows:

"(4) CERTAIN REFINERS EXCLUDED.—If the taxpayer or 1 or more related persons engages in the refining of crude oil, subsection (c) shall not apply to the taxpayer for a taxable year if the average daily refinery runs of the taxpayer and such persons for the taxable year exceed 60,000 barrels. For purposes of this paragraph, the average daily refinery runs for any taxable year shall be determined by dividing the aggregate refinery runs for the taxable year by the number of days in the taxable year.".

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to taxable years beginning after December 31, 2002.

SEC. 2306. MARGINAL PRODUCTION INCOME LIMIT EXTENSION.

Section 613A(c)(6)(H) (relating to temporary suspension of taxable income limit with respect to marginal production), as amended by section 607(a) of the Job Creation and Worker Assistance Act of 2002, is amended by striking "2004" and inserting "2007".

SEC. 2307. AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1, as amended by this Act, is amended by adding at the end the following new section:

"SEC. 199. AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES FOR DOMESTIC OIL AND GAS WELLS.

"A taxpayer shall be entitled to an amortization deduction with respect to any geological and geophysical expenses incurred in connection with the exploration for, or development of, oil or gas within the United States (as defined in section 638) based on a period of 24 months beginning with the month in which such expenses were incurred.".

(b) CLERICAL AMENDMENT.—The table of sections for part VI of subchapter B of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 199. Amortization of geological and geophysical expenditures for domestic oil and gas wells.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to costs paid or incurred in taxable years beginning after December 31, 2002.

SEC. 2308. AMORTIZATION OF DELAY RENTAL PAYMENTS.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1, as amended by this Act, is amended by adding at the end the following new section:

"SEC. 199A. AMORTIZATION OF DELAY RENTAL PAYMENTS FOR DOMESTIC OIL AND GAS WELLS.

"(a) IN GENERAL.—A taxpayer shall be entitled to an amortization deduction with respect to any delay rental payments incurred in connection with the development of oil or gas within the United States (as defined in section 638) based on a period of 24 months beginning with the month in which such payments were incurred.".

"(b) DELAY RENTAL PAYMENTS.—For purposes of this section, the term 'delay rental payment' means an amount paid for the privilege of deferring development of an oil or gas well under an oil or gas lease.".

(b) CLERICAL AMENDMENT.—The table of sections for part VI of subchapter B of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 199A. Amortization of delay rental payments for domestic oil and gas wells.".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred in taxable years beginning after December 31, 2002.

SEC. 2309. STUDY OF COAL BED METHANE.

(a) IN GENERAL.—The Secretary of the Treasury shall study the effect of section 29 of the Internal Revenue Code of 1986 on the production of coal bed methane. Such study shall be made in conjunction with the study to be undertaken by the Secretary of the Interior on the effects of coal bed methane production on surface and water resources, as provided in section 607 of the Energy Policy Act of 2002.

(b) CONTENTS OF STUDY.—The study under subsection (a) shall estimate the total amount of credits under section 29 of the Internal Revenue Code of 1986 claimed annually and in the aggregate which are related to the production of coal bed methane since the date of the enactment of such section 29. Such study shall report the annual value of such credits allowable for coal bed methane compared to the average annual wellhead price of natural gas (per thousand cubic feet of natural gas). Such study shall also estimate the incremental increase in production of coal bed methane that has resulted from the enactment of such section 29, and the cost to the Federal Government, in terms of the net tax benefits claimed, per thousand cubic feet of incremental coal bed methane produced annually and in the aggregate since such enactment.

SEC. 2310. EXTENSION AND MODIFICATION OF CREDIT FOR PRODUCING FUEL FROM A NONCONVENTIONAL SOURCE.

(a) IN GENERAL.—Section 29 is amended by adding at the end the following new subsection:

"(h) EXTENSION FOR OTHER FACILITIES.—

"(1) OIL AND GAS.—In the case of a well or facility for producing qualified fuels described in subparagraph (A) or (B) of subsection (c)(1) which was drilled or placed in service after the date of the enactment of this subsection and before January 1, 2005, notwithstanding subsection (f), this section shall apply with respect to such fuels produced at such well or facility not later than the close of the 3-year period beginning on the date that such well is drilled or such facility is placed in service.

"(2) FACILITIES PRODUCING REFINED COAL.—

"(A) IN GENERAL.—In the case of a facility described in subparagraph (C) for producing refined coal which was placed in service after the date of the enactment of this subsection and before January 1, 2007, this section shall apply with respect to fuel produced at such facility not later than the close of the 5-year period beginning on the date such facility is placed in service.

"(B) REFINED COAL.—For purposes of this paragraph, the term 'refined coal' means a fuel which is a liquid, gaseous, or solid synthetic fuel produced from coal (including lignite) or high carbon fly ash, including such fuel used as a feedstock.

"(C) COVERED FACILITIES.—

"(i) IN GENERAL.—A facility is described in this subparagraph if such facility produces refined coal using a technology that results in—

"(I) a qualified emission reduction, and

"(II) a qualified enhanced value.

"(ii) QUALIFIED EMISSION REDUCTION.—For purposes of this subparagraph, the term 'qualified emission reduction' means a reduction of at least 20 percent of the emissions of nitrogen oxide and either sulfur dioxide or mercury released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable

coal predominantly available in the marketplace as of January 1, 2002.

"(iii) QUALIFIED ENHANCED VALUE.—For purposes of this subparagraph, the term 'qualified enhanced value' means an increase of at least 50 percent in the market value of the refined coal (excluding any increase caused by materials combined or added during the production process), as compared to the value of the feedstock coal.

"(iii) QUALIFYING ADVANCED CLEAN COAL TECHNOLOGY FACILITIES EXCLUDED.—A facility described in this subparagraph shall not include a qualifying advanced clean coal technology facility (as defined in section 48A(b)).

"(3) WELLS PRODUCING VISCOUS OIL.—

"(A) IN GENERAL.—In the case of a well for producing viscous oil which was placed in service after the date of the enactment of this subsection and before January 1, 2005, this section shall apply with respect to fuel produced at such well not later than the close of the 3-year period beginning on the date such well is placed in service.

"(B) VISCOUS OIL.—The term "viscous oil' means heavy oil, as defined in section 613A(c)(6), except that—

"(i) '22 degrees' shall be substituted for '20 degrees' in applying subparagraph (F) thereof, and

"(ii) in all cases, the oil gravity shall be measured from the initial well-head samples, drill cuttings, or down hole samples.

"(C) WAIVER OF UNRELATED PERSON REQUIREMENT.—In the case of viscous oil, the requirement under subsection (a)(1)(B)(i) of a sale to an unrelated person shall not apply to any sale to the extent that the viscous oil is not consumed in the immediate vicinity of the wellhead.

"(4) COALMINE METHANE GAS.—

"(A) IN GENERAL.—This section shall apply to coalmine methane gas—

"(i) captured or extracted by the taxpayer after the date of the enactment of this subsection and before January 1, 2005, and

"(ii) utilized as a fuel source or sold by or on behalf of the taxpayer to an unrelated person after the date of the enactment of this subsection and before January 1, 2005.

"(B) COALMINE METHANE GAS.—For purposes of this paragraph, the term 'coalmine methane gas' means any methane gas which is—

"(i) liberated during qualified coal mining operations, or

"(ii) extracted up to 5 years in advance of qualified coal mining operations as part of a specific plan to mine a coal deposit.

"(C) SPECIAL RULE FOR ADVANCED EXTRACTION.—In the case of coalmine methane gas which is captured in advance of qualified coal mining operations, the credit under subsection (a) shall be allowed only after the date the coal extraction occurs in the immediate area where the coalmine methane gas was removed.

"(D) NONCOMPLIANCE WITH POLLUTION LAWS.—For purposes of subparagraphs (B) and (C), coal mining operations which are not in compliance with the applicable State and Federal pollution prevention, control, and permit requirements for any period of time shall not be considered to be qualified coal mining operations during such period.

"(5) FACILITIES PRODUCING FUELS FROM AGRICULTURAL AND ANIMAL WASTE.—

"(A) IN GENERAL.—In the case of facility for producing liquid, gaseous, or solid fuels from qualified agricultural and animal wastes, including such fuels when used as feedstocks, which was placed in service after the date of the enactment of this subsection and before January 1, 2005, this section shall apply with respect to fuel produced at such facility not later than the close of the 3-year period beginning on the date such facility is placed in service.

"(B) QUALIFIED AGRICULTURAL AND ANIMAL WASTE.—For purposes of this paragraph, the term 'qualified agricultural and animal waste' means agriculture and animal waste, including by-products, packaging, and any materials associated with the processing, feeding, selling, transporting, or disposal of agricultural or animal products or wastes, including wood shavings, straw, rice hulls, and other bedding for the disposition of manure.

"(6) CREDIT AMOUNT.—In determining the amount of credit allowable under this section solely by reason of this subsection, the dollar amount appli-

cable under subsection (a)(1) shall be $3 (without regard to subsection (b)(2)).".

(b) EXTENSION FOR CERTAIN FUEL PRODUCED AT EXISTING FACILITIES.—Paragraph (2) of section 29(f) (relating to application of section) is amended by inserting "(January 1, 2005, in the case of any coke, coke gas, or natural gas and byproducts produced by coal gasification from lignite in a facility described in paragraph (1)(B))" after "January 1, 2003".

(c) EFFECTIVE DATE.—The amendment made by this section shall apply to fuel sold after the date of the enactment of this Act.

SEC. 2311. NATURAL GAS DISTRIBUTION LINES TREATED AS 15-YEAR PROPERTY.

(a) IN GENERAL.—Subparagraph (E) of section 168(e)(3) (relating to classification of certain property) is amended by striking "and" at the end of clause (ii), by striking the period at the end of clause (iii) and by inserting ", and", and by adding at the end the following new clause:

"(iv) any natural gas distribution line.".

(b) ALTERNATIVE SYSTEM.—The table contained in section 168(g)(3)(B), as amended by this Act, is amended

by adding after the item relating to subparagraph (E)(iii) the following new item:

"(E)(iv) ..... 20".

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, in taxable years ending after such date.

TITLE XXIV—ELECTRIC UTILITY RESTRUCTURING PROVISIONS

SEC. 2401. ONGOING STUDY AND REPORTS REGARDING TAX ISSUES RESULTING FROM FUTURE RESTRUCTURING DECISIONS.

(a) ONGOING STUDY.—The Secretary of the Treasury, after consultation with the Federal Energy Regulatory Commission, shall undertake an ongoing study of Federal tax issues resulting from nontax decisions on the restructuring of the electric industry. In particular, the study shall focus on the effect on tax-exempt bonding authority of public power entities and on corporate restructuring which results from the restructuring of the electric industry.

(b) REGULATORY RELIEF.—In connection with the study described in subsection (a), the Secretary of the Treasury should exercise the Secretary's authority, as appropriate, to modify or suspend regulations that may impede an electric utility company's ability to reorganize its capital stock structure to respond to a competitive marketplace.

(c) REPORTS.—The Secretary of the Treasury shall report to the Committee on Finance of the Senate and the Committee on Ways and Means of the House of Representatives not later than December 31, 2002, regarding Federal tax issues identified under the study described in subsection (a), and at least annually thereafter, regarding such issues identified since the preceding report. Such reports shall also include such legislative recommendations regarding changes to the private business use rules under subpart A of part IV of subchapter B of chapter 1 of the Internal Revenue Code of 1986 as the Secretary of the Treasury deems necessary. The reports shall continue until such time as the Federal Energy Regulatory Commission has completed the restructuring of the electric industry.

SEC. 2402. MODIFICATIONS TO SPECIAL RULES FOR NUCLEAR DECOMMISSIONING COSTS.

(a) REPEAL OF LIMITATION ON DEPOSITS INTO FUND BASED ON COST OF SERVICE; CONTRIBUTIONS AFTER FUNDING PERIOD.—Subsection (b) of section 468A is amended to read as follows:

"(b) LIMITATION ON AMOUNTS PAID INTO FUND.—The amount which a taxpayer may pay into the Fund for any taxable year shall not exceed the ruling amount applicable to such taxable year.".

(b) CLARIFICATION OF TREATMENT OF FUND TRANSFERS.—Subsection (e) of section 468A is amended by adding at the end the following new paragraph:

"(8) TREATMENT OF FUND TRANSFERS.—If, in connection with the transfer of the taxpayer's interest in a nuclear power plant, the taxpayer transfers the Fund with respect to such power plant to the transferee of such interest and the transferee elects to continue the application of this section to such Fund—

"(A) the transfer of such Fund shall not cause such Fund to be disqualified from the application of this section, and

"(B) no amount shall be treated as distributed from such Fund, or be includible in gross income, by reason of such transfer.".

(c) DEDUCTION FOR NUCLEAR DECOMMISSIONING COSTS WHEN PAID.—Paragraph (2) of section 468A(c) is amended to read as follows:

"(2) DEDUCTION OF NUCLEAR DECOMMISSIONING COSTS.—In addition to any deduction under subsection (a), nuclear decommissioning costs paid or incurred by the taxpayer during any taxable year shall constitute ordinary and necessary expenses in carrying on a trade or business under section 162.".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after December 31, 2002.

SEC. 2403. TREATMENT OF CERTAIN INCOME OF COOPERATIVES.

(a) INCOME FROM OPEN ACCESS AND NUCLEAR DECOMMISSIONING TRANSACTIONS.—

(1) IN GENERAL.—Subparagraph (C) of section 501(c)(12) is amended by striking "or" at the end of clause (i), by striking clause (ii), and by adding at the end the following new clauses:

"(ii) from any open access transaction (other than income received or accrued directly or indirectly from a member),

"(iii) from any nuclear decommissioning transaction,

"(iv) from any asset exchange or conversion transaction, or

"(v) from the prepayment of any loan, debt, or obligation made, insured, or guaranteed under the Rural Electrification Act of 1936.".

(2) DEFINITIONS AND SPECIAL RULES.—Paragraph (12) of section 501(c) is amended by adding at the end the following new subparagraphs:

"(E) For purposes of subparagraph (C)(ii)—

"(i) The term 'open access transaction' means any transaction meeting the open access requirements of any of the following subclauses with respect to a mutual or cooperative electric company:

"(I) The provision or sale of transmission service or ancillary services meets the open access requirements of this subclause only if such services are provided on a nondiscriminatory open access basis pursuant to an open access transmission tariff filed with and approved by FERC, including an acceptable reciprocity tariff, or under a regional transmission organization agreement approved by FERC.

"(II) The provision or sale of electric energy distribution services or ancillary services meets the open access requirements of this subclause only if such services are provided on a nondiscriminatory open access basis to end-users served by distribution facili-

ties owned by the mutual or cooperative electric company (or its members).

"(III) The delivery or sale of electric energy generated by a generation facility meets the open access requirements of this subclause only if such facility is directly connected to distribution facilities owned by the mutual or cooperative electric company (or its members) which owns the generation facility, and such distribution facilities meet the open access requirements of subclause (II).

"(ii) Clause (i)(I) shall apply in the case of a voluntarily filed tariff only if the mutual or cooperative electric company files a report with FERC within 90 days after the date of the enactment of this subparagraph relating to whether or not such company will join a regional transmission organization.

"(iii) A mutual or cooperative electric company shall be treated as meeting the open access requirements of clause (i)(I) if

a regional transmission organization controls the transmission facilities.

"(iv) References to FERC in this subparagraph shall be treated as including references to the Public Utility Commission of Texas with respect to any ERCOT utility (as defined in section 212(k)(2)(B) of the Federal Power Act (16 U.S.C. 824k(k)(2)(B))) or references to the Rural Utilities Service with respect to any other facility not subject to FERC jurisdiction.

"(v) For purposes of this subparagraph—

"(I) The term 'transmission facility' means an electric output facility (other than a generation facility) that operates at an electric voltage of 69 kV or greater. To the extent provided in regulations, such term includes any output facility that FERC determines is a transmission facility under standards applied by FERC under the Federal Power Act (as in effect on the date of the enactment of the Energy Tax Incentives Act of 2002).

"(II) The term 'regional transmission organization' includes an independent system operator.

"(III) The term 'FERC' means the Federal Energy Regulatory Commission.

"(F) The term 'nuclear decommissioning transaction' means—

"(i) any transfer into a trust, fund, or instrument established to pay any nuclear decommissioning costs if the transfer is in connection with the transfer of the mutual or cooperative electric company's interest in a nuclear power plant or nuclear power plant unit,

"(ii) any distribution from any trust, fund, or instrument established to pay any nuclear decommissioning costs, or

"(iii) any earnings from any trust, fund, or instrument established to pay any nuclear decommissioning costs.

"(G) The term 'asset exchange or conversion transaction' means any voluntary exchange or involuntary conversion of any property related to generating, transmitting, distributing, or sell-

ing electric energy by a mutual or cooperative electric company, the gain from which qualifies for deferred recognition under section 1031 or 1033, but only if the replacement property acquired by such company pursuant to such section constitutes property which is used, or to be used, for—

"(i) generating, transmitting, distributing, or selling electric energy, or

"(ii) producing, transmitting, distributing, or selling natural gas.".

(b) TREATMENT OF INCOME FROM LOAD LOSS TRANSACTIONS.—Paragraph (12) of section 501(c), as amended by subsection (a)(2), is amended by adding after subparagraph (G) the following new subparagraph:

"(H)(i) In the case of a mutual or cooperative electric company described in this paragraph or an organization described in section 1381(a)(2)(C), income received or accrued from a load loss transaction shall be treated as an amount collected from members for the sole purpose of meeting losses and expenses.

"(ii) For purposes of clause (i), the term 'load loss transaction' means any wholesale or retail sale of electric energy (other than to mem-

bers) to the extent that the aggregate sales during the recovery period does not exceed the load loss mitigation sales limit for such period.

"(iii) For purposes of clause (ii), the load loss mitigation sales limit for the recovery period is the sum of the annual load losses for each year of such period.

"(iv) For purposes of clause (iii), a mutual or cooperative electric company's annual load loss for each year of the recovery period is the amount (if any) by which—

"(I) the megawatt hours of electric energy sold during such year to members of such electric company are less than

"(II) the megawatt hours of electric energy sold during the base year to such members.

"(v) For purposes of clause (iv)(II), the term 'base year' means—

"(I) the calendar year preceding the start-up year, or

"(II) at the election of the electric company, the second or third calendar years preceding the start-up year.

"(vi) For purposes of this subparagraph, the recovery period is the 7-year period beginning with the start-up year.

"(vii) For purposes of this subparagraph, the start-up year is the calendar year which includes the date of the enactment of this subparagraph or, if later, at the election of the mutual or cooperative electric company—

"(I) the first year that such electric company offers nondiscriminatory open access, or

"(II) the first year in which at least 10 percent of such electric company's sales are not to members of such electric company.

"(viii) A company shall not fail to be treated as a mutual or cooperative company for purposes of this paragraph or as a corporation operating on a cooperative basis for purposes of section 1381(a)(2)(C) by reason of the treatment under clause (i).

"(ix) In the case of a mutual or cooperative electric company, income from any open access transaction received, or accrued, indirectly from a member shall be treated as an amount collected

from members for the sole purpose of meeting losses and expenses.".

(c) EXCEPTION FROM UNRELATED BUSINESS TAXABLE INCOME.—Subsection (b) of section 512 (relating to modifications) is amended by adding at the end the following new paragraph:

"(18) TREATMENT OF MUTUAL OR COOPERATIVE ELECTRIC COMPANIES.—In the case of a mutual or cooperative electric company described in section 501(c)(12), there shall be excluded income which is treated as member income under subparagraph (H) thereof.".

(d) CROSS REFERENCE.—Section 1381 is amended by adding at the end the following new subsection:

"(c) CROSS REFERENCE.—

"For treatment of income from load loss transactions of organizations described in subsection (a)(2)(C), see section 501(c)(12)(H).".

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act.

SEC. 2404. SALES OR DISPOSITIONS TO IMPLEMENT FEDERAL ENERGY REGULATORY COMMISSION OR STATE ELECTRIC RESTRUCTURING POLICY.

(a) IN GENERAL.—Section 451 (relating to general rule for taxable year of inclusion) is amended by adding at the end the following new subsection:

"(i) SPECIAL RULE FOR SALES OR DISPOSITIONS TO IMPLEMENT FEDERAL ENERGY REGULATORY COMMISSION OR STATE ELECTRIC RESTRUCTURING POLICY.—

"(1) IN GENERAL.—For purposes of this subtitle, if a taxpayer elects the application of this subsection to a qualifying electric transmission transaction in any taxable year—

"(A) any ordinary income derived from such transaction which would be required to be recognized under section 1245 or 1250 for such taxable year (determined without regard to this subsection), and

"(B) any income derived from such transaction in excess of such ordinary income which is required to be included in gross income for such taxable year,

shall be so recognized and included ratably over the 8-taxable year period beginning with such taxable year.

"(2) QUALIFYING ELECTRIC TRANSMISSION TRANSACTION.—For purposes of this subsection, the term 'qualifying electric transmission transaction' means any sale or other disposition before January 1, 2007, of—

"(A) property used by the taxpayer in the trade or business of providing electric transmission services, or

"(B) any stock or partnership interest in a corporation or partnership, as the case may be, whose principal trade or business consists of providing electric transmission services,

but only if such sale or disposition is to an independent transmission company.

"(3) INDEPENDENT TRANSMISSION COMPANY.—For purposes of this subsection, the term 'independent transmission company' means—

"(A) a regional transmission organization approved by the Federal Energy Regulatory Commission,

"(B) a person—

"(i) who the Federal Energy Regulatory Commission determines in its authorization of the transaction under section 203 of the Federal Power Act (16 U.S.C. 824b) is not a market participant within the meaning of such Commission's rules applicable to regional transmission organizations, and

"(ii) whose transmission facilities to which the election under this subsection applies are under the operational control of a Federal Energy Regulatory Commission-approved regional transmission organization before the close of the period specified in such authorization, but not later than the close of the period applicable under paragraph (1), or

"(C) in the case of facilities subject to the exclusive jurisdiction of the Public Utility Commission of Texas, a person which is approved by that Commission as consistent with Texas State law regarding an independent transmission organization.

"(4) ELECTION.—An election under paragraph (1), once made, shall be irrevocable.

"(5) NONAPPLICATION OF INSTALLMENT SALES TREATMENT.—Section 453 shall not apply to any qualifying electric transmission transaction with respect to which an election to apply this subsection is made.".

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to transactions occurring after the date of the enactment of this Act.

SEC. 2405. APPLICATION OF TEMPORARY REGULATIONS TO CERTAIN OUTPUT CONTRACTS.

In the application of section 1–141–7(c)(4) of the Treasury Temporary Regulations to output contracts entered into after February 22, 1998, with respect to an issuer participating in open access with respect to the issuer's transmission facilities, an output contract in existence on or before such date that is amended after such date shall be treated as a contract entered into after such date only if the amendment increases the amount of output sold under such contract by extending the term of the contract or increasing the amount of output sold, but such treatment as a contract entered into after such date shall begin on the effective date of the amendment and shall apply only with respect to the increased output to be provided under such contract.

SEC. 2406. TREATMENT OF CERTAIN DEVELOPMENT INCOME OF COOPERATIVES.

(a) IN GENERAL.—Subparagraph (C) of section 501(c)(12), as amended by this Act, is amended by striking "or" at the end of clause (iv), by striking the period at the end of clause (v) and insert ", or", and by adding at the end the following new clause:

"(vi) from the receipt before January 1, 2007, of any money, property, capital, or any other contribution in aid of construc-

tion or connection charge intended to facilitate the provision of electric service for the purpose of developing qualified fuels from nonconventional sources (within the meaning of section 29).".

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act.

TITLE XXV—ADDITIONAL PROVISIONS

SEC. 2501. EXTENSION OF ACCELERATED DEPRECIATION AND WAGE CREDIT BENEFITS ON INDIAN RESERVATIONS.

(a) SPECIAL RECOVERY PERIOD FOR PROPERTY ON INDIAN RESERVATIONS.—Section 168(j)(8) (relating to termination), as amended by section 613(b) of the Job Creation and Worker Assistance Act of 2002, is amended by striking "2004" and inserting "2005".

(b) INDIAN EMPLOYMENT CREDIT.—Section 45A(f) (relating to termination), as amended by section 613(a) of the Job Creation and Worker Assistance Act of 2002, is amended by striking "2004" and inserting "2005".

SEC. 2502. STUDY OF EFFECTIVENESS OF CERTAIN PROVISIONS BY GAO.

(a) STUDY.—The Comptroller General of the United States shall undertake an ongoing analysis of—

(1) the effectiveness of the alternative motor vehicles and fuel incentives provisions under title II and the conservation and energy efficiency provisions under title III, and

(2) the recipients of the tax benefits contained in such provisions, including an identification of such recipients by income and other appropriate measurements.

Such analysis shall quantify the effectiveness of such provisions by examining and comparing the Federal Government's forgone revenue to the aggregate amount of energy actually conserved and tangible environmental benefits gained as a result of such provisions.

(b) REPORTS.—The Comptroller General of the United States shall report the analysis required under subsection (a) to Congress not later than December 31, 2002, and annually thereafter.

SEC. 2503. CREDIT FOR PRODUCTION OF ALASKA NATURAL GAS.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits), as

amended by this Act, is amended by adding at the end the following new section:

"SEC. 45M. ALASKA NATURAL GAS.

"(a) IN GENERAL.—For purposes of section 38, the Alaska natural gas credit of any taxpayer for any taxable year is the credit amount per 1,000,000 Btu of Alaska natural gas entering any intake or tie-in point which was derived from an area of the State of Alaska lying north of 64 degrees North latitude, which is attributable to the taxpayer and sold by or on behalf of the taxpayer to an unrelated person during such taxable year (within the meaning of section 45).

"(b) CREDIT AMOUNT.—For purposes of this section—

"(1) IN GENERAL.—The credit amount per 1,000,000 Btu of Alaska natural gas entering any intake or tie-in point which was derived from an area of the State of Alaska lying north of 64 degrees North latitude (determined in United States dollars), is the excess of—

"(A) $3.25, over

"(B) the average monthly price at the AECO C Hub in Alberta, Canada, for Alaska natural gas for the month in which occurs the date of such entering.

"(2) INFLATION ADJUSTMENT.—In the case of any taxable year beginning in a calendar year after the first calendar year ending after the date described in subsection (g)(1), the dollar amount contained in paragraph (1)(A) shall be increased to an amount equal to such dollar amount multiplied by the inflation adjustment factor for such calendar year (determined under section 43(b)(3)(B) by substituting 'the calendar year ending before the date described in section 45M(g)(1)' for '1990').

"(c) ALASKA NATURAL GAS.—For purposes of this section, the term 'Alaska natural gas' means natural gas entering any intake or tie-in point which was derived from an area of the State of Alaska lying north of 64 degrees North latitude produced in compliance with the applicable State and Federal pollution prevention, control, and permit requirements from the area generally known as the North Slope of Alaska (including the continental shelf thereof within the meaning of section 638(l)), determined without regard to the area of the Alaska National Wildlife Refuge (including the continental shelf thereof within the meaning of section 638(l)).

"(d) RECAPTURE.—

"(1) IN GENERAL.—With respect to each 1,000,000 Btu of Alaska natural gas entering any in-

take or tie-in point which was derived from an area of the State of Alaska lying north of 64 degrees North latitude after the date which is 3 years after the date described in subsection (g)(1), if the average monthly price described in subsection (b)(1)(B) exceeds 150 percent of the amount described in subsection (b)(1)(A) for the month in which occurs the date of such entering, the taxpayer's tax under this chapter for the taxable year shall be increased by an amount equal to the lesser of—

"(A) such excess, or

"(B) the aggregate decrease in the credits allowed under section 38 for all prior taxable years which would have resulted if the Alaska natural gas credit received by the taxpayer for such years had been zero.

"(2) SPECIAL RULES.—

"(A) TAX BENEFIT RULE.—The tax for the taxable year shall be increased under paragraph (1) only with respect to credits allowed by reason of this section which were used to reduce tax liability. In the case of credits not so used to reduce tax liability, the carryforwards and carrybacks under section 39 shall be appropriately adjusted.

"(B) NO CREDITS AGAINST TAX.—Any increase in tax under this subsection shall not be treated as a tax imposed by this chapter for purposes of determining the amount of any credit under this chapter or for purposes of section 55.

"(e) APPLICATION OF RULES.—For purposes of this section, rules similar to the rules of paragraphs (3), (4), and (5) of section 45(d) shall apply.

"(f) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter for any fuel taken into account in computing the amount of the credit determined under subsection (a) shall be reduced by the amount of such credit attributable to such fuel.

"(g) APPLICATION OF SECTION.—This section shall apply to Alaska natural gas entering any intake or tie-in point which was derived from an area of the State of Alaska lying north of 64 degrees North latitude for the period—

"(1) beginning with the later of—

"(A) January 1, 2010, or

"(B) the initial date for the interstate transportation of such Alaska natural gas, and

"(2) except with respect to subsection (d), ending with the date which is 15 years after the date described in paragraph (1).".

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking "plus" at the end of paragraph (22), by striking the period at the end of paragraph (23) and inserting ", plus", and by adding at the end the following new paragraph:

"(24) The Alaska natural gas credit determined under section 45M(a).".

(c) ALLOWING CREDIT AGAINST ENTIRE REGULAR TAX AND MINIMUM TAX.—

(1) IN GENERAL.—Subsection (c) of section 38 (relating to limitation based on amount of tax), as amended by this Act, is amended by redesignating paragraph (5) as paragraph (6) and by inserting after paragraph (4) the following new paragraph:

"(5) SPECIAL RULES FOR ALASKA NATURAL GAS CREDIT.—

"(A) IN GENERAL.—In the case of the Alaska natural gas credit—

"(i) this section and section 39 shall be applied separately with respect to the credit, and

"(ii) in applying paragraph (1) to the credit—

"(I) the amounts in subparagraphs (A) and (B) thereof shall be treated as being zero, and

"(II) the limitation under paragraph (1) (as modified by subclause (I)) shall be reduced by the credit allowed under subsection (a) for the taxable year (other than the Alaska natural gas credit).

"(B) ALASKA NATURAL GAS CREDIT.—For purposes of this subsection, the term 'Alaska natural gas credit' means the credit allowable under subsection (a) by reason of section 45M(a).".

(2) CONFORMING AMENDMENTS.—Subclause (II) of section 38(c)(2)(A)(ii), as amended by this Act, subclause (II) of section 38(c)(3)(A)(ii), as amended by this Act, and subclause (II) of section 38(c)(4)(A)(ii), as added by this Act, are each amended by inserting "or the Alaska natural gas credit" after "producer credit".

(d) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 45M. Alaska natural gas.".

SEC. 2504. SALE OF GASOLINE AND DIESEL FUEL AT DUTY-FREE SALES ENTERPRISES.

(a) PROHIBITION.—Section 555(b) of the Tariff Act of 1930 (19 U.S.C. 1555(b)) is amended—

(1) by redesignating paragraphs (6) through (8) as paragraphs (7) through (9), respectively; and

(2) by inserting after paragraph (5) the following:

"(6) Any gasoline or diesel fuel sold at a duty-free sales enterprise shall be considered to be entered for consumption into the customs territory of the United States.".

(b) CONSTRUCTION.—The amendments made by this section shall not be construed to create any inference with respect to the interpretation of any provision of law as such provision was in effect on the day before the date of enactment of this Act.

(c) EFFECTIVE DATE.—The amendments made by this section shall take effect on the date of enactment of this Act.

SEC. 2505. TREATMENT OF DAIRY PROPERTY.

(a) QUALIFIED DISPOSITION OF DAIRY PROPERTY TREATED AS INVOLUNTARY CONVERSION.—

(1) IN GENERAL.—Section 1033 (relating to involuntary conversions) is amended by designating subsection (k) as subsection (l) and inserting after subsection (j) the following new subsection:

"(k) QUALIFIED DISPOSITION TO IMPLEMENT BOVINE TUBERCULOSIS ERADICATION PROGRAM.—

"(1) IN GENERAL.—For purposes of this subtitle, if a taxpayer elects the application of this subsection to a qualified disposition:

"(A) TREATMENT AS INVOLUNTARY CONVERSION.—Such disposition shall be treated as an involuntary conversion to which this section applies.

"(B) MODIFICATION OF SIMILAR PROPERTY REQUIREMENT.—Property to be held by the taxpayer either for productive use in a trade or business or for investment shall be treated as property similar or related in service or use to the property disposed of.

"(C) EXTENSION OF PERIOD FOR REPLACING PROPERTY.—Subsection (a)(2)(B)(i) shall be applied by substituting '4 years' for '2 years'.

"(D) WAIVER OF UNRELATED PERSON REQUIREMENT.—Subsection (i) (relating to replacement property must be acquired from unrelated person in certain cases) shall not apply.

"(E) EXPANDED CAPITAL GAIN FOR CATTLE AND HORSES.—Section 1231(b)(3)(A) shall be

applied by substituting '1 month' for '24 months'.

"(2) QUALIFIED DISPOSITION.—

"(A) IN GENERAL.—For purposes of this subsection, the term 'qualified disposition' means the disposition of dairy property which is certified by the Secretary of Agriculture as having been the subject of an agreement under the bovine tuberculosis eradication program, as implemented pursuant to the Declaration of Emergency Because of Bovine Tuberculosis (65 Federal Register 63,227 (2000)).

"(B) PAYMENTS RECEIVED IN CONNECTION WITH THE BOVINE TUBERCULOSIS ERADICATION PROGRAM.—For purposes of this subsection, any amount received by a taxpayer in connection with an agreement under such bovine tuberculosis eradication program shall be treated as received in a qualified disposition.

"(C) TRANSMITTAL OF CERTIFICATIONS.—The Secretary of Agriculture shall transmit copies of certifications under this paragraph to the Secretary.

"(3) ALLOWANCE OF THE ADJUSTED BASIS OF CERTIFIED DAIRY PROPERTY AS A DEPRECIATION DE-

DUCTION.—The adjusted basis of any property certified under paragraph (2)(A) shall be allowed as a depreciation deduction under section 167 for the taxable year which includes the date of the certification described in paragraph (2)(A).

"(4) DAIRY PROPERTY.—For purposes of this subsection, the term 'dairy property' means all tangible or intangible property used in connection with a dairy business or a dairy processing plant.

"(5) SPECIAL RULES FOR CERTAIN BUSINESS ORGANIZATIONS.—

"(A) S CORPORATIONS.—In the case of an S corporation, gain on a qualified disposition shall not be treated as recognized for the purposes of section 1374 (relating to tax imposed on certain built-in gains).

"(B) PARTNERSHIPS.—In the case of a partnership which dissolves in anticipation of a qualified disposition (including in anticipation of receiving the amount described in paragraph (2)(B)), the dairy property owned by the partners of such partnership at the time of such disposition shall be treated, for the purposes of this section and notwithstanding any regulation or

rule of law, as owned by such partners at the time of such disposition.

"(6) TERMINATION.—This subsection shall not apply to dispositions made after December 31, 2006.".

(2) EFFECTIVE DATE.—The amendment made by this subsection shall apply to dispositions made and amounts received in taxable years ending after May 22, 2001.

(b) DEDUCTION OF QUALIFIED RECLAMATION EXPENDITURES.—

(1) IN GENERAL.—Part VI of subchapter B of chapter 1 (relating to itemized deductions for individuals and corporations), as amended by this Act, is amended by adding at the end the following new section:

"SEC. 199B. EXPENSING OF DAIRY PROPERTY RECLAMATION COSTS.

"(a) IN GENERAL.—Notwithstanding section 280B (relating to demolition of structures), a taxpayer may elect to treat any qualified reclamation expenditure which is paid or incurred by the taxpayer as an expense which is not chargeable to capital account. Any expenditure which is so treated shall be allowed as a deduction for the taxable year in which it is paid or incurred.

"(b) QUALIFIED RECLAMATION EXPENDITURE.—

"(1) IN GENERAL.—For purposes of this subparagraph, the term 'qualified reclamation expenditure' means amounts otherwise chargeable to capital account and paid or incurred to convert any real property certified under section 1033(k)(2) (relating to qualified disposition) into unimproved land.

"(2) SPECIAL RULE FOR EXPENDITURES FOR DEPRECIABLE PROPERTY.—A rule similar to the rule of section 198(b)(2) (relating to special rule for expenditures for depreciable property) shall apply for purposes of paragraph (1).

"(c) DEDUCTION RECAPTURED AS ORDINARY INCOME.—Rules similar to the rules of section 198(e) (relating to deduction recaptured as ordinary income on sale, etc.) shall apply with respect to any qualified reclamation expenditure.

"(d) TERMINATION.—This section shall not apply to expenditures paid or incurred after December 31, 2006.".

(2) CLERICAL AMENDMENT.—The table of sections for part VI of subchapter B of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

"Sec. 199B. Expensing of dairy property reclamation costs.".

(3) EFFECTIVE DATE.—The amendments made by this subsection shall apply to expenditures paid or incurred in taxable years ending after May 22, 2001.

SEC. 2506. CLARIFICATION OF EXCISE TAX EXEMPTIONS FOR AGRICULTURAL AERIAL APPLICATORS.

(a) NO WAIVER BY FARM OWNER, TENANT, OR OPERATOR NECESSARY.—Subparagraph (B) of section 6420(c)(4) (relating to certain farming use other than by owner, etc.) is amended to read as follows:

> *"(B) if the person so using the gasoline is an aerial or other applicator of fertilizers or other substances and is the ultimate purchaser of the gasoline, then subparagraph (A) of this paragraph shall not apply and the aerial or other applicator shall be treated as having used such gasoline on a farm for farming purposes.".*

(b) EXEMPTION INCLUDES FUEL USED BETWEEN AIRFIELD AND FARM.—Section 6420(c)(4), as amended by subsection (a), is amended by adding at the end the following new flush sentence:

> *"For purposes of this paragraph, in the case of an aerial applicator, gasoline shall be treated as used on a farm for farming purposes if the gasoline is used for the direct flight between the airfield and 1 or more farms.".*

(c) EXEMPTION FROM TAX ON AIR TRANSPORTATION OF PERSONS FOR FORESTRY PURPOSES EXTENDED TO FIXED-WING AIRCRAFT.—Subsection (f) of section 4261 (re-

lating to tax on air transportation of persons) is amended to read as follows:

"(f) EXEMPTION FOR CERTAIN USES.—No tax shall be imposed under subsection (a) or (b) on air transportation—

"(1) by helicopter for the purpose of transporting individuals, equipment, or supplies in the exploration for, or the development or removal of, hard minerals, oil, or gas, or

"(2) by helicopter or by fixed-wing aircraft for the purpose of the planting, cultivation, cutting, or transportation of, or caring for, trees (including logging operations),

but only if the helicopter or fixed-wing aircraft does not take off from, or land at, a facility eligible for assistance under the Airport and Airway Development Act of 1970, or otherwise use services provided pursuant to section 44509 or 44913(b) or subchapter I of chapter 471 of title 49, United States Code, during such use. In the case of helicopter transportation described in paragraph (1), this subsection shall be applied by treating each flight segment as a distinct flight.".

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to fuel use or air transportation after December 31, 2001, and before January 1, 2003.

SEC. 2507. MODIFICATION OF RURAL AIRPORT DEFINITION.

(a) IN GENERAL.—Clause (ii) of section 4261(e)(1)(B) (defining rural airport) is amended by striking the period at the end of subclause (II) and inserting ", or" and by adding at the end the following new subclause:

"(III) is not connected by paved roads to another airport.".

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to calendar years beginning after 2002.

SEC. 2508. EXEMPTION FROM TICKET TAXES FOR TRANSPORTATION PROVIDED BY SEAPLANES.

(a) IN GENERAL.—The taxes imposed by sections 4261 and 4271 shall not apply to transportation by a seaplane with respect to any segment consisting of a takeoff from, and a landing on, water.

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to calendar years beginning after 2002.

DIVISION I—IRAQ OIL IMPORT RESTRICTION

TITLE XXVI—IRAQ OIL IMPORT RESTRICTION

SEC. 2601. SHORT TITLE AND FINDINGS.

(a) SHORT TITLE.—This title can be cited as the "Iraq Petroleum Import Restriction Act of 2002".

(b) FINDINGS.—Congress finds that—

(1) the Government of the Republic of Iraq—

(A) has failed to comply with the terms of United Nations Security Council Resolution 687 regarding unconditional Iraqi acceptance of the destruction, removal, or rendering harmless, under international supervision, of all nuclear, chemical and biological weapons and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities, as well as all ballistic missiles with a range greater than 150 kilometers and related major parts, and repair and production facilities and has failed to allow United Nations inspectors access to sites used for the production or storage of weapons of mass destruction;

(B) routinely contravenes the terms and. conditions of UNSC Resolution 661, authorizing the export of petroleum products from Iraq in exchange for food, medicine and other humanitarian products by conducting a routine and extensive program to sell such products outside of the channels established by UNSC Resolution 661 in exchange for military equipment and materials to be used in pursuit of its program to develop weapons of mass destruction in order to

threaten the United States and its allies in the Persian Gulf and surrounding regions;

(C) has failed to adequately draw down upon the amounts received in the Escrow Account established by UNSC Resolution 986 to purchase food, medicine and other humanitarian products required by its citizens, resulting in massive humanitarian suffering by the Iraqi people;

(D) conducts a periodic and systematic campaign to harass and obstruct the enforcement of the United States- and United Kingdom-enforced "No-Fly Zones" in effect in the Republic of Iraq;

(E) routinely manipulates the petroleum export production volumes permitted under UNSC Resolution 661 in order to create uncertainty in global energy markets, and therefore threatens the economic security of the United States;

(F) pays bounties to the families of suicide bombers in order to encourage the murder of Israeli civilians;

(2) further imports of petroleum products from the Republic of Iraq are inconsistent with the national security and foreign policy interests of the

United States and should be eliminated until such time as they are not so inconsistent.

SEC. 2602. PROHIBITION ON IRAQI-ORIGIN PETROLEUM IMPORTS.

The direct or indirect import from Iraq of Iraqi-origin petroleum and petroleum products is prohibited, notwithstanding an authorization by the Committee established by UNSC Resolution 661 or its designee, or any other order to the contrary.

SEC. 2603. TERMINATION/PRESIDENTIAL CERTIFICATION.

This title will remain in effect until such time as the President, after consultation with the relevant committees in Congress, certifies to the Congress that—

(1) Iraq is in substantial compliance with the terms of—

(A) UNSC Resolution 687; and

(B) UNSC Resolution 986 prohibiting smuggling of oil in circumvention of the "Oil-for-Food" program; and

(2) ceases the practice of compensating the families of suicide bombers in order to encourage the murder of Israeli citizens; or that

(3) resuming the importation of Iraqi-origin petroleum and petroleum products would not be incon-

sistent with the national security and foreign policy interests of the United States.

SEC. 2604. HUMANITARIAN INTERESTS.

It is the sense of the Senate that the President should make all appropriate efforts to ensure that the humanitarian needs of the Iraqi people are not negatively affected by this Act, and should encourage through public, private, domestic and international means the direct or indirect sale, donation or other transfer to appropriate nongovernmental health and humanitarian organizations and individuals within Iraq of food, medicine and other humanitarian products.

SEC. 2605. DEFINITIONS.

(a) 661 COMMITTEE.—The term 661 Committee means the Security Council Committee established by UNSC Resolution 661, and persons acting for or on behalf of the Committee under its specific delegation of authority for the relevant matter or category of activity, including the overseers appointed by the United Nations Secretary-General to examine and approve agreements for purchases of petroleum and petroleum products from the Government of Iraq pursuant to UNSC Resolution 986.

(b) UNSC RESOLUTION 661.—The term UNSC Resolution 661 means United Nations Security Council Resolu-

tion No. 661, adopted August 6, 1990, prohibiting certain transactions with respect to Iraq and Kuwait.

(c) UNSC RESOLUTION 687.—The term UNSC Resolution 687 means United Nations Security Council Resolution 687, adopted April 3, 1991.

(d) UNSC RESOLUTION 986.—The term UNSC Resolution 986 means United Nations Security Council Resolution 986, adopted April 14, 1995.

SEC. 2606. EFFECTIVE DATE.

The prohibition on importation of Iraqi-origin petroleum and petroleum products shall be effective 30 days after enactment of this Act.

DIVISION J—MISCELLANEOUS

TITLE XXVII—MISCELLANEOUS PROVISION

SEC. 2701. FAIR TREATMENT OF PRESIDENTIAL JUDICIAL NOMINEES.

It is the sense of the Senate that, in the interests of the administration of justice, the Senate Judiciary Committee should along with its other legislative and oversight responsibilities, continue to hold regular hearings on judicial nominees and should, in accordance with the precedents and practices of the Committee, schedule hearings on the

1 *nominees submitted by the President on May 9, 2001, and*
2 *resubmitted on September 5, 2001, expeditiously.*

Attest:

Secretary.

107TH CONGRESS
2D SESSION

H. R. 4

AMENDMENT

April 26, 2002

Ordered to be printed as passed