As a Kansan and an American, I am very proud of the Buffalo Soldiers. In fact, this is a picture of the late Elmer Robinson, Sergeant 1st Class, 10th Cavalry. Mr. Robinson served his country valiantly from 1935 to 1955. After he retired, he was the first Buffalo Soldier to be buried in Leavenworth, KS until his death in July 2000. Over the years African-Americans continued to serve valiantly for our country such as with the Tuskegee Airmen in World War II and subsequent wars following. President Harry Truman issued an Executive Order that paved the way for our Armed Forces to end segregation.

Over the years, the military produced many distinguished African-Americans such as Benjamin O. Davis, Sr. He was the first African-American general in the regular Armed Forces and his son, Benjamin O. Davis, Jr., who became the second African-American general in the regular Armed Forces in the Air Force.

Finally, one of the most distinguished and recognized African-American military leaders in our Nation is Secretary of State, General Colin Powell. General Powell has served and continues to serve this country with distinction. He dedicated the monument we have, a statue of a Buffalo soldier on horseback in Leavenworth, KS.

During the late 1960s, former President George Bush nominated Secretary Powell as Chairman of the Joint Chiefs of Staff—becoming the first African-American to serve in this capacity. This would not be his last “African-American first” accomplishment however. After the election of President George W. Bush, the President nominated Secretary Powell to the position of Secretary of State where he serves currently with distinction.

This American history is just a glimpse of what I hope will be showcased on a national level. As you know, we recently passed legislation that creates a Presidential Commission charged with recommending a legislative bill to establish a National African-American history and culture museum in Washington, DC. It had been 70 years people had fought for this museum. We passed it last year. This is the first concrete step we have taken to properly honor the many contributions of African-Americans in this society. Currently, we are in the process of nominating the presidential commission and I am looking forward to the commission’s recommendations regarding establishing this museum on the National Mall—where it belongs.

Indeed, this country has been richly blessed by the contributions and sacrifices of African-Americans.

Cyrus Avery, Robert Smalls, the Buffalo Soldiers, and the Tuskegee Airmen only make up a fraction of Americans who believed in the ideals of America and were willing to “see beyond” the years of their oppression to a society that was fully inclusive of all citizens despite race.

Because of their sacrifices, our Nation has prospered and grown into the symbol of freedom around the world. As we continue to ensure our national freedom, we encourage you to join us and celebrate this magnificent American history; a history of a group of individuals who were brought to our shores in shackles, yet, helped remove “shackles” from our society to ensure that we live together in peace and prosperity.

I suggest the absence of a quorum. The PRESIDING OFFICER. The clerk will call the roll. The assistant legislative clerk proceeded to call the roll. Mr. REID. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

UNANIMOUS CONSENT AGREEMENT—AMENDMENT NO. 2917, AS MODIFIED

Mr. REID. Mr. President, I ask unanimous consent that amendment No. 2917 be made effective with the change at the desk, notwithstanding the pending policy of S. 517; that upon modification, the amendment be printed as a Senate document.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment, as modified, is as follows:

SECTION 1. SHORT TITLE.

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

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TITLE I—REGIONAL COORDINATION

SEC. 101. POLICY ON REGIONAL COORDINATION.
(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) assessing future supply availability and demand requirements,
(2) planning and siting additional energy infrastructure, including generating facilities, electric transmission facilities, pipelines, refineries, and distributed generation facilities to meet regional needs,
(3) identifying and resolving problems in distribution networks,
(4) developing plans to respond to system emergencies, 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 Chairmen 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), shall establish an agenda for each conference that promotes regional cooperation 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 organization’ means any person or Federal or State agency (including any municipality) that sells electric energy; such
term includes the Tennessee 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 described facilities under section 201(f) that owns or operates facilities used for the transmission of electric energy in—

(A) interstate commerce; or

(B) on the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof, of a value in excess of $1,000,000;

(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 transmission facilities used for the transmission of electric energy or for the production or transportation of natural gas.

(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 or 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 commissions intended to ensure adequate reserve mechanisms; and

(4) whether the sale is made in a competitive market; and

(5) whether market mechanisms, such as power exchanges and bid auctions, function adequately;

(6) the effect of demand response mechanisms; and

(7) other such considerations as the Commission may deem to be appropriate and in the public interest.''.

(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:

(1) Whenever the Commissioner, 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 Commissioner shall determine the just and reasonable rate and fix the same by order in accordance with this section, or order such other action as will, in the judgment of the Commissioner, adequately ensure a just and reasonable market-based rate.''.

SEC. 204. REFUND EFFECTIVE DATE.

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

(1) striking "60 days after the filing of such complaint nor later than 5 months after the expiration of such period" in the second sentence and inserting "on which the complaint is filed"; and

(2) striking "90 days after the publication by the Commission of notice of its intention to initiate such proceeding nor later than 5 months after the expiration of such 60-day period" in that sentence and inserting "on which the Commission publishes notice of its intention to initiate such proceeding".

SEC. 205. TRANSMISSION INTERCONNECTIONS.

Section 210 of the Federal Power Act (16 U.S.C. 824i) is amended to read as follows:

TRANSMISSION INTERCONNECTION AUTHORITY

"SEC. 210. (a) The Commission shall, by rule, establish technical standards and procedures for the interconnection of facilities used for the generation of electric energy with facilities used for the transmission of electric energy in interstate commerce. The rule shall provide—

(A) that no city or municipality may take action under this section that constitutes a private business use for purposes of section 214 of the Internal Revenue Code of 1986 (26 U.S.C. 141).

(B) The Commission may adopt and enforce, in whole or part, a reliability standard proposed or in part, a reliability standard proposed or adopted by the North American Electric Reliability Council, a regional reliability council, or a similar organization, or a State regulatory authority.

(C) In exercising its authority under paragraph (4), the Commission may require an unregulated transmitting utility to offer open access transmission service to a new entrant in order to meet the requirements of paragraph (4).

(5) The Commission may exempt from its authority under paragraph (1), the Commission may require transmission services to be offered on a non-discriminatory basis.

(6) The Commission may not require a public utility authorized to charge a market-based rate under section 205 to file a complaint.

(7) The Commission may, by rule or order, require an unregulated transmitting utility to provide transmission service to a new entrant in order to meet the requirements of paragraph (4).

SEC. 207. ELECTRIC RELIABILITY STANDARDS.

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

SEC. 215. ELECTRIC RELIABILITY STANDARDS.

(a) DUTY OF THE COMMISSION.—The Commission shall establish and enforce one or more systems of mandatory electric reliability standards to ensure the reliable operation of the interstate transmission system, which shall be applicable to—

(1) any entity that sells, purchases, or transmits, electric energy using the interstate transmission system, and

(2) any entity that owns, operates, or maintains facilities that are a part of the interstate transmission system.

(b) STANDARDS.—In carrying out its responsibility under subsection (a), the Commission may adopt and enforce, in whole or in part, a reliability standard proposed or adopted by the North American Electric Reliability Council, a regional reliability council, or a similar organization, or a State regulatory authority.

(c) ENFORCEMENT.—In carrying out its responsibility under subsection (a), the Commission may certify one or more self-regulating reliability organizations (which may
include the North American Electric Reliability Council, one or more regional reliability councils, one or more regional transmission organizations, or any similar organization, to ensure the reliable operation of the interstate transmission system and to monitor and enforce compliance of their members with electric reliability standards adopted under this section.

``(d) COOPERATION WITH CANADA AND MEXICO.—The Commission shall ensure that any self-regulating electric reliability organization certificated under this section, one or more of whose members are interconnected with transmitting utilities in Canada or the Republic of Mexico, provide for the participation of such utilities in the governance of the organization and the adoption of reliability standards resulting in this section shall be construed to extend the jurisdiction of the Commission outside of the United States.

``(e) PRESERVATION OF STATE AUTHORITY.—Nothing in this section shall be construed to preempt the authority of any State to take action to ensure the safety, adequacy, and reliability of local distribution facilities service within the State, except where the exercise of such authority unreasonably impairs the ability of the interstate transmission system.

``(f) DEFINITIONS.—For purposes of this section:

``(1) The term 'interstate transmission system' means the network of facilities used for the transmission of electric energy in interstate commerce.

``(2) The term 'reliability' means the ability of the interstate transmission system to transmit sufficient electric energy to supply the aggregate electric demand and energy requirements of communities all times and the ability of the system to withstand sudden disturbances.''.

SEC. 208. MARKET TRANSPARENCY RULES.

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

``SEC. 210. 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,' in the first sentence.

``(2) inserting 'transmitting utility' after 'licensse' each place it appears.

``(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. 210. 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 ‘licensse’ each place it appears.

``(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.’’

(b) INVESTIGATIONS.—Section 307(a) of the Federal Power Act (16 U.S.C. 825f) 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. 825l) 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.

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.


``(4) The term ‘company’ means a corporation, 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 23 and 33, respectively, of the Public Utility Holding Company Act of 1935 (15 U.S.C. 79q-5, 79q-6). For purposes of this section, those sections may be read 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 owning or 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 a holding company of any public utility company; and

``(b) any person, determined by the Commission, after notice and opportunity for hearing, to exercise direct or indirect control over a public utility company or holding company as to make it necessary or appropriate for the Commission to treat such person subject to the duties, powers, 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 or distribution of electricity in interstate commerce or the sale of electric energy at wholesale in interstate commerce, the transportation of natural gas in interstate commerce, or 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 for resale.

(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 has jurisdiction over such company under the jurisdiction of any State commission having 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 shall 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, directly or indirectly, entitled 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.


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 that Commission shall require—primary and secondary, and any 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 affiliate 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. 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, or other 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 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) LIMITATIONS.—Nothing in this section shall—

(1) apply to any person that is a holding company, solely by reason of ownership of one or more other persons;

(2) limit the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) to require disclosures to the public of any trade secrets or sensitive commercial information.

(c) EFFECT ON STATE LAW.—Nothing in this section shall preclude the Commission from exercising its jurisdiction under otherwise applicable law to protect utility customers.

(d) 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 such regulations as may be necessary or appropriate 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 governmental authorities.

(b) OTHER AUTHORITY.—The Commission shall make such determinations as shall be necessary or appropriate to implement this subtitle.

(1) QUALIFYING FACILITIES.—In determining whether a person is a qualifying facility, the Commission shall use as its sole standard whether the holder of the facility is under common control with the public utility company from which the facility is purchased.

(2) OTHER RATEMAKING.—If the Commission determines that a facility is not a qualifying facility, it may use any standard it deems necessary or appropriate.

SEC. 227. AFFILIATE TRANSACTIONS.

(a) COMMISSION AUTHORITY UNAFFECTED.—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 or for an associate company, or any rates that reflect the cost of goods or services acquired by such public utility company from an associate company.

(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 or for an associate company, or any rates that reflect the cost of goods or services acquired by such public utility company from an associate company.

(c) EXCEPTION ON OTHER REGULATORY SUBTITLES.—Except as otherwise specifically provided in this subtitle, no provision of this subtitle shall apply to, or be deemed included—

(1) the Federal Energy Regulatory Commission;

(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 are 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 COMPETITIVE MARKETS FOR ELECTRIC ENERGY.

(a) TASK FORCE.—There is established an inter-agency task force, to be known as the ‘‘Energy Market Task Force’’ (referred to in this section as the ‘‘task force’’), to be appointed by the chairman of the Federal Energy Regulatory Commission, to be appointed by the chairman of any State commission that is a member of the Federal Energy Regulatory Commission, or to be appointed by the chairman of that Commission; and

(b) DUTIES.—The task force shall—

(1) 1 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

(D) any other agencies with jurisdiction over competitive electric energy markets.

(2) consist of—

(A) one or more electric energy regulatory agencies;

(B) 2 persons with experience in the development and implementation of competition policy and practice; and

(C) 1 person with experience in the development and implementation of competition policy and practice for the utility sector.

(3) carry out such duties as are necessary to—

(A) conduct a study of—

(i) the competitive nature of energy wholesale markets for electric energy (including wholesale markets in the United States and in any foreign country or jurisdiction);

(ii) the extent to which wholesale electric energy markets are competitive; and

(iii) the extent to which wholesale electric energy markets are competitive in any foreign country or jurisdiction;

(B) make such recommendations as the task force deems necessary to promote competition in electric utility wholesale markets; and

(C) do all acts necessary or reasonable to implement recommendations of the task force on the competitive nature of electric utility wholesale markets.
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(2) 2 advisory members (who shall not vote), of whom—
(a) 1 shall be appointed by the Secretary of Agriculture to represent the Rural Utility Service;
(b) 1 shall be appointed by the Chairman of the Securities and Exchange Commission to represent that Commission.

(b) REPORT AND FOCUS.—
(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, or blocking 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.

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—
(I) promoting anticompetitive practices and other abuses by public utility holding companies, including cross-subsidization and other market power abuses; and
(II) 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 sums 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 210(g) of the Federal Power Act (16 U.S.C. 823g) 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 STANDARD.
(a) ADOPTION OF STANDARD.—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 pricing arrangement 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 and retail energy costs. An electric utility that provides electric 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 make a determination concerning whether it is appropriate to implement the standard set out in subparagraph (A) not later than one year after the date of enactment of this paragraph.”.
(b) SPECIAL RULES FOR REAL-TIME PRICING STANDARD.—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:
“(11) 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 communications 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 energy systems that compete with, provide 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 generating 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 a single 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 implement a ten-year plan to increase the efficiency of its fossil fuel generation and shall monitor and report to its State regulatory authority external costs resulting from the inefficient operation of its fossil fuel generating plants.”.

SEC. 243. TECHNICAL ASSISTANCE.
Section 132(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended to read as follows:
“(c) TECHNICAL ASSISTANCE FOR CERTAIN RESPONSIBILITIES.—The Secretary may provide technical assistance as he determines appropriate to assist State regulatory authorities and electric utilities in carrying out their responsibilities under section 111(d)(1) 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.—In the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obligation to assist State regulatory authorities and electric utilities in carrying out their responsibilities under section 111(d)(1) and paragraphs (6), (7), (8), and (9) of section 113(b).

(b) PURCHASE OF ELECTRIC ENERGY.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended to read as follows:
“(b) PURCHASE OF ELECTRIC ENERGY.—Each electric utility shall, at the request of an electric consumer, provide electric service under a real-time pricing arrangement 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 and retail energy costs, or a time-of-use pricing arrangement under which the rate charged by the electric utility varies by the day (or smaller time interval) according to changes in the electric utility’s wholesale and retail energy costs.

(c) 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:
“(c) TIME FOR ADOPTING STANDARDS.—The Secretary may, by rule, prescribe such standards as are necessary to achieve the purposes of implementing paragraphs (6), (7), (8), and (9) of subsection (b), any reference contained in the 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. 245. FOSSIL FUEL EFFICIENCY.
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 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 are required to be enforced to ensure that any electric utility shall comply with the provisions of this subsection.”.

SEC. 246. 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 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 are required to be enforced to ensure that any electric utility shall comply with the provisions of this subsection.”.
“(B) ‘qualifying cogeneration facility’ means a cogeneration facility that the Commission determines, by rule, meets such requirements (including requirements respecting the quantity of electric energy supplied by the facility) as the Commission may, by rule, prescribe.”.

SEC. 325. NET METERING.

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

“SEC. 363. NET METERING FOR RENEWABLE ENERGY AND FUEL CELLS.

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

“(1) The term ‘eligible on-site generating facility’ means—

“(A) a facility on the site of a residential electric consumer with a maximum generating capacity of 500 kilowatts or less that is fueled by solar energy, wind energy, or fuel cells; or

“(B) 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.

“(2) The term ‘net metering’ means energy supplied by the 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 from using, disclosing, or permitting access to such information unless the electric utility that obtains consumer information shall issue rules prohibiting any access to aggregate consumer information required by this subtitle.

“(b) REQUIREMENT TO PROVIDE NET METERING SERVICE.—Each electric utility shall make available upon request net metering service to an electric consumer that the electric utility serves.

“(1) IDENTICAL CHARGES.—An electric utility shall charge the owner or operator of an on-site generating facility the same rate or charge as applies with respect to the same rate or charge in effect for the same service.

“(2) METERING.—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 generating facility and the quantity of electric energy consumed by the owner or operator of an on-site generating facility during a billing period. Each electric utility that sells electric energy to the owner or operator of an on-site generating facility during the billing period, with the kilowatt-hour credit appearing on the bill for the following billing period.

“SEC. 257. APPLICATION OF SUBTITLE.

Nothing in this subtitle shall be construed to preclude a State or State regulatory authority, so long as such laws, rules, or procedures relating to the practices which are the subject of this section, so long as such laws, rules, or procedures are not inconsistent with the provisions of this section or with any rule prescribed by the Federal Trade Commission pursuant to it.

SEC. 258. ALTERNATIVE APPLICATION OF SUBTITLE.

The provisions of this subtitle applicable to each electric utility that sells electric energy to the electric consumer 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 prevent retail electric consumers from fraud, abuse, and unlawful subscription in the sale or delivery of electric energy to such consumers; and

(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 information that relates to the quantities and characteristics have been reidentified.

(2) The term ‘consumer information’ means information that relates to the quantities and characteristics have been reidentified.

SEC. 259. CONSUMER PRIVACY.

Nothing in this subtitle shall be construed to preclude a State or State regulatory authority from prescribing and enforcing additional laws, rules, or procedures regarding the practices which are the subject of this section, so long as such laws, rules, or procedures are not inconsistent with the provisions of this section or with any rule prescribed by the Federal Trade Commission pursuant to it.

SEC. 255. 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 transferred to the Federal Trade Commission to enforce compliance with this subtitle and declaring any jurisdictional limits in such Act.

SEC. 256. STATE AUTHORITY.

Nothing in this subtitle shall be construed to preclude a State or State regulatory authority from prescribing and enforcing additional laws, rules, or procedures regarding the practices which are the subject of this section, so long as such laws, rules, or procedures are not inconsistent with the provisions of this section or with any rule prescribed by the Federal Trade Commission pursuant to it.
of an electric utility to the extent that such operations relate to sales of electric energy for purposes of resale.

SEC. 258. 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 term ‘an electric utility’, ‘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 INCENTIVES.

(a) INCENTIVE PAYMENTS.—Section 1212(a) of the Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is amended by striking ‘‘and quantities determined by the Secretary’’ and inserting thereunder ‘‘Secretary shall establish’’ and inserting the following: ‘‘The Secretary shall establish such procedures necessary for efficient administration of this section and, in particular, 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 FACILITIES.—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 subdivision thereof, or an Indian tribal government or subdivision thereof,’’; and

(2) by inserting ‘‘landfill gas, incremental hydropower, ocean energy, wind, biomass, geothermal, other renewable energy the federal government consumes maximum extent practicable, the President shall ensure that, of the total amount of electric energy the federal government consumes during any fiscal year, the incremental hydropower program shall be eligible for the calendar year immediately preceding.’’.

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SEC. 262. ASSESSMENT OF RENEWABLE ENERGY RESOURCES.

(a) RESOURCES AVAILABLE.—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 renewable energy resources and determine by the end of such year the available amount and characteristics of the renewable energy resources available under paragraph (1). The report shall contain—

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

(b) CONTENTS OF REPORTS.—Not later than one 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) an inventory describing the amount and characteristics of the renewable energy resources, and

SEC. 263. FEDERAL PURCHASE REQUIREMENT.

(a) REQUIREMENT.—The President shall ensure that, 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,

(b) CONTENTS OF REPORTS.—Not later than one 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

SEC. 264. RURAL CONSTRUCTION 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 make grants to eligible rural electric cooperatives for—

(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 318(b)(3) of the Higher Education Act (20 U.S.C. 1003(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.

SEC. 265. FEDERAL RENEWABLE PORTFOLIO STANDARD.

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

SEC. 606. FEDERAL RENEWABLE PORTFOLIO STANDARD.

(a) MINIMUM RENEWABLE GENERATION REQUIREMENT.—For each calendar year beginning with 2003, each retail electric supplier shall submit to the Secretary renewable energy credits in an amount equal to the required annual percentage, specified in subsection (b), of the total amount of electricity sold by the retail electric supplier to electric consumers in the calendar year. The retail electric supplier shall make this submission before April 1 of the following calendar year.

(b) REQUIRED ANNUAL PERCENTAGE.—

(1) For calendar years 2003 and 2004, the required annual percentage shall be determined by the Secretary in an amount less than the amount in paragraph (2).

(2) For calendar year 2005 the required annual percentage shall be 2.5 percent of the retail electric supplier’s base amount.

(3) For each calendar year from 2006 through 2020, the required annual percentage of the retail electric supplier’s base amount shall be at least 6 percent of the required annual percentage for the calendar year immediately preceding.”
(c) Submission of Credits.—(1) A retail electric supplier may satisfy the requirements of subsection (a) through the submission of-Free and Fair Energy 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 may be used by the holder that is not used to satisfy the minimum renewable energy generation requirement of subsection (a) for that year may be carried forward for use in another year.

(2) Upon the approval of the plan by the Secretary, renewable energy credits will be earned within the next 3 calendar years to meet the requirements of subsection (a) for each calendar year involved; and

(3) The term ‘incremental hydropower’ means—

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

(B) the location where the electric energy is generated through the use of a renewable energy resource at an eligible facility.

(C) renewable energy credits borrowed under subsection (d) for renewable energy generated through the use of a renewable energy technology.

(D) any combination of credits under subparagraphs (A), (B), and (C).

(2) The term ‘eligible facility’ means—

(A) a facility for the generation of electric energy from a renewable energy resource at an eligible facility.

(B) a facility for the generation of electric energy from a renewable energy resource at an eligible facility.

(C) 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 to meet the requirements of subsection (a) for calendar year 2003 and the calendar year involved; and

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

(g) Enforcement.—The Secretary may bring an action in the appropriate United States district court to confirm a civil penalty on the retail electric supplier that does not comply with subsection (a). A retail electric supplier who does not submit the required number of renewable energy credits under subsection (d) shall be subject to a civil penalty of not more than 3 cents each for the renewable energy credits not submitted.

(h) 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.

(i) Environmental Savings Clause.—Incremental hydropower shall be subject to all applicable environmental laws and licensing and regulatory requirements.

(j) Statutory Interpretation.—This section does not preclude a State from requiring additional renewable energy generation in that State.

(k) Definitions.—For purposes of this section—

(1) The term ‘eligible facility’ means—

(A) a facility for the generation of electric energy from a renewable energy resource that is placed in service on or after January 1, 2002; or

(B) a repowering or cofire increment that is placed in service on or after January 1, 2002 at a facility for the generation of electric energy from a renewable energy resource that was placed in service before January 1, 2002.

(2) The term ‘incremental hydropower’ means—

(A) additional generation capacity achieved from increased efficiency or additions to existing renewable energy technology.

(B) the incremental hydropower of the Federal Land Policy and Management Act of 1976 (42 U.S.C. 1702 et seq.), is which is renewable energy credit for any year that is not used to satisfy the purposes of this section for the duration of the contract.

(c) Submission of Credits.—(1) A retail electric supplier may satisfy the requirements of subsection (a) through the submission of-Free and Fair Energy 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 may be used by the holder that is not used to satisfy the minimum renewable energy generation requirement of subsection (a) for that year may be carried forward for use in another year.

(2) Upon the approval of the plan by the Secretary, renewable energy credits will be earned within the next 3 calendar years to meet the requirements of subsection (a) for each calendar year involved; and

(3) The term ‘incremental hydropower’ means—

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

(B) the location where the electric energy is generated through the use of a renewable energy technology.

(C) renewable energy credits borrowed under subsection (d) for renewable energy generated through the use of a renewable energy technology.

(D) any combination of credits under subparagraphs (A), (B), and (C).

(2) The term ‘eligible facility’ means—

(A) a facility for the generation of electric energy from a renewable energy resource at an eligible facility.

(B) a facility for the generation of electric energy from a renewable energy resource at an eligible facility.

(C) 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 to meet the requirements of subsection (a) for calendar year 2003 and the calendar year involved; and

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

(g) Enforcement.—The Secretary may bring an action in the appropriate United States district court to confirm a civil penalty on the retail electric supplier that does not comply with subsection (a). A retail electric supplier who does not submit the required number of renewable energy credits under subsection (d) shall be subject to a civil penalty of not more than 3 cents each for the renewable energy credits not submitted.

(h) 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.

(i) Environmental Savings Clause.—Incremental hydropower shall be subject to all applicable environmental laws and licensing and regulatory requirements.

(j) Statutory Interpretation.—This section does not preclude a State from requiring additional renewable energy generation in that State.

(k) Definitions.—For purposes of this section—

(1) The term ‘eligible facility’ means—

(A) a facility for the generation of electric energy from a renewable energy resource that is placed in service on or after January 1, 2002; or

(B) a repowering or cofire increment that is placed in service on or after January 1, 2002 at a facility for the generation of electric energy from a renewable energy resource that was placed in service before January 1, 2002.

(2) The term ‘incremental hydropower’ means—

(A) additional generation capacity achieved from increased efficiency or additions to existing renewable energy technology.

(B) the incremental hydropower of the Federal Land Policy and Management Act of 1976 (42 U.S.C. 1702 et seq.), is which is renewable energy credit for any year that is not used to satisfy the purposes of this section for the duration of the contract.
Department of the Interior, and by the Secre-
tary of Agriculture with respect to federal
lands under the jurisdiction of the Depart-
mant of Agriculture.

(3) SECONDARY ISSUES.—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 in-
dustries;

(3) that are not located within roadless areas;

(4) where operation of wind or solar facili-
ties would be compatible with the scenic,
recreational, environmental, cultural, or his-
toric values of the Federal land, and would
not require the construction of new roads for
the sitting of lines or other transmission fa-
cilities; and

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

(e) COST-SHARE PAYMENTS BY DOE.—The Secre-
tary 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 Secre-
tary of Agriculture with respect to Federal
land under the jurisdiction of the Depart-
mant of Agriculture, shall determine if the
portions of the Federal land eligible for
financial assistance pursuant to this sec-
tion. 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 not pay more than 15 percent of the
estimated costs of the project on the federal
land, and the remainder of the costs shall be
paid by non-Federal sources.

(f) DRAFTS OF LAND USE PLANS.—The Secre-
tary of the Interior shall consider develop-
ment of wind and solar energy, as appro-
piate, 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 ap-
propriate, in revisions of land and resource
management plans under section 5 of the
Forest and Rangeland Renewable Resources
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 re-
vision of a land use plan by the appropriate land
management agency.

(g) REQUIREMENT TO CONGRESS.—Within 24
months after the date of enactment of this sec-
tion, the Secretary of the Interior shall
develop and report to Congress recommenda-
tions as to provisions to promote wind
energy, or whether such resources could be
land for the development of wind and solar
energy on Federal land. The report shall in-
clude—

(1) a list, developed in consultation with
the Secretaries of Energy and Defense, of
lands under the jurisdiction of the Depart-
mant of Energy and Defense that would be
suitable for development for wind or solar
energy, and recommended statutory and reg-
ulatory mechanisms for such development; and

(2) an analysis, developed in consultation
with the Secretaries of Energy and Com-
merce, of the potential for development of
wind, solar, and ocean energy on the Outer
Continental Shelf, along with recommended
statutory and regulatory mechanisms for
such development.

TITLE III—HYDROELECTRIC
RELICENSING

SEC. 301. ALTERNATIVE MANDATORY CONDI-
TIONS 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 fol-
lowing:

`(h)(1) Whenever any person applies for a
license for any project works within any res-
ervation falls deems a condi-
tion to such license to be necessary under
the Federal Power Act (16 U.S.C. 808) the
Commission shall first consult with the Sec-
retary of the department under whose super-
vision such reservation falls deems a condi-
tion such alternative condition, if the Sec-
retary of the appropriate department deter-
mines, based on substantial evidence pro-
vided by the party proposing such alter-
native condition, that the alternative condi-
tion—`

`(A) provides no less protection for the res-
ervation than provided by the condition
deemed necessary 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 condition deemed nec-
essary by the Secretary.

`(2) Notwithstanding the first proviso of
subsection (e), the Secretary of the depart-
mant under whose supervision the reserva-
tion falls shall accept the proposed alter-
native condition referred to in paragraph (1),
and the Commission shall include in the li-
cense such alternative condition, if the Sec-
retary of the appropriate department deter-
mines, based on substantial evidence pro-
vided by the party proposing such alter-
native condition, that the alternative condi-
tion—`

`(A) provides no less protection for the res-
ervation than provided by the condition
deemed necessary 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 condition deemed nec-
essary by the Secretary.''

SEC. 302. CHARGES FOR TRIBAL LANDS.

Section 10(e)(1) of the Federal Power Act
(16 U.S.C. 808(e)(1)) is amended by inserting
``as compared to the fishway initially pre-
scribed by the Secretary.

`(3) Within 1 year after the enactment of
this section, the Secretary of the Interior
and the Secretary of Commerce shall each,
by rule, establish a process to expeditiously
resolve conflicts arising under this sub-
section.''

SEC. 303. DISPOSITION OF HYDROELECTRIC
CHARGES.

Section 17 of the Federal Power Act (16 U.S.C.
819) is amended by striking “to be ex-
pended under the direction of the Secretary
of the Department of the Interior, and the
Secretary of Agriculture with respect to
Federal land under the jurisdiction of the
Department of the Interior, and the Sec-
retary of Agriculture with respect to
Federal lands under the jurisdiction of the
Department of Agriculture,” and inserting
in its stead—

``(A) fifty-percent of the funds shall be ex-

pended by the Secretary of the Interior
pursuant to a grant program to be estab-
lished by the Secretary of the Interior and
the Secretary of Agriculture for the pur-
pose of supporting fish passage construc-
tion, maintenance, or operation of fish pas-
sage initially prescribed by the Sec-
retary, and

``(B) fifty-percent of the funds shall be ex-
pended by the Secretary of Agriculture, acting
through the Chief of the Forest Service, for

the Youth Conservation Corps program.’’.

SEC. 304. ANNUAL LICENSES.

Section 15(a) of the Federal Power Act (16 U.S.C.
808(a)) is amended by adding at the end the fol-
lowing:

``(4) Prior to issuing a fourth and subse-
quent annual license under paragraph (1), the
Commission shall first consult with the Sec-
retary, the Interior Secretary of Commerce,
and the Secretary under whose supervi-

sion such reservation falls. The Commis-

sion shall not issue a new or original license
for projects involving tribal lands embraced within In-

i t a l r e s t r i c t i o n s u n t i l a n n u a l c h a r g e s re-

quired under this section have been fixed.’’

SEC. 305. ENFORCEMENT.

(a) MONITORING AND INVESTIGATIONS OF
HYDROELECTRIC PROJECTS.—The first sentence
of section 31(a) of the Federal Power Act (16 U.S.C.
823b(a)) is amended to read as follows:

``(a) Monitoring of a license shall sub-
mit to Congress the written state-
ment required in paragraph (5)’’.

(b) THE CONCERN.—The first sentence of sec-
section 31(a) of the Federal Power Act (16 U.S.C.
823b(a)) is amended to read as follows:

``(b) Any order disposing of a license shall
investigate with the United States, and the Sec-
retary under whose supervision such reserva-
tion, with the Secretary under whose
commission shall first consult with the Sec-
retary of Commerce under this section, the licensee or

applicant or any other party to the licensing
proceeding may propose an alternative con-
tion—'’.

(c) any problems, including environmental
concerns, which the Secretary of the Inter-
ior or the Secretary of Agriculture have encoun-
tered in managing wind or solar energy
projects on Federal land, or believe are like-
ly to arise in relation to the development of
wind or solar energy on Federal land;

(d) a list, developed in consultation with
the Secretaries of Energy and Defense, of
lands under the jurisdiction of the Depart-
mant of Energy and Defense that would be
suitable for development for wind or solar
energy, and recommended statutory and reg-
ulatory mechanisms for such development; and

(e) an analysis, developed in consultation
with the Secretaries of Energy and Com-
merce, of the potential for development of
wind, solar, and ocean energy on the Outer
Continental Shelf, along with recommended
statutory and regulatory mechanisms for
such development.

 evidence provided by the party proposing
such alternative, that the alternative—

``(A) will be no less effective than the
fishway initially prescribed by the Sec-

retary or the Secretary of Commerce;

``(B) will either—

``(1) cost less to implement, or
``(ii) result in improved operation of the
project works for electricity production,
}(i) cost less to implement, or
}(ii) result in improved operation of the
project works for electricity production,
imposed under section 4(e) or 4(h), each fishway prescription imposed under section 18, and each exemption granted from any requirement of this Part.

(b) PROCEDURES.—The third sentence of section 31(a) of the Federal Power Act (16 U.S.C. 823(a)) is amended to read as follows:

"After notice and opportunity for public hearing, the Commission may issue such orders as necessary to require compliance with the terms of licenses and permits issued under this Part, with conditions imposed under section 4(e) or 4(h), with fishway prescriptions imposed under section 18, and with conditions or exemptions granted from any requirement of this Part."

SEC. 306. ESTABLISHMENT OF HYDROELECTRIC RELENCING PROCEDURES.

(a) JOINT PROCEDURES OF THE COMMISSION AND RESOURCE AGENCIES.—

(1) Within 18 months after the date of enactment of this section, the Commission, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture, shall, after consultation with the interested United States and public review and comment, issue coordinated regulations governing the issuance of a license under section 15 of the Federal Power Act (16 U.S.C. 808). (2) Such regulations shall provide for—

(A) the participation of the Commission in the pre-application environmental screening processes conducted by the resource agencies pursuant to section 15(b) of the Federal Power Act (16 U.S.C. 808(b)), sufficient to allow the Commission and the resource agencies to coordinate environmental reviews and other regulatory procedures of the Commission and the resource agencies under Part I of the Federal Power Act, and under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

(B) issuance by the resource agencies of draft and final mandatory conditions under section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), and draft and final fishway prescriptions under section 18 of the Federal Power Act (16 U.S.C. 811);

(C) to the maximum extent possible, identification by the Commission staff in the draft analysis of the license application conducted under the National Environmental Policy Act, of license articles and conditions the Commission is likely to include in the license;

(D) coordination by the Commission and the resource agencies of analysis under the National Environmental Policy Act for final license articles and conditions recommended by Commission staff, and the final mandatory conditions and fishway prescriptions of the resource agencies;

(E) procedures for ensuring coordination and sharing, to the maximum extent possible, studies, data and analysis by the Commission and the resource agencies to reduce the need for duplicative studies and analysis by license applicants and other parties to the license proceeding; and

(F) procedures for ensuring resolution at an early stage of the process of the scope and type of reasonable and necessary information, studies, data, and analysis to be provided by the license applicant.

(b) ESTABLISHMENT OF ADVANCED NOTICE.—Within 18 months after the date of enactment of this section, the Commission shall, after consultation with the interested federal agencies and after public comment and review, issue additional regulations governing the issuance of a license under section 15 of the Federal Power Act (16 U.S.C. 808). Such regulations shall—

(1) set a schedule for the Commission to issue—

(A) a tendering notice indicating that an application has been filed with the Commission;

(B) advanced notice to resource agencies of the issuance of the Ready for Environmental Analysis Notice requesting submission of recommendations, conditions, prescriptions, and comments;

(C) a decision after completion of environmental assessments or environmental impact statements prepared pursuant to the National Environmental Policy Act; and

(D) responses to petitions, motions, complaints and requests for rehearing;

(2) set deadlines for an applicant to conduct all necessary resource studies in support of its license application;

(3) ensure a coordinated schedule for all major actions by the applicant, the Commission, affected Federal and State agencies, Indian Tribes and other parties, through final decision on the application; and

(4) provide for the adjustment of schedules if unavoidable delays occur.

SEC. 307. RELICENSING STUDY.

(a) IN GENERAL.—The Federal Energy Regulatory Commission shall, jointly with the Secretary of Commerce, the Secretary of the Interior, and the Secretary of Agriculture, conduct a study of all new licenses issued for existing projects under section 15 of the Federal Power Act (16 U.S.C. 808) since January 1, 1994.

(b) SCOPE.—The study shall analyze—

(1) the length of time the Commission has taken to issue each new license for an existing project;

(2) the additional cost to the licensee attributable to new license conditions;

(3) the changes in capacity attributable to new license conditions;

(4) the environmental benefits achieved by new license conditions;

(5) significant mitigated environmental damage of the project and costs to mitigate such damage; and

(6) litigation arising from the issuance or failure to issue new licenses for existing projects under section 15 of the Federal Power Act or the imposition or failure to impose new license conditions.

(c) DEFINITION.—As used in this section, the term "new license condition" means any condition imposed under—

(1) section 4(e) of the Federal Power Act (16 U.S.C. 797(e));

(2) section 10(a) of the Federal Power Act (16 U.S.C. 803(a));

(3) section 10(e) of the Federal Power Act (16 U.S.C. 803(g));

(4) section 10(j) of the Federal Power Act (16 U.S.C. 803(j));

(5) section 18 of the Federal Power Act (16 U.S.C. 811), or

(6) section 401(d) of the Clean Water Act (33 U.S.C. 1341(d)).

(d) REPORT.—The Commission shall give interested persons and licensees an opportunity to submit information and views in writing.

(e) ENSURE.—The Commission shall report its findings 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 24 months after the date of enactment of this section.

SEC. 308. DATA COLLECTION PROCEDURES.

Within 24 months after the date of enactment of this section, the Federal Energy Regulatory Commission, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture shall jointly develop categories and accounting systems to provide accurate information concerning the time and cost to parties in the hydroelectric licensing process under part I of the Federal Power Act (16 U.S.C. 791 et seq.). Such data shall be published regularly, but no less frequently than every three years.

TITLED IV—NEW ENERGY

SEC. 401. COMPREHENSIVE INDIAN ENERGY PROGRAM.

Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3101 et seq.) is amended by adding after section 2006 the following:

"SEC. 2007. 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 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 whose title on the date of enactment of this section was held—

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

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

"(iii) by a dependent Indian community;

"(B) land conveyed to an Alaska Native Corporation under the Alaska Native Claims Settlement Act;

"(C) land owned by the United States for the benefit of an Indian tribe; and

"(D) Indian land.

"(b) PROCEDURES.—(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 energy conservation programs;

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

"(C) developing, constructing, and interconnecting electric power transmission facilities with transmission facilities owned and operated by a Federal Indian 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 are 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 distribution facility used for the sale of electric energy to an electric consumer;

"(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 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 distribution 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) DIAMONDBACK PROGRAM.—

(1) AUTHORITY.—The Secretary may guarantee not more than 90 percent of the unpaid principal and interest due on any loan made to an Indian tribe, for energy development, including the planning, development, construction, and maintenance of electrical generation plants, and for transmission and delivery for electricity produced on Indian land. A loan guaranteed under this subsection shall not exceed $2,000,000,000.

(2) AVAILABLE OF APPROPRIATIONS.—Amounts appropriated to cover the cost of loan guarantees shall be available without fiscal year limitation 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 amount of loan guarantees made 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 majorly owned and controlled by a tribal government.

(2) In implementing this subsection, an agency or department of the United States Government may give preference in such purchase to an entity whose interests include any Regional Corporation as defined in title XIX of the Energy Policy and Conservation Act of 1977.

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

(1) limit the discretion vested in an Administrator of a Federal power marketing agency by the 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 President, by and with the advice and consent of the Senate. 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 electrical energy;

(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.

(b) The Director shall carry out the duties assigned to him under section 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 5315 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 Indian Self-Determination and Educational Assistance Act (25 U.S.C. 450c(g)).

(2) INTERESTED PARTY.—The term "interested party" means a person whose interests could be adversely 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 received by 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 by or 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 established 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 a reservation, or tribal trust lands located contiguous thereto.

(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 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 reviews 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) certification 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.

(f) Federal confirmation.—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, or enters into an agreement to develop energy resources on Indian land, 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 regulations and assume the responsibility for approval of leases or right-of-way associated with the facilities addressed in this section.

(B) 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 reissuance 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 utility 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, as 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–396l); Indian Mineral Development Act of 1982 (25 U.S.C. 2101–2108); Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201–1232); 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 of the Government, and the utilization and disposition of Indian tribal properties and resources under the authority of the Indian Mineral Development Act of 1982 (25 U.S.C. 2101 et seq.).

(b) REPORT.—Not later than one year after the date of the enactment of this Act, the Secretary shall transmit to the Committee on Commerce, Science, and Transportation and to 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 conducted under this section;

(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 the House of Representatives and to 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 ADMINISTRATION STUDY.

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 of the following:

"SEC. 2008. FEDERAL POWER MARKETING ADMINISTRATION STUDY.

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

(1) the Administrator of the Bonneville Power Administration;

(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 Committee on Energy and Natural Resources and Indian Affairs of the Senate a report on Indian tribes and how the benefit of power is utilized by the tribes.

(2) The Secretary shall transmit with the report a demonstration project that would use the high-voltage transmission system for delivery of electric power, and opportunities to remove such barriers and improve the efficiency of the transmission system.

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

(a) STUDY.—The Secretary of Energy, in coordination with 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 to supply firm 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, and the use of wind energy generated by Indian tribes by the Western Area Power Administration.

(2) study the potential energy costs savings to the customers of the Western Area Power Administration through the blend of wind and hydropower.

(3) evaluate the potential energy production and how the benefit 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 developing the report and recommendations provided in this section.
(e) AUTHORIZATION OF APPROPRIATIONS.—There shall 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 non-reimbursable.

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. ENHANCED DEPARTMENT OF ENERGY INDEMNIFICATION AUTHORITY.
Section 170 d.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.”.

SEC. 503. DEPARTMENT OF ENERGY LIABILITY LIMIT.
(a) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170 d. 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 claims above the amount of the financial protection required, in the amount of $100,000,000 (subject to adjustment for inflation under subsection (c), and (e), the Secretary may not deliver or sell uranium (in any form) for consumption by end users in the United States.
(c) INVENTORY SALES.—Section 3112(d) of the USEC Privatization Act (42 U.S.C. 2297h–1(d)) is further amended by striking paragraph (3) and inserting the following:
“(3) All agreements of indemnification entered into under subsection (a) or (b), in the aggregate, shall provide for indemnification of the contractor under this subsection.”

SEC. 504. INCIDENTS OUTSIDE THE UNITED STATES.
Section 170 t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended—
(1) by renumbering paragraph (2) as paragraph (3); and
(2) by adding after paragraph (1) the following:
“(c) 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
“(1) such date of enactment, in the case of the first adjustment under this paragraph; or
“(2) the previous adjustment under this paragraph.”.

SEC. 507. CIVIL PENALTIES.
(a) REPEAL OF AUTOMATIC REMISSION.—Section 3243 a.b.(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 3243 a of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:
“(d) Limitation on indemnification agreements—
“(1) Notwithstanding subsection (a), a civil penalty for a violation under subsection (a) shall not exceed the amount of the fee paid under the contract under which such violation occurs for any not-for-profit contractor, subcontractor, or supplier.
“(2) For purposes of this section, the term ‘not-for-profit contractor’ includes any person that is part of the earned income 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 Energy Act of 1954 occurring under a contract entered into before the date of enactment of this section.

SEC. 508. EFFECTIVE DATE.
The amendments made by sections 503(a) and 504 shall 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 (a), (b), (c), and (e), the Secretary may, from time to time, sell or transf er uranium (including natural uranium concentrates, natural uranium hexafluoride, or enriched uranium) from the Department of Energy’s stockpile.
“(2) Except as provided in subsections (a), (b), (c), and (e), the Secretary may sell uranium in any form for consumption by end users in any year in excess of the following amounts:

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Maximum Deliveries to End Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003 through 2009</td>
<td>(millions of lbs. U²³⁵ equiv.)</td>
</tr>
<tr>
<td>2010–</td>
<td>3</td>
</tr>
<tr>
<td>2011–</td>
<td>5</td>
</tr>
<tr>
<td>2012–</td>
<td>7</td>
</tr>
<tr>
<td>2013 and each year thereafter–</td>
<td></td>
</tr>
</tbody>
</table>
“(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 national security views of the Director of National Intelligence 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 impact on the critical domestic uranium mining, conversion, or enrichment industry, taking into account the sales of uranium under the Russian HEU Agreement and the Sales Agreement for the USEC Privatization Act of 1998.
“(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 TRANSFERS OR SALES.—Notwithstanding subsection (d), 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 tritium program, to the extent provided by law;
“(2) to research and test reactors under the University Reactor Fuel Assistance and Support Program or the Reduced Enrichment for Research and Test Reactors Program;
“(3) to USEC, Inc. to replace contaminated uranium received from Russia under the Russian HEU Agreement; and 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 LICENSEE.—Section 1001(b)(2)(C) of the Energy Policy Act of 1992 (42 U.S.C. 2296a) is amended—
(1) by striking “$100,000,000” and inserting “$365,000,000”;
(2) by adding at the end the following:
“Such payments shall not exceed the following amounts:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$80,000,000</td>
</tr>
<tr>
<td>2004</td>
<td>$65,000,000</td>
</tr>
<tr>
<td>2005</td>
<td>$55,000,000</td>
</tr>
<tr>
<td>2006</td>
<td>$35,000,000</td>
</tr>
<tr>
<td>2007</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>

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.—Section 1802(a) of the Atomic Energy Act of 1954 (42 U.S.C. 2262a–1(a)) is amended—
(1) by striking “$488,333,333” and inserting “$518,253,333”; 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 reauthorize 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 determined, in a record of decision, that
the program can be carried out at existing operating facilities.

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.";

(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 for production to be necessary to carry out this part, to remain available until expended.

"(2) by striking part F (42 U.S.C. 6286(e); 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 section 1522(c) of the National Environmental Policy Act of 1969 (42 U.S.C. 1332(c));

(2) improve consultation and coordination with the States;

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

(4) improve inspection and enforcement activities related to oil and gas leases.

(b) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of carrying out paragraphs (1) through (4) of subsection (a), there are authorized to be appropriated to the Secretary of the Interior $50,000,000 for each of fiscal years 2003 through 2005 to carry out the activities provided for in this section.

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: "acreage as acreage under any lease any portion of which has been committed to a Federally approved unit or cooperative plan or comminution agreement, or for 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 three years after the date of enactment of this Act, remediation, reclamation, and closure of orphaned oil and gas wells to prevent water that is otherwise preserved by the land management agencies within the Department of the Interior and the U.S. Forest Service that are—

(A) abandoned after 1981;

(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) Authorization of Appropriations.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this program.

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 ten-year period to ensure a practical and economical remedy for environmental problems associated with 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 orphaned 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 this Act, 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 allochthonous salt sheets, when in the Secretary's judgment such suspension is necessary to prevent water that is otherwise preserved 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 hydrologic 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) the most effective policy tools that can mitigate adverse impacts from coalbed methane development.

(c) Technical Assurances.—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. The Secretary 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.

(d) 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 fossil fuel property taxes during low price periods; and

(2) assess the effect of existing federal and state fiscal policies on investment under different geological and developmental circumstances, including limited access 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) in Federal and state policies with tax and royalty regimes in other countries with particular emphasis on similar geological, developmental and infrastructure opportunities; 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 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 under (c) shall be transmitted to the President, the Congress, 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. 621 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 from the United States to be received 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 for the Strategic Petroleum Reserve and the reliance on imported petroleum.

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 significant domestic gas reserves in Alaska needed to meet the anticipated demand for natural gas;

(2) The Commission issued a 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 expedite the approval, construction, and initial operation of one or more transportation systems for the delivery of Alaska natural gas to the contiguous United States;

(2) to ensure access to such transportation systems on an equal and nondiscriminatory basis and to promote competition in the exploration, development, and production of Alaska natural gas; and

(3) to provide federal financial assistance to any transportation system for the transport of Alaskan natural gas to the contiguous United States, for which an application for a certificate of public convenience and necessity is filed with the Commission not later than 6 months after the date of enactment of 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. 717(c)), consider and act upon an application for a certificate of public convenience and necessity filed with the Commission not later than 6 months after the date of enactment of this subtitle.

(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 other than the Alaska Natural Gas Transportation System.

(c) Expeditious 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 finds that additional time is needed.

(d) Environmental Reviews Under ANOTA.—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. 706. FEDERAL COORDINATOR.

(a) Establishment.—There is established as an independent establishment in the executive branch, the Office of the Federal Coordinator for Alaskan Natural Gas Transportation Projects.

(b) The Federal Coordinator.—The Office shall be headed by a Federal Coordinator for Alaskan 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. 5332(3)(B)).

(c) Duties.—The Federal Coordinator shall be responsible for—

(1) coordinating the expeditious discharge of all Federal 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.

SEC. 707. JUDICIAL REVIEW.
(a) AUTHORITY.—The Secretary of Energy may issue regulations to carry out the provisions of this section.
(b) CONDITIONS.—The Secretary of Energy may not guarantee a loan guaranteed under this section unless the Secretary finds that the loan is consistent with the national interest.
(c) LIMITATION ON AMOUNT.—Commitments to guarantee loans may be made by the Secretary of Energy only to the extent that the total amount of all loans guaranteed by the Secretary under this subtitle, at any one time, does 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 carry out the provisions of this section.

SEC. 709. STUDY OF ALTERNATIVE MEANS OF CONSTRUCTION.
(a) REQUIREMENT OF STUDY.—If no application for the issuance of a certificate of public convenience and necessity authorizing the construction of an Alaska natural gas transportation project has been filed with the Commission within 6 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 following:

SEC. 710. SAVINGS CLAUSE.
(a) 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. 719c) for the purpose of constructing an Alaska natural gas transportation project.
(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.

SEC. 708. 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 guarantee a loan under this section unless the Secretary finds that the loan is consistent with the national interest.

SEC. 711. 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 amend the 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. 719c) as necessary to cover the cost of loan guarantees, including the maximum size, collateral requirements and other features determined by the Secretary.

SEC. 712. DEFINITIONS.
For purposes of this subtitle:
(1) the term ‘‘Alaska natural gas’’ means any other natural gas pipeline system that carries Alaska natural gas from the North Slope of Alaska to the border between Alaska and Canada (including related facilities subject to the jurisdiction of the Commission) that is authorized under section 7 of the Natural Gas Act (15 U.S.C. 719b); or
(2) the term ‘‘Alaska natural gas transportation project’’ means any other natural gas pipeline system that carries Alaska natural gas from the North Slope of Alaska to the border between Alaska and Canada (including related facilities subject to the jurisdiction of the Commission) that is authorized under section 7 of the Natural Gas Act (15 U.S.C. 719b).

SEC. 713. 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 an Alaska pipeline project to make every effort to use steel that is manufactured or produced in North America and to negotiate a project labor agreement to expedite construction of the pipeline.

Subtitle B—Operating Pipelines

SEC. 721. APPLICATION OF HISTORIC PRESERVATION ACT TO OPERATING PIPELINES.
Section 7 of the Natural Gas Act (15 U.S.C. 717(c)) is amended by adding at the end the following:

SEC. 719. STUDY OF ALTERNATIVE MEANS OF CONSTRUCTION.
(a) AUTHORITY.—The Secretary of Energy shall conduct a study of alternative approaches to the construction and operation of the project. (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.

SEC. 708. 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 guarantee a loan under this section unless the Secretary finds that the loan is consistent with the national interest.

SEC. 711. 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 amend the 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. 719c) as necessary to cover the cost of loan guarantees, including the maximum size, collateral requirements and other features determined by the Secretary.

SEC. 712. DEFINITIONS.
For purposes of this subtitle:
(1) the term ‘‘Alaska natural gas’’ has the meaning given such term by section 4(b) of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719b); or
(2) the term ‘‘Alaska natural gas transportation project’’ means any other natural gas pipeline system that carries Alaska natural gas from the North Slope of Alaska to the border between Alaska and Canada (including related facilities subject to the jurisdiction of the Commission) that is authorized under section 7 of the Natural Gas Act (15 U.S.C. 719b).

SEC. 713. 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 an Alaska pipeline project to make every effort to use steel that is manufactured or produced in North America and to negotiate a project labor agreement to expedite construction of the pipeline.

Subtitle B—Operating Pipelines

SEC. 721. APPLICATION OF HISTORIC PRESERVATION ACT TO OPERATING PIPELINES.
Section 7 of the Natural Gas Act (15 U.S.C. 717(c)) is amended by adding at the end the following:
"(1) IN GENERAL.—The Secretary of Transportation, after consultation with the Administrator of the Environmental Protection Agency, shall prescribe average fuel economy standards for passenger automobiles and light trucks manufactured by a manufacturer in each model year beginning with model year 2005 in order to achieve a combined average fuel economy standard for passenger automobiles and light trucks manufactured by a manufacturer in each model year of at least 33.5 miles per gallon.

"(2) ANNUAL PROGRESS TOWARD STANDARD REQUIRED.—In prescribing average fuel economy standards under paragraph (1), the Secretary shall prescribe annual fuel economy standards for passenger automobiles and light trucks manufactured by a manufacturer that are not less than the standards prescribed for the model year 2005.

"(3) DEADLINE FOR REGULATIONS.—The Secretary shall promulgate the regulations required by paragraphs (1) and (2) in final form no later than 1 year after the date of the enactment of this Act.

"(4) DEFAULT STANDARDS.—If the Secretary fails to meet the requirements of paragraph (3), the average fuel economy standard for passenger automobiles and light trucks manufactured by a manufacturer in each model year beginning with model year 2005 is the average fuel economy standard set forth in the following tables:

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Fuel Economy Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>28 miles per gallon</td>
</tr>
<tr>
<td>2006</td>
<td>29 miles per gallon</td>
</tr>
<tr>
<td>2007</td>
<td>30 miles per gallon</td>
</tr>
<tr>
<td>2008</td>
<td>31 miles per gallon</td>
</tr>
<tr>
<td>2009</td>
<td>32.5 miles per gallon</td>
</tr>
<tr>
<td>2010</td>
<td>33 miles per gallon</td>
</tr>
<tr>
<td>2011</td>
<td>35 miles per gallon</td>
</tr>
<tr>
<td>2012</td>
<td>36.5 miles per gallon</td>
</tr>
<tr>
<td>2013 and thereafter</td>
<td>38 miles per gallon</td>
</tr>
</tbody>
</table>

"(5) COMBINED STANDARD FOR MODEL YEARS AFTER MODEL YEAR 2005.—Unless the default standards under paragraph (4) are in effect, for model years after model year 2010, the Secretary may by rulemaking establish—

"(A) separate average fuel economy standards for passenger automobiles and light trucks manufactured by a manufacturer; or

"(B) a combined average fuel economy standard for passenger automobiles and light trucks manufactured by a manufacturer that are not less than the standards prescribed for the model year 2005 in each of the previous model years.

"(6) By striking the "standard" in subsection (c)(1) and inserting "a standard";
(b) Hybrid Vehicle Defined. — In this section, the term “hybrid vehicle” means a motor vehicle—
(1) which—
(A) uses 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; or
(B) recovers kinetic energy through regeneration of the system and provides at least 13 percent maximum power from the electrical storage device;
(2) which, in the case of a passenger automobile or light truck—
(A) for 2002 and later model vehicles, has received a certificate of conformity under section 206 of the Clean Air Act (42 U.S.C. 7525) and is alternatively qualified by the California low emission vehicle standard under section 248(e)(2); and
(B) for 2004 and later model vehicles, has received a certificate that such vehicle meets the Tier II emission level established in respect of such vehicle by the Administrator of the Environmental Protection Agency under section 202(1) of the Clean Air Act (42 U.S.C. 7521(1));
(3) which is made by a manufacturer.
(c) Alternative Fuel Defined. — In this section, “alternative fuel” has the meaning such term has under section 101(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2)).

SEC. 806. CREDIT TRADING PROGRAM.
(a) In General.—Section 32903 of title 49, United States Code, is amended by adding at the end the following:

"(g) VEHICLE CREDIT TRADING SYSTEM.—
"(1) which—
(A) makes only credits accrued after the date of enactment of the Energy Policy Act of 2002; or
(B) for 2004 and later model years, has received a certificate of conformity under section 206 of the Clean Air Act (42 U.S.C. 7525) and is alternatively qualified by the California low emission vehicle standard under section 248(e)(2) as to fuel economy standards established by section 32902; and
"(2) by striking "and" after "title" the first time it appears in subsection (c); and
"(3) by inserting "or light trucks'' each place it appears in subsection (c); and
"(4) by inserting "or light trucks'' each place it appears in subsection (c); and
"(5) by inserting "and is unable to purchase" after "title'' the first time it appears in subsection (c); and
"(6) by striking "applied to—'' and inserting "applied—''.

"(b) Use of Credit Value to Calculate Civil Penalty.—Section 32912(b) of title 49, United States Code, is amended—
(1) by striking "applied to—'' and inserting "applied—''; and
(2) by inserting "for model years before model year 2006, to'' in paragraph (1) before "any'';
(3) by striking "and" after the semicolon in paragraph (1);
(4) by striking "earned," in paragraph (2) and inserting "earned;'' and
(5) by adding at the end the following:
"(3) $5 multiplied by each 0.1 of a mile a passenger automobile or light truck does not meet the applicable fuel economy standard established by section 32902; and
"(4) Any other pollutants or harmful byproducts related to the automobile, which may include those generated during manufacture or the operation of the automobile or during use of the automobile, or those generated after the automobile ceases to be operated.

SEC. 807. LIGHT TRUCK CHALLENGE.
(a) In General.—The Secretary of Transportation, with the technical assistance from the Administrator of the Environmental Protection Agency, may establish a program, to be known as the ‘fuelstar’ program, under which stars shall be displayed on or attached to the label required by paragraph (1) that will, consistent with the findings of the marketing analysis required under subsection (a), provide consumer incentives to purchase light trucks that exceed the applicable fuel economy standard.

SEC. 808. GREEN LABELS FOR FUEL ECONOMY.
(a) In General.—The Administrator shall establish a program, to be known as the ‘fuelstar’ program, under which stars shall be displayed on or attached to the label required by paragraph (1) that will, consistent with the findings of the marketing analysis required under subsection (a), provide consumer incentives to purchase light trucks that exceed the applicable fuel economy standard.
(b) Project Requirements.—Under the contract, the Secretary shall require that the star shall be—
(1) select a current model year production vehicle;
(2) modify that vehicle so that it—
(A) meets all existing vehicle performance characteristics of the sport utility vehicle or light truck selected for the project;
(B) improves that vehicle’s fuel economy rating by 50 percent or more (as measured by gasoline consumption); and
(3) meet the requirements of paragraph (2) in such an incremental modification in the manufacturer’s production process would not increase the vehicle’s incremental production costs by more than 10 percent.
(c) ELIGIBLE ENTITIES.—The competition conducted by the Secretary shall be open to any entity, or consortium of nongovernmental entities, educational institutions, and not-for-profit organizations, that—
(1) has the technical capability and resources needed to complete the project successfully; and
(2) has sufficient financial resources in addition to the contract amount, if necessary, to complete the contract successfully.
(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Transportation $10,000,000 for each of fiscal years 2003 and 2004 to carry out this section.
SEC. 808. SECRETARY OF TRANSPORTATION TO CERTIFY BENEFITS.
Beginning with model year 2005, the Secretary of Transportation shall certify annually to the Congress—
(1) the annual reduction in United States consumption of petroleum used for vehicle fuel, and
(2) the annual reduction in greenhouse gas emissions attributable to the implementation of the average fuel economy standards imposed under section 32902 of title 49, United States Code, as a result of the action taken by the Secretary under this section.
SEC. 809. DEPARTMENT OF TRANSPORTATION ENGINEERING AWARD PROGRAM.
(a) ENGINEERING TEAM AWARDS.—The Secretary of Transportation shall establish an engineering award program to recognize the engineering team of any manufacturer of passenger automobiles or light trucks (as such terms are defined in section 32901 of title 49, United States Code) whose work directly results in production models of—
(1) the first large sport utility vehicle, van, or light truck to achieve a fuel economy rating of 30 miles per gallon under section 32902 of title 49;
(2) the first mid-sized sport utility vehicle, van, or light truck to achieve a fuel economy rating of 35 miles per gallon under section 32902 of such title;
(3) the first small sport utility vehicle, van, or light truck to achieve a fuel economy rating of 40 miles per gallon under section 32902 of such title.
(b) MANUFACTURER’S AWARD.—The Secretary of Transportation shall establish an award program to recognize the first manufacturer of domestically-manufactured (within the meaning of section 32903 of title 49, United States Code) passenger automobiles and light trucks to achieve a combined fuel economy rating of 37 miles per gallon under section 32902 of such title.
(c) REQUIREMENTS FOR PARTICIPATION IN ENGINEERING TEAM AWARDS PROGRAM.—In establishing the engineering team awards program under subsection (a), the Secretary shall establish eligibility requirements that include—
(1) a requirement that the vehicle, van, or truck be domestically-manufactured or manufactured under a cooperative research and development agreement with any manufacturer of passenger automobiles or light trucks (as such terms are defined in section 32901 of title 49, United States Code) to implement, utilize, and incorporate in production government-developed or jointly-developed fuel economy technology that will result in improvements in the average fuel economy of any class of vehicles produced by that manufacturer of at least 5 percent greater than the average fuel economy of that class of vehicles for model year 2000.
(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Transportation and the Administrator of the Environmental Protection Agency such sums as may be necessary to carry out this section.
Subtitle B—Alternative and Renewable Fuels
SEC. 811. INCREASED USE OF ALTERNATIVE FUELS BY FEDERAL FLEETS.
(a) REQUIREMENT TO USE ALTERNATIVE FUELS.—Section 498AA (a)(3)(E) of the Energy Policy and Conservation Act (22 U.S.C. 6374 (a)(3)(E)) is amended to read as follows:—
"(E) Dual fueled vehicles acquired pursuant to this subsection shall be operated on alternative fuels. If the Secretary determines that all dual fueled vehicles acquired pursuant to this section cannot operate on alternative fuels at all times, he may waive the requirement in part, but only to the extent that—
(i) not later than September 30, 2003, not less than 50 percent of the total annual volume of fuel used in such dual fueled vehicles shall be from alternative fuels; and
(ii) not later than September 30, 2005, not less than 75 percent of the annual volume of fuel used in such dual fueled vehicles shall be from alternative fuels.”.
(b) DEFINITION OF “DEDICATED VEHICLE”.—Section 498AA (a)(3)(E) of the Energy Policy and Conservation Act (22 U.S.C. 6374 (a)(3)(E)) is amended by inserting after “solely on alternative fuel” the following:—
"; including a three-wheeled enclosed electric vehicle having a vehicle identification number”.
SEC. 812. EXCEPTION TO HOW PASSENGER REQUIREMENTS FOR ALTERNATIVE FUELS ARE DETERMINED.
Section 102(a)(1) of title 23, United States Code, is amended by inserting after “required” the following:—
"unless, in the discretion of the Secretary of Transportation, it is demonstrated that 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, and in the States, to the extent feasible to protect the confidentiality of individual responses. In conducting the survey, the Administrator shall collect information 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 consumed;
(5) the quantity of renewable fuels imported; and
(6) market price data.
SEC. 814. GREEN SCHOOL BUS PILOT PROGRAM.
(a) ESTABLISHMENT.—The Secretary of Education 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 eligibility requirements for awarding grants under this section.
(c) QUALIFICATIONS.—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 support 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 1997 and diesel-powered buses manufactured before model year 1991.
(2) NO ECONOMIC BENEFIT.—Other than the requirements of this Act, the grant recipients of a grant under this section may not receive any economic benefit in connection with the receipt of the grant.
(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.
(2) Funds provided under the grant may only be used—
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(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 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, hydrogen, propane, or methanol or ethanol at no less than 85 percent by volume; and
(2) the term ‘ultra-low sulfur diesel school bus’ means a diesel fuel which contains sulfur at not more than 15 parts per million.

SEC. 815. FUEL CELL BUS DEVELOPMENT AND DEMONSTRATION PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish a program to enter into cooperative agreements with private sector fuel cell bus developers for the development of fuel cell-powered school buses, to provide demonstration activities not described in paragraph (1). (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 activities not described in paragraph (1). (c) ELIGIBILITY.—No more than $25,000,000 of the amounts authorized under section 815 may be used for carrying 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. BIODEisel FUEL USE CRedit.

Section 312(c) of the Energy Policy Act of 1992 (42 U.S.C. 13220(c)) is amended—

(1) by striking ‘‘NOT’’ in the subsection heading; and
(2) by striking ‘‘not’’.}

SEC. 818. NEIGHBORHOOD ELECTRIC VEHICLES.


(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 subsection (d) and inserting ‘‘;’’ and inserting ‘‘;’’ 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 571.2(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. 821. FUEL EFFICIENCY OF THE FEDERAL FLEET OF AUTOMOBILES.

Section 32907 of title 49, United States Code, is amended to read as follows:

‘‘S 32907. 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 automobile. 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 United States Department of Transportation shall prescribe for the implementation of this section.

(d) DEFINITIONS.—In this section—

(1) ‘‘automobile, motor vehicle or commercial motor vehicle’’ 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 automobiles’’, 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. ASSISTANCE FOR STATE PROGRAMS TO RETIRE FUEL-INEFFICIENT MOTOR VEHICLES.

(a) ESTABLISHMENT.—The Secretary shall establish a program, to be known as the ‘‘National Motor Vehicle Efficiency Improvement Program.’’ Under this program, the Secretary shall provide grants to States to operate programs to offer owners of passenger automobiles and light-duty trucks manufactured in model years more than 15 years prior to the fiscal year in which appropriations are made under subsection (d) financial incentives to voluntarily—

(1) scrap such automobiles and to replace them with automobiles with higher fuel efficiency; or
(2) repair such vehicles to improve their fuel economy.

(b) STATE PLAN.—Not later than 180 days after the date of enactment of an appropriation act containing funds authorized under subsection (d), to be eligible for funds under the program, the Governor of a State shall submit to the Secretary a plan to carry out a program under this subtitle in that State.

(c) ELIGIBILITY CRITERIA.—The Secretary shall approve a State plan and provide the funds under subsection (d), if the State plan—

(1) for voluntary vehicle scrappage programs—
SEC. 363. EACH STATE ENERGY CONSERVATION GOALS.—Section 364 of the Energy Policy and Conservation Act (42 U.S.C. 6234) is amended to read as follows:

"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 and Conservation Act of 1975 shall contain at least once in an improvement of 25 percent or more in the efficiency 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 366(f) of the Energy Policy and Conservation Act (42 U.S.C. 6306) is amended by striking "$250,000" and inserting: "$1,000,000,000".

SEC. 390. ENERGY EFFICIENT SCHOOLS.—Except as otherwise established in the Department of Energy the High Performance Schools Program (in this section referred to as the "Program") —

(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.

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;

(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 educational agency, has determined is feasible and appropriate to achieve the purposes for which the grant is made.

GRANTS FOR ADMINISTRATION.—Grants under subsection (b)(2) shall be used to—

(1) provide technical assistance to 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; and

(3) promote 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.

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 with school administrations, students, and communities, and coordinating public benefit programs.

(a) LIHEAP.—(1) Section 2602(b) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 6221(b)) is amended by striking "$500,000,000,000 for each fiscal year 2004; $750,000,000 for each fiscal year 2005; $1,000,000,000 for each fiscal year 2006; and $1,250,000,000 for each fiscal year 2007.

(2) Section 2602(e) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 6221(e)) is amended by striking "$250,000,000" and inserting: "$1,000,000,000".

(3) Section 2603(a) of the Low-Income Energy Assistance Act of 1981 (42 U.S.C. 6223(a)) is amended by striking "$500,000" and inserting: "$3,000,000,000" and "not more than $2,000,000,000".

(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: "$1,000,000,000 for each of fiscal years 2003 and 2004; $1,500,000,000 for each of fiscal years 2005 and 2006; and such sums as may be necessary for each fiscal year thereafter."

SEC. 901. INCREASED FUNDING FOR LIHEAP, WEATHERIZATION ASSISTANCE, AND STATE ENERGY GRANTS.

SEC. 902. ENERGY EFFICIENCY AND ASSET MANAGEMENT FOR INFRASTRUCTURE USE.

SEC. 100. PRELIMINARY PROVISIONS.

(4) "Passenger Automobile."—The term "passenger automobile" has the meaning given such term by section 32901(16) of title 49, United States Code.

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

(6) "State."—The term "State" means any of the several States and the District of Columbia.

SEC. 383. IDLING REDUCTION SYSTEMS IN HEAVY DUTY VEHICLES.

(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) DETERMINATION.—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 vehicle 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. 364. 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. 6221(b)) is amended by striking "$500,000,000 for each of fiscal years 2004 through 2007; $750,000,000 for each of fiscal years 2008 and 2009; $1,000,000,000 for each of fiscal years 2010 through 2012; $1,250,000,000 for each fiscal year 2013; and $1,500,000,000 for each fiscal year 2014 through 2016."

(2) Section 2602(e) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 6221(e)) is amended by striking "$250,000,000" and inserting: "$1,000,000,000".

(3) Section 2603(a) of the Low-Income Energy Assistance Act of 1981 (42 U.S.C. 6223(a)) is amended by striking "$500,000" and inserting: "$3,000,000,000" and "not more than $2,000,000,000".

(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. 384. STATE ENERGY PROGRAMS.

(a) STATE ENERGY CONSERVATION PLANS.—Section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6226) is amended by adding at the end the following:

(2) require at least once every three 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 all other States within the region, and identify opportunities and actions that may be carried out in pursuit of common energy conservation goals."
(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 local or State sources in the implementation of their plans.

(g) ALLOCATIONS.—Except as provided in subsection (b), 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); and
(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.

(1) AUTHORIZATION OF APPROPRIATIONS.—For grants under subsection (b) there are authorized to be appropriated—

(1) $200,000,000 for fiscal year 2003;
(2) $216,000,000 for fiscal year 2004;
(3) $220,000,000 for fiscal year 2005;
(4) $230,000,000 for fiscal year 2006; and
(5) 15 percent shall be used to make grants under subsection (b) in each fiscal year thereafter through fiscal year 2012.

(2) 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 rating, 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 1410k(1) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8001(14)),
(B) a “secondary school” as that term is defined in section 1410k(25) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8001(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 1410k(29) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8001(29)).

(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. 8258b) and, if such agency exists, a State agency designated by the Governor of the State.

SEC. 904. LOW INCOME COMMUNITY ENERGY EFFICIENCY PROGRAM.

(a) GRANTS.—The Secretary of Energy is authorized to make grants to private, nonprofit community development organizations and Indian tribe economic development entities to improve energy efficiency, identify and develop alternative renewable and distributed energy supplies, and implement energy performance improvements in low income rural and urban communities.

(b) PURPOSE OF GRANTS.—The Secretary shall make grants to establish a community development program 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) and 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 to develop 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 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—

(1) 70 percent shall be used to make grants under subsection (b) in each fiscal year thereafter through fiscal year 2005.

Subtitle B—Federal Energy Efficiency

SEC. 911. ENERGY MANAGEMENT REQUIREMENTS.

(a) ENERGY REDUCTION GOALS.—Section 549(a)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8259a(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 auxiliary laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency for Federal 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:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Percentage Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2003</td>
<td>2</td>
</tr>
<tr>
<td>2004-2005</td>
<td>4</td>
</tr>
<tr>
<td>2006-2007</td>
<td>6</td>
</tr>
<tr>
<td>2008-2009</td>
<td>8</td>
</tr>
<tr>
<td>2010-2011</td>
<td>10</td>
</tr>
</tbody>
</table>

(b) REVIEW AND REVISION OF ENERGY PERFORMANCE REQUIREMENT.—Section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8259a(a)) is further amended by adding at the end the following:

“(8) Not later than December 31, 2010, the Secretary shall review the results of the implementation of the energy performance requirements 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 determines 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 section and the Energy Policy Act of 1992, Executive 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 extent to which activities carried out in the Federal building or collection of Federal buildings;

(ii) the fact that the Federal building or collection of Federal buildings is used in the performance of a national security function.

(c) REPORTS.—Section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8259b(b)) is amended—

(1) by striking “impracticability standards” and inserting “standards for exclusion”;
(2) by striking “a finding of impracticability and inserting “the exclusion”;
(3) by striking “The President and” before “Congress”;

(d) CONFORMING AMENDMENT.—Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8265b(d)) is amended in the section heading, by inserting “and Federal facility energy managers, shall” before “manufacturing).

(e) CONFORMING AMENDMENT.—Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8265b(d)) is amended in the section heading, by inserting “and Federal facility energy managers, shall” before “manufacturing).

(f) REPORTS.—Section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8259b(b)) is further amended by adding at the end the following:

“(1) 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).”.

(g) CONFORMING AMENDMENT.—Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8265b(d)) is amended in the second sentence by striking “the 20 percent reduction goal established under section 534(a) of the National Energy Conservation Policy Act (42 U.S.C. 8259a),” and inserting “each of the energy reduction goals established under section 534(a),”.

SEC. 912. ENERGY USE MEASUREMENT AND ACCOUNTABILITY.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8259c) is further amended by adding at the end the following:

“(e) METERING OF ENERGY USE.—

(1) DEADLINE.—On October 1, 2004, all Federal buildings shall be metered or submetered in accordance with guidelines established by the Secretary under paragraph (2).

(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 Service Administration and representatives from the electric power 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—
‘‘(1) 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; and

‘‘(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 size and the number of trained personnel necessary to gather and use the metering information to track and reduce energy use;

‘‘(III) not later than 1 year after the date of issuance of the guidelines, on which the requirement specified in paragraph (1) shall take effect; and

‘‘(IV) establish requirements from the requirement specified in paragraph (1) based on the de minimus quantity of energy use of a Federal building, industrial process, or structure.

‘‘(f) USE OF ENERGY CONSUMPTION DATA IN FEDERAL BUILDINGS.—

‘‘(1) IN GENERAL.—Beginning not later than January 1, 2008, each agency shall use, to the maximum extent practicable, for the purposes of efficient use of energy and reduction in the energy used in the design, operation, and maintenance of buildings of the agency, interval consumption data that measure on a real-time or daily basis consumption of electricity in the Federal buildings of the agency.

‘‘(2) PLAN.—As soon as practicable after the date of enactment of this subsection, in a report submitted by the agency under section 534A(a) of the Federal Energy Management Program Act (as added by subsection (a)), the head of each Federal agency shall include—

‘‘(I) a statement concerning whether the Federal buildings meet or exceed the revised standards established under this paragraph, together with a description of the energy savings due to utility contract aggregation;

‘‘(II) the extent to which metering and submetering services for the design, acquisition, installation, testing, operation, and maintenance of new buildings 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) a statement concerning the building or buildings that meet or exceed the revised standards established under this paragraph.

‘‘(g) PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.—

‘‘(1) REQUIREMENT.—To the extent that metering and submetering services for the design, acquisition, installation, testing, operation, and maintenance of new buildings is 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, an agency shall include in any inventory or listing of products by category to be purchased, in any request for offers, including a request for offers for the procurement of energy inefficient products or for the procurement of a service that includes the design, acquisition, installation, testing, operation, and maintenance of energy inefficient products, in any solicitation for offers for the procurement of Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by category to be purchased, including a request for offers for the procurement of Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by category to be purchased.

‘‘(2) PROCUREMENT PLANNING.—Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by category to be purchased.

‘‘(3) PROCUREMENT PLANNING.—The head of an executive agency shall incorporate into the specifications for all procurements involving energy consuming products and systems the requirement for the submission 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.

‘‘(h) LISTING OF ENERGY EFFICIENT PRODUCTS.—

‘‘(1) FEDERAL BUILDINGS.—

‘‘(A) IN GENERAL.—The Administrator of the Environmental Protection Agency shall issue guidelines to carry out section 532 of the National Energy Conservation Policy Act (as added by subsection (a)).

‘‘(B) DEFINITIONS.—In this section:

‘‘(I) ENERGY STAR PRODUCT.—The term ‘Energy Star product’ means a product that is designated under the Federal Energy Management Program of the Department of Energy as being among the highest energy efficiency groups.

‘‘(II) 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.

‘‘(3) PROCUREMENT PLANNING.—Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by category to be purchased, including a request for offers for the procurement of Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by category to be purchased.

‘‘(4) PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.—

‘‘(a) REQUIREMENTS.—Part III of title V of the National Energy Conservation Policy Act (42 U.S.C. 6834(a)) is amended—

‘‘(I) in subsection (a), by striking ‘(i)’ and ‘(ii),’ and inserting ‘(i)’;

‘‘(II) in paragraph (1), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(III) in paragraph (2), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(IV) in paragraph (3), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(V) in paragraph (4), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(VI) the most recent version of the International Energy Conservation Code (as added by paragraph (b));

‘‘(VII) the 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 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; and

‘‘(II) new residential buildings (other than those described in clause (i)) be constructed so as to achieve the applicable Energy Star energy performance ratings or 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

‘‘(2) PLAN.—As soon as practicable after the date of enactment of this Act, the Secretary of Energy shall establish, by rule, revised Federal building energy efficiency performance standards that require—

‘‘(A) new commercial buildings and multifamily high rise residential buildings be constructed so as to achieve the applicable Energy Star energy performance ratings or energy consumption levels at least 30 percent below the applicable Energy Star energy performance ratings or 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

‘‘(B) new residential buildings (other than those described in clause (i)) be constructed so as to achieve the applicable Energy Star energy performance ratings or 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

‘‘(VIII) the 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 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; and

‘‘(II) new residential buildings (other than those described in clause (i)) be constructed so as to achieve the applicable Energy Star energy performance ratings or 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

‘‘(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 as a result of—

‘‘(i) the lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services; or

‘‘(ii) other than a federally owned building or buildings or other federally owned facilities as a result of—

‘‘(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 the requirement for the submission 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.

‘‘(4) LISTING OF ENERGY EFFICIENT PRODUCTS.—

‘‘(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 as a result of—

‘‘(A) an Energy Savings Contract; or

‘‘(B) a FEMP designated product;

‘‘(2) the term ‘energy savings contract’ 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; or

‘‘(B) other than a federally owned building or buildings or other federally owned facilities as a result of—

‘‘(i) the lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services; or

‘‘(ii) other than a federally owned building or buildings or other federally owned facilities as a result of—

‘‘(A) an Energy Savings Contract; or

‘‘(B) a FEMP designated product.

‘‘(2) CONFORMING AMENDMENT.—The table of contents in section 801(c) of the National Energy Conservation Policy Act (42 U.S.C. 827c(c)) is amended by adding the following:

‘‘(2) PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.—

‘‘(a) REQUIREMENTS.—Part II of title V of the National Energy Conservation Policy Act (as added by subsection (a)) is amended—

‘‘(I) in subsection (a), by striking ‘(i)’ and ‘(ii),’ and inserting ‘(i)’;

‘‘(II) in paragraph (1), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(III) in paragraph (2), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(IV) in paragraph (3), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(V) in paragraph (4), by striking ‘(A)’ and inserting ‘(A)’;

‘‘(VI) the most recent version of the International Energy Conservation Code (as added by paragraph (b));

‘‘(VII) the 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 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; and

‘‘(II) new residential buildings (other than those described in clause (i)) be constructed so as to achieve the applicable Energy Star energy performance ratings or 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

‘‘(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 as a result of—

‘‘(A) Energy Savings Contract; or

‘‘(B) FEMP designated product;
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. 8287(c)(4)) is amended to read as follows:

"(4) a ‘fuel or water conservation measure’ means—

"(A) an energy conservation measure, as defined in section 551(4) (42 U.S.C. 8239(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 and recovery, and 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 and Federal agencies that are currently using or could benefit from using the Energy Savings Performance Contract program.

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) the ‘Federal Energy Bank’ means the Federal Energy Bank established by subsection (b);

"(2) ENERGY OR WATER EFFICIENCY PROJECT, 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) the life cycle cost;

"(B) title VIII; and

"(C) subtitle F of title I of the Energy Policy Act of 1992 (42 U.S.C. 8226 et seq.); or

"(2) any applicable Executive order, including Executive Order No. 13123.

"(3) FEDERAL AGENCY.—The term ‘Federal agency’ means—

"(1) the 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 withdrawals. Investments may be made only in interest-bearing obligations of the United States.

"(4) 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) ESTABLISHMENT.—In accordance with subsection (d), the Secretary, in consultation with the Secretary of Defense, the Administrator of General Services, 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 a satisfactory application 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, for a new or existing Federal facility; and

"(II) to pay 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;

"(ii) at the time of contracting, the costs of cofunding of an energy savings performance contract, for a new or existing Federal facility (including selection and design of the project);

"(iii) 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, for a new or existing Federal facility (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;

"(B) in general.—A Federal agency may use no more than 10 percent of the amount of a loan under clause (i) or (II) of clause (i) of the bill to pay the costs of administration and proposal development (including data collection and energy surveys).

"(C) RENEWABLE AND ALTERNATIVE ENERGY PROJECT.—In the case of any loan to renovate 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 of the Treasury as having applicable law (including Executive Orders)).

"(D) REPAYMENTS.—

"(1) IN GENERAL.—Subject to clauses (i) through (v)(I) of this subparagraph, the Secretary 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 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.—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.

"(V) 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 REPURPOSING.—A Federal agency shall not rescind or repurpose 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 funded 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) measure and monitor energy efficiency management at existing Federal facilities; and

"(III) verify the energy savings under an energy savings performance contract under title VIII; and

"(iv) in the case of renewable energy or alternative energy project, has a simple payback period of not more than 15 years; and

"(B) PRIORITY.—In selecting projects, the Secretary shall give priority to projects that—

"(1) are a component of a comprehensive energy management project for a Federal facility; and
SEC. 921. VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY.

(a) VOLUNTARY AGREEMENTS.—The Secretary of Energy shall enter into voluntary agreements with public or private 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 shall receive technical assistance to achieve the energy intensity goals specified in the agreement.

(f) REPORT.—Not later than June 30, 2006, the Secretary shall submit to Congress a report that—

(i) identifies potential energy savings projects; and

(ii) identifies barriers to the implementation of energy conservation projects.

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’ before ‘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(1), by inserting ‘or commercial’ after ‘consumer’ the first place it appears in the material preceding paragraph (1).
SEC. 324. ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—Section 323 of the Energy Policy and Conservation Act (42 U.S.C. 6263) is amended by adding at the end the following:

"(a) E XIT SIGNS.—Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6263) is amended by adding at the end the following:

"(2) work to enhance public awareness of the Energy Star label; and

"(3) solicits 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, provides an explanation or the decision that responds to significant public comments.".

SEC. 927. ENERGY CONSERVATION STANDARDS FOR ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6266) is amended by adding at the end the following:

"(c) REQUIREMENTS.—

"(1) Except as provided in paragraph (3), the seasonal energy efficiency ratio of central air conditioners and central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 12.0.

"(2) Except as provided in paragraph (4), the heat pump performance factor of central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 7.7.

"(3) The seasonal energy efficiency ratio of central air conditioners or central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 13.0.

"(4) The heat pump performance factor of central air conditioning heat pumps manufactured on or after January 23, 2006 shall be no less than 10.0.

"(b) R ULEMAKING ON LABELING.—Section 324(a) of the Energy Policy and Conservation Act (42 U.S.C. 6269(a)) is amended by adding at the end the following:

"(A) the criteria in paragraph (3).

"(B) have a rated cooling capacity equal to or less than 30,000 Btu per hour;

"(C) be available for purchase in the United States as of December 1, 2000.

"(4) The offer of a standby mode is not required if it is determined that—

"(i) the standby mode is not technologically feasible, or

"(ii) the priority and energy savings potential of standards which may be promulgated under this subsection compared to other requirements in this section and the available resources of the Department to conduct such rulemakings.

"(C) not later than one year after the date of enactment of this subsection, the Secretary shall publish a final rule not later than January 1, 2006 to determine whether the standards in effect for central air conditioning and central air conditioning heat pumps should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 23, 2011.

"(d) R ULEMAKING FOR ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6266) is amended by adding at the end the following:

"(1) INITIAL RULEMAKING.—

"(A) Not later than 180 days after the date of enactment of this subsection, the Secretary shall publish a final rule not later than January 1, 2006 to determine whether the standards in effect for central air conditioning and central air conditioning heat pumps should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 2011.

"(B) not economically justifiable.

"(2) Exercise judgment as to whether the standards in effect for central air conditioning and central air conditioning heat pumps should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 23, 2011.

"(C) not later than one year after the date of enactment of this subsection, the Secretary shall issue a determination of any new covered products for which it intends to
institute rulemakings on standby mode pur-
suant to this section and he shall state the
dates by which he intends to initiate those
rulemakings.

(3) REVIEW OF STANDBY ENERGY USE IN COV-
ERED PRODUCTS.—In determining pursuant to
section 323 whether test procedures and en-
ergy conservation standards pursuant to sec-
tion 322(b)(2)(B) are needed for a product,
the Secretary shall consider for covered products which are
major sources of standby mode energy con-
sumption whether to incorporate standby mode 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 conserva-
tion 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 standard the Secretary has
formulated applicable test procedures for each
product pursuant to section 323.

(C) The provisions of section 323 shall apply
for non-covered products in subparagraph (B) in a
test which the Secretary is subject to the rulemakings for standby mode
after a final rule has been issued.

(5) EFFECTIVE DATE.—Any standard pro-
posed under this subsection shall be ap-
plicable to products manufactured or im-
ported three years after the date of promul-
gation.

(6) VOLUNTARY PROGRAMS TO REDUCE STAN-
DBY MODE ENERGY USE.—The Secretary and the
Administrator shall collaborate and develop
programs, including programs pursuant to section 325 or voluntary industry
agreements or codes of conduct, which are
designed to reduce standby mode energy use.

(7) SUSPENDED CEILING FANS, VENDING MACHINES,
UNIT HEATERS, AND COMMERCIAL
REFRIGERATORS, FREEZERS AND REFRIG-
ERATOR-FREEZERS.—The Secretary shall
within 24 months after the date on which
testing requirements are prescribed by the
Secretary pursuant to section 323(c), pre-
scribe, by rule, energy conservation stan-
dards for suspended fans, refrigerated bottled or canned beverage vending ma-
achines, unit heaters, and commercial refrig-
erators, freezers and refrigerator-freezers. In
establishing standards under this subsection, the
Secretary shall use the criteria and pro-
cedures contained in subsections (1) 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.

(8) ILLUMINATED EXIT SIGNS.—Illumi-
nated exit signs manufactured on or after
January 1, 2006 shall meet the Energy Star Program performance requirements for il-
uminated exit signs prescribed by the En-
vironmental Protection Agency as in effect on
the date of enactment of this subsection.

(9) TORCHIERES.—Torchieres manufac-
tured on or after January 1, 2005

(A) shall consume not more than 190 watts of
power; and

(B) shall not be capable of operating with
lamps at total more than 190 watts.

(10) LOW VOLTAGE DRY-TYPE TRANS-
FORMERS.—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 the Guide to the "Guide to
Minimizing Energy Efficiency for Distribution Transformers" published by the National
Electrical Manufacturers Association (NEMA TP-1-1996)."

SEC. 929. CONSUMER EDUCATION ON ENERGY EF-
FICIENCY BENEFITS OF AIR CONDI-
TIONING SYSTEMS AND VENTILA-
TION MAINTENANCE.

Section 337 of the Energy Policy and Con-
servation Act (42 U.S.C. 6307) is amended by
adding after the following:

"(c) HVAC MAINTENANCE.—(1) For the pur-
pose of ensuring that installed air condi-
tioning and heating systems operate at their
maximum rated efficiency levels, the Sec-

etary shall, within 180 days of the date of
enactment of this subsection, carry out a pro-
gram to encourage homeowners and small
business owners concerning the energy sav-
ings resulting from properly conducted
maintenance of air conditioning, heating,
and ventilating systems.

(2) The Secretary may carry out the pro-
gram in cooperation with industry trade as-
sociations, industry members, and energy ef-
ficiency organizations.

Subtitle D—Housing Efficiency

SEC. 931. CAPACITY BUILDING FOR ENERGY EFFI-
CIENT, AFFORDABLE HOUSING.

Section 4(b) of the HUD Demonstration
Act of 1993 (42 U.S.C. 8815 note) is amended
(1) in paragraph before the semicolon at the
beginning of the subsection, by striking "or
separate" and inserting "and separate;
and"
(2) in paragraph (2), by striking the semicolon
at the end of (2); and

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

"(x) TORCHIERES.—Torchieres manufac-
tured on or after January 1, 2005 shall
not exceed 190 watts of power output and
shall not contain bulbs that consume more
than 190 watts of power.

(3) REVIEW OF STANDBY ENERGY USE IN COV-
ERED PRODUCTS.—Section 323 of the National Housing Act (12 U.S.C. 1715k) is
amended by striking "20 per centum" and
inserting "30 per centum".

(b) MUltIFAMILY HOUSING MORTGAGE INS-
URANCE.—Section 221(k) of the National
Housing Act (12 U.S.C. 1709k) is amended
by striking "20 per centum" and inserting
"30 per centum".

SEC. 934. PUBLIC HOUSING CAPITAL FUND.

Section 9(d)(1) of the United States Hous-
ing Act of 1937 (42 U.S.C. 1437g(d)(1)) is amended
by striking "and inserting "and"
(2) by striking the period at the end
(3) by adding at the end the following new
paragraph:

"(L) improvement of energy and water-use efficiency by installing fixtures and fittings
that conform to the American Society of Me-
chanical Engineers/American National
Standards Institute standards A112.19.2–1998
and 112.18.1-2000, or any revision thereto,
aplicable at the time of installation, and by
increasing energy efficiency and water con-
servation by such other means as the Sec-
cretary determines are appropriate.
""SEC. 935. GRANTS FOR ENERGY-CONSERVING IM-
PROVEMENTS FOR ASSISTED HOUS-
ING.

Section 251(b)(1) of the National Energy
Conservation Policy Act (42 U.S.C. 8231(b)(1)) is amended
by striking "financed with loans" and
inserting "assisted";

by inserting "or paragraph (10)";

in subparagraph (K), by striking the pe-
riod at the end
by adding at the end the following:

"(1) by striking "or efficiency" after "en-
ficiency conservation";

(2) by striking "and except that" and in-
serting "except that";

(3) by striking the period at the end
of the subsection.

SEC. 936. NORTH AMERICAN DEVELOPMENT
BANK.

Part 2 of subtitle D of title V of the North
American Free Trade Agreement Imple-
mation Act (22 U.S.C. 2926m-290m) is amend-
ed by adding at the end the following:

"SEC. 545. SUPPORT FOR CERTAIN ENERGY POLI-
CIES.

"Consistent with the focus of the Bank's
Charter on environmental infrastructure
projects, the Board of Directors of the Bank determining the United States should use their voice and
vote to encourage the Bank to finance projects related to clean and efficient en-
ergy technologies that prevent, control, or reduce environmental
pollutants or contamians."
DIVISION D—INTEGRATION OF ENERGY POLICY AND CLIMATE CHANGE POLICY

TITLE X—CLIMATE CHANGE POLICY FORMULATION

Subtitle A—Global Warming

SEC. 1001. SENSE OF CONGRESS ON GLOBAL WARMING.

(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 activity" 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".

(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 threaten to inundate low-lying island nations and coastal regions throughout the world.

(5) The Environmental Protection Agency has found that global warming 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, done at New York on May 9, 1992, 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", and which states that "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".

(7) 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.

(8) The United Nations Framework Convention on Climate Change further states 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.

(9) Senate Resolution 98 of July 1997, which expressed that developing nations, especially the large historic and current emitters of greenhouse gases, are the largest historic and current emitters of greenhouse gases and developing nations’ emissions will significantly increase in the future.

(10) The United States has benefitted and will continue to benefit from investments in the research and development of a range of clean energy and efficiency technologies that can mitigate global warming 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 mitigating the health, environmental, and economic threats posed by global warming 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, emissions trading and carbon sequestration projects that will reduce, avoid, and sequester greenhouse gas emissions; and

(3) participating in international negotiations, including putting forth a proposal at the next meeting of the Conference of the Parties, with the objective of securing an agreement of Kyoto Protocol or other future binding climate change agreements in a manner that is consistent with the environmental objectives of the United States.

Subtitle B—Climate Change Strategy

SEC. 1011. SHORT TITLE.

This title may be cited as the “Climate Change Strategy and Technology Innovation Act of 2002”.

SEC. 1012. FINDINGS.

Congress finds that—

(1) evidence continues to build that increases in atmospheric concentrations of greenhouse gases are contributing to global climate change;

(2) in 1992, the United States ratified the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, 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";

(3) although currently cannot determine precisely what atmospheric concentrations are "dangerous", the current trajectory of greenhouse gas emissions will lead to a significant increase in greenhouse gas concentrations in the atmosphere, not stabilization;

(4) the remaining scientific uncertainties call for a precautionary human actions, but not inaction;

(5) greenhouse gases are associated with a wide range of human activities, including energy production, transportation, agriculture, forestry, manufacturing, buildings, and other activities;

(6) the economic consequences of poorly designed climate change response strategies or of inaction, may cost the global economy trillions of dollars;

(7) a large share of this economic burden would be borne by the United States;

(8) stabilization of greenhouse gas concentrations in the atmosphere will require transformational change in the global energy system and other emitting sectors at an almost unimaginable level—a veritable industrial revolution is required;

(9) such a revolution can occur only if the revolution in research and development that leads to bold technological breakthroughs;

(10) over the decade preceding the date of enactment—

(A) energy research and development budgeted in the public and private sectors have declined precipitously and have not been focused on the climate change response challenge; and

(B) the investments that have been made have not been guided by a comprehensive strategy;

(11) the negative trends in research and development funding described in paragraph (10) must be reversed with a focus not only traditional energy research and development, but also broader, breakthrough research;

(12) much more progress could be made on the issue of climate change if the United States were to adopt a new approach for addressing climate change that included, as an ultimate long-term goal—

(A) stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system; and

(B) a response strategy with 4 key elements consisting of—

(i) definition of interim emission mitigation levels, that, coupled with specific mitigation approaches and after taking into account actions by other nations (if any), could result in stabilization of greenhouse gas concentrations;

(ii) technology development, including—

(I) a national commitment to double energy research and development in the United States public and private sectors; and

(II) in carrying out such research and development, a national commitment to provide high degree of freedom for bold, breakthrough technologies that will make possible a profound transformation of the energy system, including industrial, agricultural, and building sectors of the United States;

(iii) climate adaptation research that focuses on response actions necessary to adapt to climate change that may have already occurred; and

(II) focuses on response actions necessary to adapt to climate change that may occur under any future climate change scenario; and

(iv) climate science research that—

(I) builds on the substantial scientific understanding of climate change that exists as of the date of enactment of this Act; and

(II) focuses on resolving the remaining scientific technical, and uncertainties to aid in the development of sound response strategies; and

(10) must be reversed with a focus not only traditional energy research and development, but also broader, breakthrough research that will make possible a profound transformation of the energy system, including industrial, agricultural, and building sectors of the United States;

(11) that climate change is a national priority for the United States;

(12) the Environmental Protection Agency, the National Science Foundation, the National Aeronautics and Space Administration, the National Institute of Standards and Technology, the National Oceanic and Atmospheric Administration, the Council on Environmental Quality, the Department of Defense, the Department of Homeland Security, the Department of State, the Department of the Interior, the Department of the Treasury, the National Aeronautics and Space Administration, the Department of Energy, the National Science Foundation, the National Institutes of Health, the Department of Commerce, the Department of Agriculture, and the Department of Education have not been guided by a comprehensive strategy that—

(A) incorporates the 4 key elements of that new approach;

(B) is supportive of and integrated in the overall energy, transportation, industrial, agricultural, forestry, and environmental policies of the United States;

(13) it takes into account—

(i) the diversity of energy sources and technologies;
(ii) supply-side and demand-side solutions; and
(iii) national infrastructure, energy distribution, and transportation systems;
(D) defines a comprehensive energy technology research and development program that—
(i) recognizes the important contributions that research and development programs in existence on the date of enactment of this title make toward addressing the climate change response challenge; and
(ii) includes an additional research and development agenda that focuses on the bold, breakthrough technologies that are critical to the long-term stabilization of greenhouse gas concentrations in the atmosphere;
(G) includes consideration of other efforts to address critical environmental and health concerns, including clean air, clean water, and responsible land use policies; and
(H) incorporates initiatives to promote the deployment of clean energy technologies developed in the United States and abroad;
(2) the establishment of the Office of Climate Change Technology within the Department of Energy,
(A) to manage, as its primary responsibility, an innovative research and development program that focuses on the bold, breakthrough technologies that are critical to the long-term stabilization of greenhouse gas concentrations in the atmosphere; and
(B) to provide analytical support and data to the White House Office, other agencies, and the public;
(3) the establishment of an independent review board—
(A) to review the Strategy and annually assess United States and international progress toward the goal of stabilization of greenhouse gas concentrations in the atmosphere that would prevent dangerous anthropogenic interference with the climate system; and
(B) to assess—
(i) the performance of each Federal agency that has responsibilities under the Strategy;
(ii) the adequacy of the budget of each such Federal agency, as of the date of enactment of this Act; and
(iii) the establishment of offices in, or the carrying out of activities by, the Department of Agriculture, the Department of Transportation, the Department of Commerce, the Environmental Protection Agency, and other Federal agencies as necessary to carry out this title.
SEC. 1014. DEFINITIONS.
In this title:
(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 1019.
(4) FEDERAL AGENCY.—The term "Federal agency" has the meaning given the term "agency" in section 501 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 United States Climate Change Response Interagency Task Force established under section 1016(d).
(7) KEY ELEMENT.—The term "key element", with respect to the Strategy, means—
(A) a definition of interim emission mitigation levels, that, coupled with specific mitigation approaches taken into account actions by other nations (if any), would result in stabilization of greenhouse gas concentrations; and
(B) technology development, including—
(i) the performance of each Federal agency that has responsibilities under the Strategy;
(ii) the adequacy of the budget of each such Federal agency that has responsibilities under the Strategy; and
(iii) the establishment of offices in, or the carrying out of activities by, the Department of Agriculture, the Department of Transportation, the Department of Commerce, the Environmental Protection Agency, and other Federal agencies as necessary to carry out this title.
SEC. 1015. UNITED STATES CLIMATE CHANGE RESPONSE STRATEGY.
(a) IN GENERAL.—The Director of the White House Office shall develop the United States Climate Change Response 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 stabilization will take from many decades to more than a century, but acknowledging that significant actions must begin in the near term;
(3) build on the 4 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 U.S. treaty commitments) and activities taken by the United States and other nations (if any), would culminate in the stabilization of greenhouse gas concentrations;
(5) recognize 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 limited to mitigation activities, terrestrial sequestration, earning offset credits through carbon capture or project-based activities, trading of emissions credits in domestic and international markets, and the application of the resulting credits from one or more within the United States;
(6) minimize any adverse short-term and long-term social, economic, national security, and environmental impacts, including those that may arise 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) Recognize that the climate change response strategy is intended to guide the nation’s effort to address climate change, but it shall not limit the determination of legal obligations, duties, and responsibilities of any person or entity other than the duties of the Director of the White House Office and Interagency Task Force in the development and implementation of the Strategy.

(9) Be consistent with the goals of energy, transportation, industrial, agricultural, forestry, building, and other relevant policies of the United States.

(10) Be consistent with the goals of energy, transportation, industrial, agricultural, forestry, building, and other relevant policies of the United States.

(11) Have a scope that considers the totality of United States public, private, and public-private sector actions that bear on the long-term goal.

(12) Be based on an evaluation of a wide range of approaches for achieving the long-term goal, 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 foreign countries;

(C) Participation in other international initiatives, such as support of international activities, that are established or conducted to facilitate stabilization of greenhouse gas concentrations;

(D) In the final recommendations of the Strategy, emphasize response strategies that achieve the long-term goal and provide specific criteria for evaluating strategies.

(A) 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 that lead toward achievement of the long-term goal; and

(ii) Minimize any adverse short-term and long-term economic, environmental, national security, and social impacts on the United States;

(B) 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 stabilization of greenhouse gas concentrations; and

(ii) Expanding the range of energy sources, energy conversion and use technologies, and efficiency options;

(C) Such changes in institutional and technological systems as are necessary to adapt to climate change in the short-term and the long-term;

(D) Such review, modification, and enhancement of 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

(E) 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 and deployment of technologies.

(14) Be developed in a manner that provides for meaningful participation by, and consultation among, Federal, State, tribal, and local governments; organized business, non-profit organizations, academia, scientific bodies, industry, the public, and other interested parties in accordance with subsections (b)(4)(C)(i)(II) and (d)(3)(B)(ii) of section 1016;

(15) Address how the United States should engage Stakeholder, State, 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 ensure that they do not result in serious harm to the economy of the United States;

(19) Include any recommendations for legislative and administrative actions necessary to implement the Strategy;

(20) At the end of each 1-year period for climate change response 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;

(23) Be subject to review by an independent review board in accordance with section 1019.

(b) Submission to Congress.—Not later than 1 year after the date of enactment of this title, the President shall submit to Congress an updated version of the Strategy.

(c) Updating.—Not later than 2 years after the date of submission of the Strategy to Congress under subsection (b), and at the end of each 2-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 at the end of each 2-year period thereafter, the President shall submit to Congress a report that—

(1) Describes the progress on implementation of the Strategy; and

(2) Provides recommendations for improvement of the Strategy and the implementation of the Strategy.

(e) Alignment with Energy, Transportation, Industrial, Agricultural, Forestry, and Other Policies.—The President of the White House Office shall work together to align the actions carried out under the Strategy and the actions associated with the energy, transportation, industrial, agricultural, forestry, and other relevant policies of the United States so that the objectives of both the Strategy and the policies are met without compromising the climate change-related goals of the Strategy or the goals of the policies.

SEC. 1016. NATIONAL OFFICE OF CLIMATE CHANGE RESPONSE OF THE EXECUTIVE OFFICE OF THE PRESIDENT.

(a) Establishment.—

(1) In general.—There is established, within the Executive Office of the President, the National Office of Climate Change Response.

(2) Focus.—The White House Office shall have the focus of achieving the long-term goal of stabilization of greenhouse gas concentrations, including designing short-term and long-term economic and social impacts.

(b) 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 President in developing and implementing the Strategy;

(C) To the maximum extent practicable, ensure that the Strategy is based on objective, analytical capabilities of Federal and State agencies, especially the Department of Defense;

(D) Advise the President concerning necessary changes in organizations, 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 stabilization of greenhouse gas concentrations.

(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.

(2) Appointment.—The Director of the White House Office shall be a qualified individual appointed by the President, in consultation with the advice and consent of the Senate.

(3) Duties of the Director of the White House Office—

(A) Strategy.—In accordance with section 1015, 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 Chairperson of the Interagency Task Force.

(C) Advisory duties—

(i) Climate, Energy, 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, transportation, industrial, agricultural, forestry, building, and other relevant programs are capable of producing progress on the long-term goal of stabilization of greenhouse gas concentrations; and

(II) The extent to which proposed or newly created energy, 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 stabilization of greenhouse gas concentrations.

(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 United States tax policy, trade policy, and foreign policy are capable of producing progress on the long-term goal of stabilization of greenhouse gas concentrations; 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 stabilization of greenhouse gas concentrations.

(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—

(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) focusing on the extent to which the treaties advance the long-term goal of stabilization of greenhouse gas concentrations, 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.—In addition to the President, the Senate Committee on Environment and Public Works, the Senate Select Committee on Energy Independence and Global Warming, the Congress, and the heads of such other Federal agencies as the Chairperson determines should be members of the Interagency Task Force.

(II) WITH OTHER INTERESTED PARTIES.—The Director of the White House Office shall establish the United States Climate Change Response 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 Chairperson;

(B) the Secretary of State;

(C) the Secretary of Commerce;

(D) the Secretary of Agriculture;

(E) the Attorney General;

(F) the Secretary of Energy;

(G) the Administrator of the Environmental Protection Agency;

(H) the Administrator of the National Aeronautics and Space Administration;

(I) the Administrator of the Agency for International Development;

(J) the United States Trade Representative;

(K) the National Security Advisor;

(L) the Chairman of the Council of Economic Advisers;

(M) the Chairman of the Council on Environmental Quality;

(N) the Director of the Office of Science and Technology Policy;

(O) the Chairperson of the Subcommittee on Global Change Research (which performs the functions of the Committee on Earth and Environmental Sciences established by section 102 of the Global Change Research Act of 1990 (42 U.S.C. 18911));

(P) the heads of such other Federal agencies as the Chairperson determines should be members of the Interagency Task Force.

(3) STRATEGY.

(A) IN GENERAL.—The Interagency Task Force shall serve as the primary forum through which the Federal agencies represented in the Interagency Task Force jointly—

(i) assess the progress in implementation of the Strategy;

(ii) advise the Secretary on climate technology strategies and associated policies;

(iii) provide information to the President on the status of the Strategy and the activities of the United States under the Strategy.

(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 1015(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 Chairperson of the Interagency Task Force may establish such working groups as are necessary to carry out the duties of the Interagency Task Force.

(5) PROVISION OF SUPPORT STAFF.—In accordance with procedures established by the Chairperson 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.

(6) HEARING.—In request of the Chairperson, 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. 1017. TECHNOLOGY INNOVATION PROGRAM IMPLEMENTED THROUGH THE OFFICE OF CLIMATE CHANGE TECHNOLOGY OF THE DEPARTMENT OF ENERGY.

(a) ESTABLISHMENT OF OFFICE OF CLIMATE CHANGE TECHNOLOGY OF THE DEPARTMENT OF ENERGY.

(1) IN GENERAL.—There is established, within the Department of Energy, 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 national climate change policy of long-term stabilization of greenhouse gas concentrations 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 title;

(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 stabilization of greenhouse gas concentrations 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 stabilization of greenhouse gas concentrations; and

(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) transitioning research and development programs to other programs that grow out of partnerships established by 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) prepare annual reports in accordance with subsection (b)(6);

(C) identify the total contribution of all Department programs to climate change response;

(D) provide substantial analytical support to the White House Office, particularly support in the development and associated progress reporting; and

(E) advise the Secretary on climate change-related issues, including necessary changes in Department management, budgeting, and personnel allocations in the programs involved in climate change response-related activities.

(b) DIRECTOR OF THE DEPARTMENT OFFICE.

(1) IN GENERAL.—The Department Office shall be headed by a Director, who shall report directly to the Secretary.

(2) APPOINTMENT.—The Director of the Department Office shall be an employee of the Federal Government who is a qualified individual appointed by the President by and with the advice and consent of the Senate.

(3) TERM.—The Director of the Department Office shall be appointed for a term of 4 years.

(4) VACANCIES.—A vacancy in the position of the Director of the Department Office shall be filled in the manner and as provided in subsection (b)(1).

(c) DUTIES OF THE DIRECTOR OF THE DEPARTMENT OFFICE.

(A) TECHNOLOGY DEVELOPMENT.—The Director of the Department Office shall manage the technology research and development program described in subsection (a)(2)(A).

(B) STRATEGY.—The Director of the Department Office shall support development of the Strategy through the provision of staff and analytical support.
(C) INTERAGENCY TASK FORCE.—Through active participation in the Interagency Task Force, the Director of the Department Office shall—

(i) based on the analytical capabilities of the Department Office, share analyses of alternative climate change response strategies with other members of the Interagency Task Force to assist all members in understanding—

(I) the scale of the climate change response challenge; and

(ii) the actions of the Federal agencies of the members positively or negatively contribute to climate change solutions; and

(b) determine how the energy technology research and development program described in subsection (a)(2)(A) can be designed for maximum impact on the long-term goal of stabilization of greenhouse gas concentrations.

(D) TOOLS, DATA, AND CAPABILITIES.—The Director of the Department Office shall 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 strategies; and

(ii) the Department Office provides long-term analytical continuity during the terms of service of successive Presidents.

(E) THE INTERAGENCY TASK FORCE.—The Director of the Department Office shall advise the Secretary on all aspects of climate change response.

(F) ANNUAL REPORTS.—The Director of 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 subsection (a)(2)(A);

(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 specified in section 1015(a); and

(D) makes recommendations for actions by the Department and other Federal agencies to address the components of technology development that are necessary to support the Strategy.

(2) ANALYSIS.—During development of the Strategy, annual reports submitted under paragraph (6), and advice to the Secretary, the Director of the Department Office shall place special emphasis on the use of objective, quantitative analysis, taking into consideration any associated uncertainties.

(C) STAFF.—The Director of the Department Office shall employ a professional staff of not more than 25 individuals to carry out the duties of the Department Office.

(d) DEPARTMENTAL, PERSONNEL, AND FELLOWSHIPS.—The Department Office may use the authority provided by the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4731 et seq.), subchapter VI of chapter 33 of title 5, United States Code, and other Departmental personnel authorities, to obtain staff from academia, scientific bodies, nonprofit organizations, industry, and national laboratories, for appointments of a limited term.

(e) RELATIONSHIP TO OTHER DEPARTMENT PROGRAMS.—Each project carried out by the Department Office shall be—

(1) initiated only after consultation with 1 or more of the other Federal offices of the Department that support research and development in areas relating to the project;

(2) managed by the Department Office; and

(3) a project that reaches a sufficient level of maturity, with the concurrence of the Department Office and an appropriate office described in paragraph (1), transferred to the appropriate 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.

(f) ANALYSIS OF STRATEGIC CLIMATE CHANGE RESPONSE.—

(1) IN GENERAL.—The Department Office shall foster the development and application of advanced computing 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.

(B) PARTICIPATION AND SUPPORT.—Projects supported by the Department Office may include participation that should be supported by other Federal agencies that have a role in the development, commercialization, or transfer of energy, transportation, industrial, agricultural, or other climate change-related technology.

(2) PROGRAMS.—

(A) IN GENERAL.—The Department Office shall—

(i) develop and maintain core analytical competencies and complex, integrated computational models 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 stabilization of greenhouse gas concentrations.

(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 programs, the Department Office shall employ a professional staff to develop and maintain 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 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 develop and implement 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 markets and foreign markets.

(C) DISSEMINATION OF INFORMATION.—The Department Office shall ensure, to the maximum extent practicable, that technical and scientific knowledge relating to greenhouse gas emissions reduction, avoidance, and sequestration programs is disseminated through publications, fellowships, and training programs.

(5) ASSESSMENTS.—In a manner consistent with that reached by the Change Response Strategy Review Board, 5 conduct assessments of deployment of climate-friendly technology.

(6) USE OF PRIVATE SECTOR FUNDING.—

(A) IN GENERAL.—The Department Office shall create an operating model that allows for collaboration, division of effort, and cost sharing among the Federal agencies and individual climate change response projects.

(B) REQUIREMENTS.—Although cost sharing in some cases may be appropriate, the Department Office’s cost-sharing agreements for 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 TRANSITION.—At such time as any bold, breakthrough research and development project reaches a sufficient level of technological maturity such that the program is transitioned to a program office of the Department other than the Department Office, the cost-sharing requirements and criteria applicable to the program should be reevaluated.

(D) PUBLICATION IN FEDERAL REGISTER.—Each cost-sharing agreement entered into under this subparagraph shall be published in the Federal Register.

SECTION 1018. 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.

SECTION 1019. UNITED STATES CLIMATE CHANGE RESPONSE STRATEGY REVIEW BOARD.

(a) ESTABLISHMENT.—There is established as an independent establishment within the executive branch the United States Climate Change Response Strategy Review Board.

(b) MEMBERSHIP.—

(1) COMPOSITION.—The Review Board shall consist of 11 members who shall be appointed, not later than 90 days after the date of enactment of this Act, by the President by and with the advice and consent of the Senate, from among qualified individuals nominated by the National Academy of Sciences in accordance with paragraph (2).

(2) NOMINATIONS.—Not later than 60 days after the date of enactment of this Act, after taking into strong consideration the guidance and recommendations of a range of scientific and technical societies that have the capability of recommending qualified individuals, the National Academy of Sciences shall nominate for appointment to the Review Board not fewer than 22 individuals who—

(A) are—

(i) qualified individuals; or

(ii) experts in a field of knowledge specified in section 1014(b); and

(B) as a group represent broad, balanced expertise.

(3) PROHIBITION ON FEDERAL GOVERNMENT EMPLOYMENT.—A member of the Review Board shall not be an employee of the Federal Government.

(4) TERMS; VACANCIES.—

(A) TERMS.—

(i) IN GENERAL.—Subject to clause (ii), each member of the Review Board shall be appointed for a term of 4 years.

(ii) INITIAL TERMS.—The term of each member initially appointed to the Review Board shall commence 120 days after the date of enactment of this title.

(iii) TERMINATION DATE.—Of the 11 members initially appointed to the Review Board, 5 members shall be appointed for a term of 2 years and 6 members shall be appointed for a term of 4 years after the date of enactment of this title.
term of 4 years, to be designated by the President at the time of appointment.

(B) VACANCIES.—(1) IN GENERAL.—A vacancy on the Review Board shall be filled in the manner described in this subparagraph.

(ii) NOMINATIONS BY THE NATURAL ACADEMY OF SCIENCES.—Not later than 60 days after the vacancy occurs, the National Academy of Sciences shall—

(I) after taking into strong consideration the guidance and recommendations of a broad range of scientific and technical societies that have the capability of recommending qualified individuals, nominate, from among qualified individuals, not fewer than 2 individuals to fill the vacancy; and

(II) submit the names of the nominees to the President.

(iii) SELECTION.—Not later than 30 days after the date on which the nominations under clause (ii) are submitted to the President, the President shall select from among the nominees an individual to fill the vacancy.

(iv) SENATE CONFIRMATION.—An individual appointed to fill a vacancy on the Review Board shall be appointed by and with the advice and consent of the Senate.

(5) APPLICABILITY OF ETHICS IN GOVERNMENT ACT OF 1978.—A member of the Review Board shall be an individual subject to the Ethics in Government Act of 1978 (5 U.S.C. App.).

(6) CHAIRPERSON; VICE CHAIRPERSON.—The members of the Review Board shall select a Chairperson and a Vice Chairperson of the Review Board from among the members of the Review Board.

(c) DUTIES.—(1) IN GENERAL.—Not later than 180 days after the date of submission of the initial Strategy under section 1015(b), each updated version of the Strategy under section 1015(c), and each progress report under section 1015(d), the Review Board shall submit to the President, Congress, and the heads of Federal agencies as appropriate a report assessing the adequacy of the Strategy or report.

(2) COMMENTS.—In reviewing the Strategy or a report under paragraph (1), the Review Board shall consider and comment on—

(A) the adequacy of effort and the appropriateness of focus of the totality of all public, private, and public-private sector activities of the United States with respect to the key elements;

(B) the extent to which actions of the United States, with respect to climate change, complement or leverage international research and other efforts designed to manage global emissions of greenhouse gases, to further the long-term goal of stabilization of greenhouse gas concentrations;

(C) the funding implications of any recommendations made by the Review Board; and

(D)(i) the effectiveness with which each Federal agency is carrying out the responsibilities of the Federal agency with respect to the short-term and long-term greenhouse gas management goals; and

(ii) the adequacy of the budget of each such Federal agency to carry out those responsibilities.

(3) ADDITIONAL RECOMMENDATIONS.—(A) IN GENERAL.—Subject to subparagraph (B), the Review Board, at the request of the President or Congress, may provide recommendations on additional climate change-related topics.

(B) INDEPENDENT DUTY.—The provision of recommendations under subparagraph (A) shall be a secondary duty to the primary duty of the Review Board of providing independent oversight of the Strategy and the reports under paragraphs (1) and (2).

(d) POWERS.—(1) HEARINGS.—(A) IN GENERAL.—On request of the Chairperson or a majority of the members of the Review Board, the Review Board may hold such hearings, at such times and places, take such testimony, and receive such evidence as the Review Board considers to be appropriate.

(B) ADMINISTRATION OF OATHS.—Any member of the Review Board may administer an oath or affirmation to any witness that appears before the Review Board.

(2) PRODUCTION OF DOCUMENTS.—(A) IN GENERAL.—On request of the Chairperson or a majority of the members of the Review Board, and subject to applicable law, the Secretary, the Executive Director of a Federal agency represented on the Interagency Task Force, or a contractor of such an agency, shall provide the Review Board with such records, documentation of work in progress, or a report under paragraph (1), the Review Board may use the United States mails in the same manner and under the same conditions as other agencies of the Federal Government.

(e) COMPENSATION OF MEMBERS.—A member of the Review Board is compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5316 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Review Board.

(f) TRAVEL EXPENSES.—A member of the Review Board shall be allowed travel expenses, including per diem in lieu of subsistence, in amounts 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 Review Board.

(g) STAFF.—(1) IN GENERAL.—The Chairperson of the Review Board shall, without regard to the provisions of title 5, United States Code, regarding appointments in the competitive service, appoint and terminate an executive director and other personnel with such authority and duties as are necessary to enable the Review Board to perform the duties of the Review Board.

(2) CONFIRMATION OF EXECUTIVE DIRECTOR.—The employment of an executive director shall be subject to confirmation by the Review Board.

(h) COMPENSATION.—(1) IN GENERAL.—Except as provided in subparagraph (b), the Chairperson of the Review Board may fix the compensation of the executive director and other personnel without regard to chapter 51 and subchapter III of chapter 53 of title 5, United States Code, relating to classification of positions and General Schedule pay rates.

(2) MAXIMUM RATE OF PAY.—The rate of pay for the executive director and other personnel shall not exceed the rate payable for level V of the Executive Schedule under section 5316 of title 5, United States Code.

(i) PROCUREMENT OF TEMPORARY AND INTERMITTENT SERVICES.—(A) The Chairperson of the Review Board may procure temporary and intermittent services in accordance with section 3109(b) of title 5, United States Code, at rates for individuals that do not exceed the rate of basic pay prescribed for level V of the Executive Schedule under section 5316 of that title.

SEC. 1020. AUTHORIZATION OF APPROPRIATIONS.

(a) WHITE HOUSE OFFICE.—(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 White House Office to carry out the duties of the White House Office under this Title $5,000,000 for each of fiscal years 2003 through 2011, to remain available through September 30, 2011.

(b) DEPARTMENT OFFICE.—(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 Department 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 Department Office to carry out the duties of the Department Office under this title $4,750,000,000 for the period for fiscal years 2003 through 2011, to remain available through September 30, 2011.

(c) REVIEW BOARD.—(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 Review Board 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 Review Board to carry out the duties of the Review Board under this title $5,000,000 for each of fiscal years 2003 through 2011, to remain available until expended.

(d) ADDITIONAL AMOUNTS.—Amounts authorized to be appropriated under this section shall be in addition to—

(1) 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

(2) amounts made available under other provisions of this Act for energy research and development.

Subtitle C—Science and Technology Policy

SEC. 1031. GLOBAL CLIMATE CHANGE IN THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY.

Sec. 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. 1032. ESTABLISHMENT OF ASSOCIATE DIRECTOR FOR GLOBAL CLIMATE CHANGE.

Section 203 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601(b)) is amended—

(1) by striking "four" in the second sentence and inserting "five"; and

(2) by striking "title."

February 27, 2002
Memorandum of Agreement entered into by a covered entity.

(b) A person or private entity, to the extent that the entity operates in the United States.

(5) FACILITY.—The term ‘facility’ means all buildings, structures, and installations located on any one or more of contiguous or adjacent property or properties, or a fleet of 20 or more transportation vehicles, under common ownership or control.

(6) GREENHOUSE GAS.—The term ‘greenhouse gas’ means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perfluorocarbons; and

(F) sulfur hexafluoride.

(7) INDIRECT EMISSIONS.—The term ‘indirect emissions’ means greenhouse gas emissions that are a consequence of the activities of an entity but that are emitted from a facility owned or controlled by another entity and are not already reported as direct emissions by a covered entity.

(b) SEQUESTRATION.—The term ‘sequestration’ means the capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere, including through a biological or geologic method such as reforestation or an underground reservoir.

(a) Not later than one year after the date of enactment of this title, the President, acting through the Chairman of the Council on Environmental Quality, shall direct the Department of Energy, the Department of Commerce, the Department of Agriculture, the Department of Transportation and the Environmental Protection Agency, to enter into a Memorandum of Agreement that will—

(1) recognize and maintain existing statutory and regulatory authorities, functions and programs that collect data on greenhouse gases from the atmosphere that are necessary for the operation of the National Greenhouse Gas Database;

(2) distribute additional responsibilities and activities identified by this title to Federal departments or agencies according to their mission and expertise; and

(3) provide for the comprehensive collection and analysis of data on the emissions related to product use, including fossil fuel and energy consuming appliances and vehicles.

(b) The Memorandum of Agreement entered into under subsection (a) shall, at a minimum, retain the following functions for the respective departments and agencies:

(1) The Department of Energy shall be primarily responsible for the development of measurement standards for emissions monitoring and verification technologies and methods to ensure that there is a consistent and technically accurate record of emissions, reductions and atmospheric concentrations of greenhouse gases for the database under this title.

(2) The Department of Commerce shall be primarily responsible for the development of a registry of greenhouse gas emissions and a registry of greenhouse gas emissions reductions.

(3) The Environmental Protection Agency shall be primarily responsible for emissions monitoring, measurement, verification and data collection, pursuant to this title and existing authorities, and for coordinating with the other covered entities.

(c) The final Memorandum of Agreement shall not be subject to judicial review.
(E) The first report shall be required to be submitted not later than April 30 of the fourth year after the date of enactment of this title.

(2) AUTHORITY FOR REPORTING.—

(A) An entity shall not be required to report under paragraph (1) unless:

(i) the total greenhouse gas emissions of at least one facility owned or controlled by the entity in the calendar year for reporting exceed 10,000 metric tons of carbon dioxide equivalent, or a greater level as determined by rule; or

(ii) the entity emits greenhouse gases produced, distributed or imported by the entity exceeds 10,000 metric tons of carbon dioxide equivalent, or a greater level as determined by rule.

(B) the final rule promulgated under section 1104(c) and subsequent revisions to that rule with respect to the threshold for reporting in subparagraph (A) shall capture information on no less than 75 percent of anthropogenic greenhouse gas emissions from entities—

(1) that exceed 10,000 metric tons of carbon dioxide equivalent in the calendar year for reporting; and

(2) with respect to the preceding calendar year and 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 subsection (d); and

(v) product use phase emissions; and

(B) with respect to greenhouse gas emissions reductions activities carried out since 1990 and verified according to rules implementing subparagraphs (A) and (B) of this subsection and submitted to the Designated Agency or Agencies before the date that is three years after the date of enactment of this title, those reductions that have been reported or submitted by an entity under section 1605(b) of the Energy Policy Act of 1992 (20 U.S.C. 13385(b)) or under other Federal or State voluntary greenhouse gas reduction programs.

(5) TYPES OF ACTIVITIES.—Under paragraph (4), an entity may report projects that reduce greenhouse gas emissions or sequester a greenhouse gas, including—

(A) fuel switching;

(B) energy efficiency improvements;

(C) use of renewable energy;

(D) use of combined heat and power systems;

(E) management of cropland, grassland, and grazing land;

(F) forestry activities that increase forest carbon stocks or reduce forest carbon emissions;

(G) carbon capture and storage;

(H) methane recovery; and

(I) greenhouse gas offset investments.

(6) PROVISION OF VERIFICATION INFORMATION BY REPORTING ENTITIES.—Each reporting entity shall provide information sufficient for the Designated Agency or Agencies to verify, in accordance with the measurement and verification criteria 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 additional voluntary report, represents—

(1) actual reductions in direct greenhouse gas emissions relative to historic emission levels and net of any increases in direct emissions and indirect emissions described in clauses (B) and (C) of paragraph (1)(B), or

(2) actual increases in net sequestration.

(7) INDEPENDENT THIRD-PARTY VERIFICATION.—A reporting entity may—

(A) use an independent third-party verification; and

(B) present the results of the third-party verification to the Designated Agency or Agencies in carrying out paragraph (1).

(8) DATA QUALITY.—The rule under subsection (c) shall establish procedures and protocols needed to—

(A) prevent the reporting of some or all of the same greenhouse gas emissions or emission reductions by more than one reporting entity;

(B) provide for corrections to errors in data submitted to the database;

(C) provide for adjustment to data by reporting entities that have had a significant organizational change (including mergers, acquisitions, and divestiture), in order to maintain an even base among data in the database over time;

(D) provide for adjustments to reflect new technologies or methods for measuring or calculating emissions and

(E) account for changes in registration of ownership of emissions reductions resulting from a voluntary private transaction between reporting entities.

(9) AVAILABILITY OF DATA.—The Designated Agency or Agencies shall ensure that information in the database is published, accessible to the public, and made available in electronic format on the Internet, except in cases where the Designated Agency or Agencies determine that publishing or making available the information would disclose information vital to national security.

(10) DATA INFRASTRUCTURE.—The Designated Agency or Agencies shall ensure that the database established by this Act shall utilize and is integrated with existing Federal, regional, and state greenhouse gas data collection and reporting systems to the maximum extent possible and avoid duplication of such systems.

(11) ADDITIONAL ISSUES TO BE CONSIDERED.—

In promulgating the rules for and implementing the programs created pursuant to this title, and changes to the law that achieve a consistent and technically accurate record of greenhouse gas emissions, reductions, and atmospheric concentrations and the other provisions of this title.

(b) The Designated Agency or Agencies shall enter into an agreement with the National Academy of Sciences to review the scientific methods, assumptions and standards used by the Agency or Agencies implementing this title, and to report to Congress recommendations of improvements for the programs created pursuant to this title.

(c) An appropriations act may include funds necessary to carry out the activities and programs included in 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;
The Department of Energy Organization Act

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—

(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 multi-purpose 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 and technology applications, including activities undertaken pursuant to section 7 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901 et seq.) or other law.

(7) UNIVERSITY.—The term "university" means a public or private institution of higher education, including a community college.

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 multi-purpose 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 and technology applications, including activities undertaken pursuant to section 7 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901 et seq.) or other law.

(7) UNIVERSITY.—The term "university" means a public or private institution of higher education, including a community college.

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.12301 et seq.), or any other Act under which the Secretary is authorized to carry out such programs.

Subtitle A—Energy Efficiency

SEC. 1211. ENHANCED ENERGY EFFICIENCY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall carry out 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), advanced construction 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 steel, paper, and transport 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) U.S. agriculture.

(3) TRANSPORTATION ENERGY EFFICIENCY.—The goal of the transportation energy efficiency program shall be to develop, in partnership with industry, enabling 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 two 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 distributed, generation and combined heat and power by developing technologies by 2010 that achieve—

(A) electricity generation efficiencies greater than 40 percent on-site generation technologies based upon natural gas, including fuel cells, microturbines, reciprocating engines and industrial gas turbines;

(B) combined cycle 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) removal of carbon dioxide emissions by at least 40 percent; and

(F) packaged system integration at end user facilities providing complete services in generating, cooling, electricity and air quality.

(5) PROGRAM IMPLEMENTATION.—The program shall be to:

(A) develop and demonstrate technologies that significantly reduce energy-related emissions;

(B) reduce the cost of energy efficiency technologies; and

(C) enhance energy efficiency technology development, demonstration, and test facilities.

(6) FEDERAL ENERGY MANAGEMENT PROGRAM.—The goals of the Federal Energy Management program shall be to:

(A) make Federal facilities more energy efficient; and

(B) reduce energy use that results from the operation of Federal facilities.

(b) PROGRAM IMPLEMENTATION.—The goals of the energy efficiency program shall be to:

(A) carry out the objectives described in subsection (a); and

(B) develop and demonstrate technologies that significantly reduce energy-related emissions; and

(C) reduce the cost of energy efficiency technologies.
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) ELIGIBILITY.—The consortium shall be funded by—

(A) participation fees; and
(B) grants provided under subsection (e)(1).

(4) REQUIREMENTS.—The Secretary shall make grants available under subsection (e)(1) only to consortia 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 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 the planning 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) 4 members from universities, national laboratories, industry, and nonfederally funded laboratories, each individual shall have expertise in advanced solid-state lighting and technologies based on white light emitting diodes; and
(B) 3 members from a list of not less than 6 nominees from industry submitted by the consortium.

(3) STUDY.—

(A) 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) AMOUNT.—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 shall, in collaboration with the Secretary, shall report annually operating and performance objectives, develop technology roadmaps, and recommend research and development priorities for the initiative. The Secretary shall have authority to 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).}

(b) 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 accuracy of the consortium's accounting, contracts, and other agreements monitored by the consortium.

(b) 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 semiconductor device 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 semiconductor package and delivery system that produces white light using externally applied voltage.

(5) PLANNING BOARD.—The term “planning board” means the planning board established under subsection (d).

(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. RADIANT EFFICIENCY.

(a) ESTABLISHMENT.—The Secretary shall, in cooperation with the Secretaries of Trans- portation and Defense, and the Administrator of the Environmental Protection Agency, establish a public-private research partnership involving the federal government, railroad carriers, locomotive 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 $60,000,000 for fiscal year 2003 and $70,000,000 for fiscal year 2004.
(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 to connections to advanced transmission technologies that are being or have been field tested;
(D) the use of new transmission technologies, including composite conductor materials, advanced protection devices, controllers, and other cost-effective methods and technologies;
(E) use of superconducting materials in power delivery equipment such as transmission and distribution cables, transmitters, 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—
(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; and
(2) the combined use of wind power and coal gasification technologies.

(d) COORDINATION PLAN FOR 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) $600,000,000 for fiscal year 2004;
(3) $583,000,000 for fiscal year 2005; and
(4) $733,000,000 for fiscal year 2006.

SEC. 1222. BIOENERGY PROGRAMS.

(a) PROGRAM DIRECTION.—The Secretary shall—
(1) 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 bioenergy systems—
(A) $60,300,000 for fiscal year 2003;
(B) $66,125,000 for fiscal year 2004;
(C) $76,000,000 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) $37,500,000 for fiscal year 2003;
(B) $66,125,000 for fiscal year 2004;
(C) $60,300,000 for fiscal year 2005; and
(D) $86,100,000 for fiscal year 2006.

(b) TECHNICAL PANEL REVIEW.—Section 106 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 subparagraphs (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.

SEC. 1223. HYDROGEN RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—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.

(b) TECHNICAL PANEL REVIEW.—Section 106 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12402) is amended by striking paragraphs (2) and (3) and inserting the following:
‘‘(2) to develop methods of hydrogen production that minimize production of greenhouse gases, including—
‘‘(A) efficient production from non-renewable resources; and
‘‘(B) cost-effective production from renewable resources such as biomass, geothermal, wind, and solar energy; and
‘‘(3) to foster the use of hydrogen as a major energy source, including developing the use of hydrogen—
‘‘(A) isolated villages, islands, and communities in which other energy sources are not available or are very expensive; and
‘‘(B) foreign developments, 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. 12401) 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) 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.

SEC. 1224. INTEGRATED BIOENERGY RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall carry out the Integrated Biopower Energy Systems Program under section 1222(b)(1) in an interagency program described in subsection (b), which may include—
(1) development of biorefineries to produce advanced ethanol and vegetable oil fuels from agricultural and other non-Federal feedstocks, and from municipal solid waste.

(b) AUTHORIZATION OF APPROPRIATIONS.—
(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall carry out the program described in paragraph (1) in an interagency program described in subsection (b), which may include—
(2) $114,000,000 for fiscal year 2003; and
(3) $125,000,000 for fiscal year 2004.
(2) REDUCTION OR ELIMINATION.—The Secretary may propose to reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for analyses, for economic analyses, outreach activities, and educational programs, if the Secretary determines that such reduction or elimination is necessary to achieve the objectives of this Act.

SEC. 1225. INTEGRATED BIOMASS RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall carry out an interagency program described in subsection (b), which may include—
(1) $100,000,000 for fiscal year 2003; and
(2) $112,000,000 for fiscal year 2004.
(2) REDUCTION OR ELIMINATION.—The Secretary may propose to reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for analyses, for economic analyses, outreach activities, and educational programs, if the Secretary determines that such reduction or elimination is necessary to achieve the objectives of this Act.

SEC. 1226. BIOMASS ENERGY SYSTEMS.

(a) PROGRAM DIRECTION.—The Secretary shall carry out an interagency program described in subsection (b), which may include—
(1) $65,000,000 for fiscal year 2003; and
(2) $73,000,000 for fiscal year 2004.
(2) REDUCTION OR ELIMINATION.—The Secretary may propose to reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for analyses, for economic analyses, outreach activities, and educational programs, if the Secretary determines that such reduction or elimination is necessary to achieve the objectives of this Act.

SEC. 1227. INTEGRATED BIOMASS RESEARCH AND DEVELOPMENT.

(a) PROGRAM DIRECTION.—The Secretary shall carry out an interagency program described in subsection (b), which may include—
(1) $70,000,000 for fiscal year 2003; and
(2) $79,000,000 for fiscal year 2004.
(2) REDUCTION OR ELIMINATION.—The Secretary may propose to reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for analyses, for economic analyses, outreach activities, and educational programs, if the Secretary determines that such reduction or elimination is necessary to achieve the objectives of this Act.

SEC. 1228. BIOMASS ENERGY SYSTEMS.

(a) PROGRAM DIRECTION.—The Secretary shall carry out an interagency program described in subsection (b), which may include—
(1) $66,125,000 for fiscal year 2003; and
(2) $66,125,000 for fiscal year 2004.
(2) REDUCTION OR ELIMINATION.—The Secretary may propose to reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for analyses, for economic analyses, outreach activities, and educational programs, if the Secretary determines that such reduction or elimination is necessary to achieve the objectives of this Act.

SEC. 1229. BIOMASS ENERGY SYSTEMS.

(a) PROGRAM DIRECTION.—The Secretary shall carry out an interagency program described in subsection (b), which may include—
(1) $60,300,000 for fiscal year 2003; and
(2) $58,300,000 for fiscal year 2004.
(2) REDUCTION OR ELIMINATION.—The Secretary may propose to reduce or eliminate the cost-sharing requirement under subparagraph (A) for the proposed research and development project, including for analyses, for economic analyses, outreach activities, and educational programs, if the Secretary determines that such reduction or elimination is necessary to achieve the objectives of this Act.
(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 (a)—

(i) by striking “(b) MEMBERSHIP.—The technical panel shall be appointed” and inserting the following:

“(b) MEMBERSHIP.—There shall be appointed a technical panel whose term expires may be reappointed; and

(ii) 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 (c)—

(i) in the matter preceding paragraph (1), by striking “the following”;

(ii) in paragraph (1), by striking “and” at the end;

(iii) in paragraph (2), by striking the period at the end and inserting “; 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 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).

(b) 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 by striking section 202 and inserting the following:

(2) in subsection (a), by striking “projects proposed” and inserting “projects proposed”;

(i) by striking “gas is” and inserting “gas is”;

(ii) by striking “basis” and inserting “basis”;

(iii) by striking “(c)(2)” by striking “systems described in subsections (a)(1) and (a)(2)” and inserting “projects proposed”; and

(iv) by striking “(d)(2)” 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. 12407) 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. 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 agencies for participation by the agencies in demonstrations at facilities administered by the agencies, with the aim of integrating high efficiency hydrogen and 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 and information technology developed under this title among industry, academia, and Federal, State, and local governments to help the United States economy obtain the economic benefits of the information and technology developed under this title.

"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 approach to fossil energy research, development, demonstration, and technology deployment program to enhance fossil energy resources.

(b) PROGRAM GOALS.—

(1) CORE Fossil RESEARCH AND DEVELOPMENT.—The goals of the core fossil research and development program shall be to reduce the threat to the environment from fossil energy 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 program shall be to develop technologies to—

(A) extract methane hydrates in coastal waters of the United States;

(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 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—

"(1) $485,000,000 for fiscal year 2003;

"(2) $508,000,000 for fiscal year 2004;

"(3) $522,000,000 for fiscal year 2005; and

"(4) $558,000,000 for fiscal year 2006.

(2) LIMITS ON USE OF FUNDS.—

(A) None of the funds authorized in paragraph (1) may be used for—

(Fossil energy environmental restoration;
SEC. 1232. POWER PLANT IMPROVEMENT INITIATIVES.

(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) 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 an intermediate thermal efficiency of—

(A) 45 percent for coal of more than 9,000 Btu;
(B) 44 percent for coal of 7,000 to 9,000 Btu; and
(C) 42 percent for coal of less than 7,000 Btu.

(3) 2020 EFFICIENCY MILESTONES.—The milestones shall be designed to achieve by 2020 efficient thermal efficiency—

(A) 60 percent for coal of more than 9,000 Btu;
(B) 59 percent for coal of 7,000 to 9,000 Btu; and
(C) 57 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 guidelines 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 generating 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 sequestration of greenhouse gases, 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 the technologies that are in operation or that have been demonstrated by the date of enactment of this subtitle, and

(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 electric power generation, use as a chemical feedstock, and use as a transportation fuel.

(e) Authorization of appropriations.—

(1) In general.—The Secretary is 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; or
(B) gasification technologies, including gasification combined cycle, gasification fuel cells, gasification co-production, or hybrid gasification co-production; or
(C) other technology either by itself or in conjunction with other technologies 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 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 $13,000,000 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 Exploration and Production Technologies 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 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 in section 501(c)(3) of the Internal Revenue Code of 1986.

(6) MANAGING CONSORTIUM.—The term “managing consortium” means an entity that—

(A) exists as of the date of enactment of this section;

(B) is an organization described in section 501(c)(3) of the Internal Revenue Code of 1986; and

(C) is exempt from taxation under section 501(a) of that Code;

(D) is experienced in planning and managing programs in natural gas or other petroleum exploration, development, and demonstration; and

(E) 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).

(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 demonstration 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 monitoring 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 7 members appointed by the Secretary that—

(i) have extensive operational knowledge of and experience in the natural gas and other petroleum exploration and production industries; 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 4 members shall have extensive knowledge of ultra-deepwater resource exploration and production technologies;

(ii) at least 3 members shall have extensive knowledge of unconventional resource exploration and production technologies;

(iii) 1 member shall have extensive knowledge of water resources of the United States;

(iv) 1 member shall have extensive knowledge of unconventional resource exploration and production technologies; and

(v) shall conduct an energy research, development and demonstration program to enhance national energy security and protect the environment.

(4) COMPENSATION.—A member of the advisory committee shall serve without compensation but shall receive travel expenses, subsistence, and per diem in lieu of subsistence, in accordance with applicable provisions under subchapter V 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.

(B) COMPONENTS OF APPLICATION.—An application for an award for a demonstration project shall describe with specificity any intended commercial applications of the technology to be demonstrated.

(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.

(1) AUDITING.—

(A) 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.

(B) REPORTS.—The auditor retained under paragraph (1) shall submit to the Secretary and the Congress a report on the management of funds under this program, which report shall include the findings of the auditor under paragraph (1); and

(C) 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 shall conduct a comprehensive five-year program for research, development and demonstration to improve the reliability, efficiency, safety and integrity of the natural gas transportation and distribution infrastructure and for distributed energy resources (including microturbines, fuel cells, advanced hydrogen-generating systems, 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 3107 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.

Subtitle D—Nuclear Energy

SEC. 1241. ENHANCED NUCLEAR ENERGY RESEARCH.

(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—

(i) support research related to existing United States nuclear plants to extend their lifetimes and increase their reliability while optimizing their current operations for greater efficiency and safety;

(ii) 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 nuclear fuels, minimization of generation of radioactive materials, improved nuclear waste management technologies, and improved instrumentation science and technology;

(iii) 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 reactor training reactors at universities in conjunction with industry; and

(C) completing the conversion of existing training reactors to ensure that future nuclear engineers and scientists have access to such reactors for new investigative uses;

(iv) maintain a national capability and infrastructure to produce research reactors and ensure a well trained cadre of nuclear medicine specialists in partnership with industry; and

(v) ensure that our nation has adequate capability to power future satellite and space missions; and

(vi) 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 reactor training reactors at universities in conjunction with industry; and

(C) completing the conversion of existing training reactors to ensure that future nuclear engineers and scientists have access to such reactors for new investigative uses;

(v) maintain a national capability and infrastructure to produce research reactors and ensure a well trained cadre of nuclear medicine specialists in partnership with industry; and

(vi) ensure that our nation has adequate capability to power future satellite and space missions; and

(b) DUTIES.—In carrying out the program under this section (b) through (e), as well as nuclear facilities management and program direction—

(A) $212,000,000 for fiscal year 2006.

(B) $207,000,000 for fiscal year 2005; and

(C) $202,000,000 for fiscal year 2004;

SEC. 1242. UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.

(a) ESTABLISHMENT.—The Secretary shall support a program to maintain the nation’s high research investment 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) support universities in recruiting and retaining new faculty in the nuclear sciences and engineering through a Junior Faculty Research Initiation Grant Program;

(2) 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) enhance nuclear safety and security through a cooperative program by the Department of Energy and industry 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 to support the performance of research and development necessary to make an informed technical decision regarding the most promising candidates. The study shall examine advanced proliferation-resistant and passive safety reactor designs, new reactor designs with higher efficiency, lower cost and improved safety, proliferation-resistant and high burn-up fuels, mini-mization of generation of radioactive materials, improved nuclear waste management, and the development of a conceptual design for integrated management of nuclear-waste management. 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 DIRECTOR.—The Secretary, acting through the Office of Science, shall—
(1) conduct a comprehensive program of fundamental research, including research on carbon capture and storage technologies, 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 experimental mission of the Office of Science; and
(3) coordinate research and development activities with the Office of Energy Efficiency and Renewable Energy.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized 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.

(c) FACILITIES.—Facilities under paragraph (1) may include—
(1) a Nanoscale Science and Engineering Research Center;
(2) a Nanoscale Science and Engineering Research Institute; and
(3) a Nanoscale Science and Engineering Research Laboratory.

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 nanotechnology consistent with the Department’s statutory authorities and in collaboration with other Federal agencies.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1252(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 1463, the program shall provide financial assistance for the development of methods and techniques to improve the availability of nuclear powerplants by 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 to support the performance of research and development necessary to make an informed technical decision regarding the most promising candidates. The study shall examine advanced proliferation-resistant and passive safety reactor designs, new reactor designs with higher efficiency, lower cost and improved safety, proliferation-resistant and high burn-up fuels, mini-mization of generation of radioactive materials, improved nuclear waste management, and the development of a conceptual design for integrated management of nuclear-waste management. 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 DIRECTOR.—The Secretary, acting through the Office of Science, shall—
(1) conduct a comprehensive program of fundamental research, including research on chemical sciences, 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 experimental mission of the Office of Science; and
(3) coordinate research and development activities with the Office of Energy Efficiency and Renewable Energy.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized 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.

(c) FACILITIES.—Facilities under paragraph (1) may include—
(1) a Nanoscale Science and Engineering Research Center;
(2) a Nanoscale Science and Engineering Research Institute; and
(3) a Nanoscale Science and Engineering Research Laboratory.

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 nanotechnology consistent with the Department’s statutory authorities and in collaboration with other Federal agencies.

(b) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1252(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 1463, the program shall provide financial assistance for the development of methods and techniques to improve the availability of nuclear powerplants by 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 to support the performance of research and development necessary to make an informed technical decision regarding the most promising candidates. The study shall examine advanced proliferation-resistant and passive safety reactor designs, new reactor designs with higher efficiency, lower cost and improved safety, proliferation-resistant and high burn-up fuels, mini-mization of generation of radioactive materials, improved nuclear waste management, and the development of a conceptual design for integrated management of nuclear-waste management. Not later than December 31, 2002, the Secretary shall submit to Congress a report describing the results of the study.
NATIONAL COMPUTING PROGRAMS.—The scientific and technical community, in consultation 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) $25,000,000 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) 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 a plan 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, equipment, and infrastructure are utilized with appropriate measurements and control tools;

(B) to ensure a strengthened fusion science theoretical research 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 fusion burning plasma experiments referred to in paragraph (1); 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) 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 national energy program, excluding 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 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(b) for fiscal year 2003, $355,000,000 are authorized for fiscal year 2003 for activities under this section and to develop the research program under this section.

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 effects 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 non-traditional assumptions;

(3) incident tracking and trend analysis tools to assess the severity of threats and reported incidents to the energy infrastructure; and

(4) integrated multi-sensor, 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) NATIONAL COORDINATION.—The program under this section shall cooperate with Departmental programs to promote regional coordination under section 102 of the Atomic Energy Act, to ensure that the technologies and assessments developed by the program are transferred in a timely manner to State and local agencies, and to the energy industry.

(d) COORDINATION WITH INDUSTRY RESEARCH ORGANIZATIONS.—The Secretary may enter into grants, contracts, and cooperative agreements with industry 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) $26,000,000 for fiscal year 2006.

SEC. 1262. PIPELINE INTEGRITY, SAFETY, AND RELIABILITY RESEARCH AND DEVELOPMENT.

(a) IN GENERAL.—The Secretary shall carry out a research, development, demonstration and technology deployment program for the purpose of developing accelerated cooperative program of research and development to ensure the integrity of natural gas and hazardous liquid pipelines. This research and development program shall include materials inspection techniques, risk assessment methodology, and information systems survey.

(b) PROGRAM SCOPE.—The program of the cooperative research program shall be to promote research and development to—

(1) improve pipeline reliability and service life for existing pipelines;

(2) expand capabilities of internal inspection devices to identify and accurately measure defects and anomalies;

(3) develop inspection techniques for pipelines that cannot accommodate the internal inspection devices available on the date of enactment of this Act; and

(4) develop innovative techniques to measure the structural integrity of pipelines to prevent pipeline failures.

(c) REQUIREMENTS.—The Secretary shall provide for in the program agreements with industry research organizations, universities, and State and local agencies to promote inclusion of industry research organizations, universities, and State and local agencies to promote inclusion of research and development activities in existing and potential cooperative research and development programs.

(d) COORDINATION WITH INDUSTRY RESEARCH ORGANIZATIONS.—The Secretary may enter into grants, contracts, and cooperative agreements with industry research organizations to develop materials inspection techniques, risk assessment methodology, and information systems survey.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary for the purpose of carrying 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) $26,000,000 for fiscal year 2006.
Sec. 1301. Program Goals.

Title XIII—Climate Change-Related Research and Development

Title XIII

Subtitle A—Department of Energy Programs

Sec. 1301. Program Goals.

Sec. 1302. Department of Energy Global Change Science Research.

“(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) 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; and

(D) develop and establish baseline methods for measuring the quantities of carbon and other greenhouse gases sequestered; and

(E) 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) NATIONAL RESOURCES CONSERVATION SERVICE.—The Secretary of Agriculture, acting through the Cooperative State Research, Education, and Extension 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.

(5) COOPERATIVE STATE RESEARCH EXTENSION AND EDUCATION SERVICE.—

(A) IN GENERAL.—The Secretary of Agriculture may designate not more than 2 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).

(B) ELIGIBLE CONSORTIUM PARTICIPANTS.—Entities eligible to participate in a consortium include—

(A) land grant colleges and universities;

(B) private, nonprofit organizations;

(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 1 or 2 consortia under this section, the Secretary 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 in a fiscal year.

(5) STANDARDS OF PRECISION.—

(A) CONFERENCE.—Not later than 3 years after the date of enactment of this Act, 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) design 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, Education, and Extension 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 experts, 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 which use the monitoring programs developed under paragraph (1) help to demonstrate the feasibility of methods of measuring, verifying, and monitoring—

(i) changes in carbon content and other parameters 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) PROJECT FUNDING.—Not more than 10 projects under paragraph (A) may be approved in conjunction with applied research projects under section 131(b) until benchmark measurement and assessment standards are established under section 131(d).

(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.

(c) 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 agricultural practices and products. Ranchers may better understand the global implications of the activities of farmers and ranchers.

(d) 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).

Subtitle C—Clean Energy Technology Exports Program

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, the Administrator of the U.S. Agency for International Development shall jointly establish an Interagency Working Group on Clean Energy Technology Exports. The Interagency Working Group shall focus on opening and expanding energy markets and transferring clean energy technology to the developing countries, countries in transition, and other partner countries 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 of the agencies under paragraph (1) and shall also include representatives from the Departments of State, the Department of 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-buoyant mechanisms to promote first adoption of the technology;

(C) examine relevant trade, tax, international, and other policy issues to assess the ways in which these markets and improve U.S. clean energy technology exports in support of the following areas:

(i) enhancing energy innovation and co-operation among the sector and market reform, capacity building, and financing measures;

(ii) improving energy end-use efficiency technologies 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 for the export and deployment of clean energy technology;

(E) monitor each agency’s progress towards meeting goals in the 5-year strategic plan; and

(F) make such reports 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 U.S. market, regional, and stakeholder challenges necessary to carry out the program; and

(H) recommend conditions and criteria that would help U.S. clean energy technologies, and the District of Columbia funds promote sound energy policies in participating countries while simultaneously opening their markets and exporting United States clean energy technology.

(c) FEDERAL SUPPORT FOR CLEAN ENERGY TECHNOLOGY TRANSFER.—Notwithstanding any other provision of law, the Secretary of State, in consultation with other federal agencies or government corporation carrying out an assistance program in support of the activities of United States persons in the export of clean energy technology to countries in transition, and other partner countries, shall, to the maximum extent practicable, the transfer of United States clean energy technology as part of that program.

(d) ANNUAL REPORT.—Not later than April 1 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—

(1) description of the Federal, international, and market opportunities for international development, demonstration, and deployment of clean energy technology; and

(2) the ways in which the distinct technological, financial, and market opportunities for international development, demonstration, and deployment of clean energy technology identified in the Interagency Working Group in that year, as well as any policy recommendations to improve the expansion of clean energy technology in the United States.

(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 multi-lateral 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. The Secretary of Commerce, in consultation with the Department of State, may use these funds to assist small businesses and other private sector entities in the United States, the District of Columbia, or political subdivisions thereof to engage in activities that support international energy deployment projects 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

(a) IN GENERAL.—Section 108 of the Energy Policy Act of 1992 (42 U.S.C. 13387) is amended by striking subsection (1) and inserting the following:

(1) INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM—

(1) DEFINITIONS.—In this subsection—

(A) ‘international energy deployment project’ means a project to construct an energy production facility outside the United States; and

(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 of energy produced when compared to the technology that would otherwise be implemented.

(b) 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 construction of energy production facilities outside the United States, and to carry out the requirements of this subsection.
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“(II) 20 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2010; 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—

(1) is submitted by a United States firm to the Secretary in a timely manner, in accordance with procedures established by the Secretary by regulation;

(2) uses technology that has been successfully developed or deployed in the United States;

(iii) meets the criteria of subsection (k);”;

(4) by striking the Secretary, with notice of the approval being published in the Federal Register; and

(5) complies with such terms and conditions as the Secretary establishes by regulation.

“(C) UNITED STATES.—For purposes of this paragraph, the term ‘United States’ means the States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

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

(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

(IV) 40 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

“(D) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term ‘qualifying international energy deployment project’ means an international energy deployment project that

(1) is submitted by a United States firm to the Secretary in a timely manner, in accordance with procedures established by the Secretary by regulation;

(2) uses technology that has been successfully developed or deployed in the United States;

(iii) meets the criteria of subsection (k);”;

(4) by striking the Secretary, with notice of the approval being published in the Federal Register; and

(5) complies with such terms and conditions as the Secretary establishes by regulation.

“(C) UNITED STATES.—For purposes of this paragraph, the term ‘United States’ means the States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

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

(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

(IV) 40 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

“(D) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term ‘qualifying international energy deployment project’ means an international energy deployment project that

(1) is submitted by a United States firm to the Secretary in a timely manner, in accordance with procedures established by the Secretary by regulation;

(2) uses technology that has been successfully developed or deployed in the United States;

(iii) meets the criteria of subsection (k);”;

(4) by striking the Secretary, with notice of the approval being published in the Federal Register; and

(5) complies with such terms and conditions as the Secretary establishes by regulation.

“(C) UNITED STATES.—For purposes of this paragraph, the term ‘United States’ means the States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

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

(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

(IV) 40 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

“(D) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term ‘qualifying international energy deployment project’ means an international energy deployment project that

(1) is submitted by a United States firm to the Secretary in a timely manner, in accordance with procedures established by the Secretary by regulation;

(2) uses technology that has been successfully developed or deployed in the United States;

(iii) meets the criteria of subsection (k);”;

(4) by striking the Secretary, with notice of the approval being published in the Federal Register; and

(5) complies with such terms and conditions as the Secretary establishes by regulation.

“(C) UNITED STATES.—For purposes of this paragraph, the term ‘United States’ means the States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

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

(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

(IV) 40 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

“(D) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term ‘qualifying international energy deployment project’ means an international energy deployment project that

(1) is submitted by a United States firm to the Secretary in a timely manner, in accordance with procedures established by the Secretary by regulation;

(2) uses technology that has been successfully developed or deployed in the United States;

(iii) meets the criteria of subsection (k);”;

(4) by striking the Secretary, with notice of the approval being published in the Federal Register; and

(5) complies with such terms and conditions as the Secretary establishes by regulation.

“(C) UNITED STATES.—For purposes of this paragraph, the term ‘United States’ means the States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

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

(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

(IV) 40 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.
SEC. 1342. CHANGES IN FINDINGS.
Section 2 (15 U.S.C. 2001) is amended—
(1) by striking “Weather and climate change” in subsection (2)(A) 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) methods to coordinate among Federal agencies, State, and local government entities and the academic community to ensure timely dissemination of climate information and services, both domestically and internationally.”.

SEC. 1344. 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 fiscal year 2003—
(1) $1,500,000 to the Department of Commerce to develop a National Ocean and Atmospheric Administration, $1,500,000 to the National Aeronautics and Space Administration, and $500,000 for the Pacific ENOSO Applications Center.

SEC. 1347. REPORTING ON TRENDS.
(a) ATOMICHEMIC 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.

(b) ANNUAL REPORTING.—The Secretary of Commerce shall submit to the Congress an annual report that identifies greenhouse emissions and trends on a local, regional, and national level. The annual report shall identify greenhouse gas measurement and reporting system established under subsection (a) and the registry established under section 1102.

(c) SYSTEM ELEMENTS.—The integrated ocean and coastal observing system shall include the following elements:
(1) A national 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.
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 technologies and observatories, including data management and dissemination.
(8) Public outreach and education.

SEC. 1356. AUTHORIZATION OF APPROPRIATIONS.

For development and implementation of an integrated ocean and coastal observation system under this title, including financial assistance provided to coastal ocean observing systems, there are authorized to be appropriated $225,000,000 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) striking “and” after the semicolon in paragraph (21),
(2) 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 sulphur hexafluoride; and”.

SEC. 1362. DEVELOPMENT OF NEW MEASUREMENT TECHNOLOGIES.

(a) In General.—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) soil carbon dioxide greenhouse gas emissions from transportation;
(3) greenhouse gas emissions from facilities or sources using remote sensing technology; and
(4) any other greenhouse gas emissions 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 redesigning 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 technology 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; and
(B) in establishing of a baseline reference point for future trading in greenhouse gases and the measurement of progress in emissions reduction.
“(c) Fiscal Year 2006.
“(1) In General.—In the case of fiscal year 2006—
(2) Material, Process, and Building Research.—The National Measurement Laboratories shall conduct research under this subsection that—
(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 that 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 materials, performance data on materials, artificial intelligence-aided design procedures for building subsystems and ‘smart buildings’, and improved monitoring 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 described in this section to establish a program to include specific calibration or test standards and related methods and protocols assembled to satisfy the needs for 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.

(a) Advanced Technology Program Competitions.—The Director of the National Institute of Standards and Technology, through the Advanced Technology Program, may hold a portion of the Institute’s competitions in thematic areas, selected after consultation with the appropriate Federal agencies, designed to develop and commercialize enabling technologies to address global climate change by significantly reducing greenhouse gas emissions and concentrations in the atmosphere.
(b) Manufacturing Extension Partnership Program for “Green” Manufacturing.—The Director of the National Institute of Standards and Technology, through the Manufacturing Extension Partnership Program for “Green” Manufacturing, may develop support for the implementation of new “green” manufacturing technologies and techniques by the more than 360,000 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, $450,000,000 for fiscal year 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 implications addressed to increments 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 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 developed under this Act and the National Climate Change and Adaptation Program for regional implications addressed to increments of greenhouse gases in the atmosphere 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.), regional vulnerability program to support activities 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
(3) to reduce threats to critical biological and ecological processes.

(d) Information and Technology.—The Secretary shall make available appropriate information and other technologies and products that will assist national, regional, State, and local efforts to reduce loss of life and property, and coordinate dissemination of the technologies.

(e) 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 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 minimize threats to 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.

(b) Information and Technology.—The Secretary shall make available appropriate information and other technologies and products that will assist national, regional, State, and local efforts to reduce loss of life and property, and coordinate dissemination of the technologies.

(c) Authorization of Appropriations.—There are authorized to be appropriated to the Secretary of Commerce $4,500,000 to implement the requirements of this section.
local governmental entities, conduct regional assessments of the vulnerability of coastal areas to hazards associated with climate change, sea level rise, and other geophysical changes. The Secretary may also establish, as warranted, longer term regional assessment programs. The Secretary may also consult with States and regions, including the Indian tribes, as appropriate in developing such regional assessments. In preparing the regional assessments, the Secretary shall consult with appropriate officials of local governments, and with States, regional, and coastal organizations conducting similar assessments. The Secretary shall provide financial assistance to coastal States with approved coastal zone management programs to develop and begin implementing coastal adaptation programs if the State makes to develop and begin implementing approved coastal zone management programs to address coastal areas to hazards associated with climate change, sea level rise, natural hazards, and coastal erosion and mapping, and specifically on Arctic regions and the Central, Western, and South Pacific regions. The regional assessments shall include an evaluation of—

(1) physical 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 of changes in abundance or distribution of economically important living marine resources.

(b) COASTAL ADAPTATION PLAN.—The Secretary, through the National Ocean Services, shall establish and maintain an electronic, Internet-accessible database of the results of each pilot project completed under section 1381.

SEC. 1384. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated $3,000,000 annually for regional assessments under subsection (a); $20,000,000 for fiscal year 2004; $20,000,000 for fiscal year 2005; and $20,000,000 for fiscal year 2006.

TITLE XIV—MANAGEMENT OF DOE SCIENCE AND TECHNOLOGY PROGRAMS

SEC. 1401. DEFINITIONS.

In this title:

(a) IN GENERAL.—The term ‘‘INSTRUMENTATION AND CONCEPTS FOR ASTRONOMY’’ means—

(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.

(2) $20,000,000 for fiscal year 2004;

(4) $20,000,000 for fiscal year 2005; and

(5) $20,000,000 for fiscal year 2006.

TITLE XIV—MANAGEMENT OF DOE SCIENCE AND TECHNOLOGY PROGRAMS

SEC. 1401. DEFINITIONS.

In this title:

(a) IN GENERAL.—The term ‘‘INSTRUMENTATION AND CONCEPTS FOR ASTRONOMY’’ means—

(iii) the economic impact of the project is important; and

(3) the economic impact of the project is important; and

(1) INSTRUMENTATION.—The term ‘‘INSTRUMENTATION AND CONCEPTS FOR ASTRONOMY’’ means—

(1) $37,500,000 for fiscal year 2003;

(b) PROJECTS.—The term ‘‘INSTRUMENTATION AND CONCEPTS FOR ASTRONOMY’’ means—

(1) $40,000,000 for fiscal year 2006.

TITLES XIII THROUGH XVI—USING SCIENTIFIC INVESTIGATIONS TO UNDERSTAND THE ENVIRONMENT
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(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) Los Alamos National 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) any 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 50 percent of the cost of the project directly and services required 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 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 services required 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 make any assumptions necessary to ensure that the commitment is not less than 50 percent of the cost of the project directly and services required to any demonstration or technology deployment activity. The Secretary shall also ensure that the commitments required under this section are sufficient to ensure that the project can be carried out in accordance with the project objectives.

SEC. 1404. MERIT REVIEW OF PROPOSALS. Awards of funds authorized under title XII, 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 shall 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 advisory committees chartered under the Federal Advisory Committee Act by the Office of Science to oversee research and development programs under that title.

(c) MEMBERSHIP.—Each advisory board under this section shall consist of experts drawn from industry, academia, federal laboratories, state, local, or tribal governments, as appropriate.

(d) MEETINGS AND PURPOSES.—Each advisory board shall meet at least semi-annually to review and advise on the progress made by the respective research, development, demonstration, and technology deployment programs. 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 MANAGING ADVISORY COMMITTEES ON SCIENCE AND TECHNOLOGY PROGRAMS. (a) EFFECTIVE TOP-LEVEL COORDINATION OF SCIENCE AND TECHNOLOGY PROGRAMS.—(1) 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 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; and

(B) oversee the Department's research and development programs in order to advise the Secretary with respect to any undesirable duplication or gaps in such programs; and

(C) advise the Secretary with respect to the well-being and management of the multi-purpose laboratories under the jurisdiction of the Department.

(4) The Under Secretary shall be compensated at the rate provided for level IV of the Executive Schedule under section 5314 of title 5, United States Code.

(e) There shall 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 5314 of title 5, United States Code.

(f) There shall be in the Department a Technology Transfer Coordinator, 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 Technology Transfer Coordinator shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

SEC. 1407. IMPROVED COORDINATION OF TECHNOLOGY TRANSFER ACTIVITIES. (a) TECHNOLOGY TRANSFER ADVISORY BOARD.—The Secretary shall appoint a Technology Transfer Coordinator to perform oversight of policy development and technology 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 Partnerships 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 policymakers and 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—

(1) stimulate the development of technology resources and policies to support departmental missions by—

(i) improving the ability of National Laboratories and single-purpose research facilities to leverage and benefit from commercial research, technology, products, processes, and services;

(ii) encouraging the exchange of scientific and technological expertise between National Laboratories and single-purpose research facilities and—

(A) institutions of higher education,

(B) technology-related business concerns,

(C) nonprofit institutions, and

(D) State, tribal, or local governments, that can support departmental missions at the National Laboratories or single-purpose research facilities;

(2) improve the capability of National Laboratories or single-purpose research facilities to leverage and benefit from commercial research, technology, products, processes, and services;

(3) encourage the use of commercial research, technology, products, processes, and services from the private sector, and which will support departmental missions at the National Laboratories or single-purpose research facilities;

(4) 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, market potential, management approach, resources, and project plan;

(B) the extent to which the project in-...

**SEC. 1409. SMALL BUSINESS ADVOCACY AND ASSISTANCE.**

(a) **SMALL BUSINESS ADVOCATE.**—The Secretary shall—

(1) stimulate small business concerns in the small business concerns; and

(2) encourage the use of commercial research, technology, products, processes, and services from the private sector, and which will support departmental missions at the National Laboratories or single-purpose research facilities; and

(b) **TECHNOLOGY-RELATED BUSINESS CONCERNS.**—The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(1) develops new technologies,

(2) transfers products to the public and policymakers and technology partners information about opportunities and procedures for technology transfer with the Department.

(2) TECHNOLOGY-RELATED BUSINESS CONCERNS. The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(1) develops new technologies,

(2) transfers products to the public and policymakers and technology partners information about opportunities and procedures for technology transfer with the Department.

(3) TECHNOLOGY-RELATED BUSINESS CONCERNS. The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(1) develops new technologies,

(2) transfers products to the public and policymakers and technology partners information about opportunities and procedures for technology transfer with the Department.

(4) TECHNOLOGY-RELATED BUSINESS CONCERNS. The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(1) develops new technologies,

(2) transfers products to the public and policymakers and technology partners information about opportunities and procedures for technology transfer with the Department.

(5) TECHNOLOGY-RELATED BUSINESS CONCERNS. The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(1) develops new technologies,

(2) transfers products to the public and policymakers and technology partners information about opportunities and procedures for technology transfer with the Department.

(6) TECHNOLOGY-RELATED BUSINESS CONCERNS. The term "technology-related business concern" means a for-profit corporation, company, association, firm, partnership, or small business concern that—

(1) develops new technologies,

(2) transfers products to the public and policymakers and technology partners information about opportunities and procedures for technology transfer with the Department.
(2) Socially and economically disadvantaged small business concerns.—The term ‘‘socially and economically disadvantaged small business concerns’’ has the meaning given in section 3(a)(18) of the Small Business Act (15 U.S.C. 637(a)(18)).

SEC. 1410. OTHER TRANSACTIONS. 
(a) IN GENERAL.—Section 616 of the Department of Energy Organization Act (42 U.S.C. 7266) is amended by adding at the end the following: 

(3)(A) The Secretary of Energy shall, in cooperation with—

(i) other Federal agencies; 

(ii) tribal governments; or 

(iii) recognized representatives of employees of national laboratory and a non-federal personnel 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). 

(b) TITULAR SMALL BUSINESS CONCERNS.—Within 90 days after the date of enactment of this title, the Secretary shall establish a program to support small business concerns that—

(i) are owned and controlled by individuals from socially and economically disadvantaged groups; and 

(ii) are eligible to participate in the Small Business Act (15 U.S.C. 637(a)(18)).

SEC. 1411. MOBILITY OF SCIENTIFIC AND TECHNICAL PERSONNEL. 
(a) WORKFORCE TRENDS.—

(1) MONITORING.—The Secretary shall establish a program to conduct a comprehensive study of the workforce trends in the energy industry and make such recommendations as the Secretary deems 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).

(b) STIPENDS FOR SCIENTIFIC AND TECHNICAL PERSONNEL.—The Secretary shall establish a program of fellowships to allow outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development and to institutions of higher education of their choice. In establishing a program under this section, the Secretary shall—

(i) consult with the National Academy of Sciences to—

A. conduct a study on the obstacles to accelerating the innovation cycle for energy technology, and 

(ii) report to the Congress recommendations for shortening the time of research, development, and deployment.

SEC. 1412. REPORT ON TECHNOLOGY READINESS AND BARRIERS TO TECHNOLOGY TRANSFER. 
(a) IN GENERAL.—The Secretary shall prepare and submit to Congress a report on the technology readiness and barriers to technology transfer, including the readiness of new technologies developed through projects funded under appropriations authorized under subtitles A through D of title XIV, and the existing barriers to the transfer of energy technologies developed under contracts, grants, or cooperative agreements.

(b) TECHNICAL WORKFORCE RECOMMENDATIONS.—The Secretary shall make recommendations for—

(i) identifying barriers to technology transfer and cooperative research and development agreements between the Department or a National Laboratory and a non-federal person; and 

(ii) making recommendations for administrative or legislative actions needed to reduce or eliminate such barriers.

(c) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1407, there are appropriated for—

(i) the Secretary; and 

(ii) other Federal entities, a total of not more than $500,000 for each fiscal year.

(d) AUTHORIZATION OF APPROPRIATIONS.—From amounts authorized under section 1407, there are appropriated for—

(i) the Secretary; and 

(ii) other Federal entities, a total of not more than $500,000 for each fiscal year.

SEC. 1501. WORKFORCE TRENDS AND TRAINEEHSHIP GRANTS. 
(a) WORKFORCE TRENDS.—

(1) MONITORING.—The Secretary shall establish a program of fellowships to allow outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development and to institutions of higher education of their choice. In establishing a program under this subsection, the Secretary shall—

(i) consult with the National Academy of Sciences to—

A. conduct a study on the obstacles to accelerating the innovation cycle for energy technology, and 

B. report to the Congress recommendations for shortening the time of research, development, and deployment.

SEC. 1502. 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 and to institutions of higher education of their choice. In establishing a program under this section, the Secretary shall—

(a) POSTDOCTORAL FELLOWSHIPS.—The Secretary shall establish a program of fellowships to allow outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development and to institutions of higher education of their choice. In establishing a program under this subsection, the Secretary shall consult with the National Academy of Sciences to—

A. conduct a study on the obstacles to accelerating the innovation cycle for energy technology, and 

B. report to the Congress recommendations for shortening the time of research, development, and deployment.

SEC. 1503. TRAINING GUIDELINES FOR ELECTRIC ENERGY INDUSTRY PERSONNEL. 
(a) MODEL GUIDELINES.—The Secretary shall, in cooperation with the National Institute for Occupational Safety and Health, the National Occupational Safety and Health Administration, and other appropriate agencies, develop model guidelines on training for electric energy industry personnel on the basis of past scientific or technical achievement and profile and intended accomplishment during the period of support. The Secretary shall submit a copy to the Congress no later than two years after the date of enactment of this title.

(b) CONTENT OF GUIDELINES.—The guidelines developed under subsection (a) shall include a list of—

(i) the electric energy industry sectors; 

(ii) the specific industries comprising each sector, including, but not limited to, those listed in section 1504(a)(2); 

(iii) the appropriate agencies or entities responsible for the development, implementation, and enforcement of the guidelines; and 

(iv) the time periods specified for the development, implementation, and enforcement of the guidelines.

(c) REPORT TO CONGRESS.—The Secretary shall, in cooperation with the National Institute for Occupational Safety and Health, the National Occupational Safety and Health Administration, and other appropriate agencies, develop model guidelines on training for electric energy industry personnel on the basis of past scientific or technical achievement and profile and intended accomplishment during the period of support. The Secretary shall submit a copy to the Congress no later than two years after the date of enactment of this title.

SEC. 1504. NATIONAL CENTER ON ENERGY MANAGEMENT AND BUILDING TECHNOLOGIES. 
(a) ESTABLISHMENT.—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—

(i) recognized representatives of employees in the heating, ventilating, and air conditioning industry; 

(ii) contractors that install and maintain heating, ventilation, and air conditioning systems and equipment;
DIVISION F—TECHNOLOGY ASSESSMENT AND STUDIES

TITLE XVI—TECHNOLOGY ASSESSMENT AND STUDIES

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 established 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 single member of the Senate, and a Director of the Office of Science and Technology Assessment Service.

SEC. 703. FUNCTIONS AND DUTIES.

The Service shall coordinate and develop information for Congress relating to the uses and application of existing 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 other House members; 

(2) the Board; or

(3) the Director.

SEC. 705. ADMINISTRATION AND SUPPORT.

The Director shall have full use of any apparatus, or personnel of any Federal agency, with or without reimbursement, for the purposes of the Service.

SEC. 706. AUTHORITY.

The Service shall have the authority, within the funds available, 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 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) 6 Members of the Senate, appointed by the President pro tempore of the Senate, from the majority party and 3 from the minority party;

(2) 6 Members of the House of Representatives, appointed by the Speaker of the House of Representatives, 3 from the majority party and 3 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 activities 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 one year after the date of enactment of this section and every five 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, 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 five 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).

(2) 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, and

(C) facilitate the expanded use of existing energy conservation technologies, and

(D) reduce the environmental impacts of emerging energy technologies and processes through transparent and flexible compliance methods.
SEC. 1702. ASSESSMENT OF DEPENDENCE OF HAWAII ON OIL.

(a) STUDY.—Not later than 60 days after the enactment of this Act, the Secretary of Energy shall initiate a study that assesses the economic risk posed by the dependence of Hawaii on oil as the principal source of energy.

(b) SCOPE OF THE STUDY.—The Secretary shall assess—

(1) the short- and long-term threats to the economy of Hawaii posed by insecure supply and volatile prices;

(2) the impact on availability and cost of refined petroleum products if oil-fired electric generation is displaced by other sources;

(3) the feasibility of increasing the contribution of renewable sources to the overall energy requirements of Hawaii; and

(4) the feasibility of using liquid natural gas as a source of energy to supplement oil.

(c) REPORT.—Not later than 300 days after the date of enactment of this section, the Secretary shall prepare, in consultation with appropriate agencies of the State of Hawaii, industry representatives, and citizen groups, and shall submit to Congress a report detailing the Secretary’s findings, conclusions, and recommendations. The report shall include—

(1) a detailed analysis of the availability, economics, infrastructure needs, and recommendations to increase the contribution of renewable energy sources to the overall energy requirements of Hawaii; and

(2) a detailed analysis of the use of liquid natural gas, including—

(A) the availability of supply,

(B) economics,

(C) environmental and safety considerations,

(D) technical limitations,

(E) infrastructure and transportation requirements,

(F) siting and facility configurations, including—

(i) onshore and offshore alternatives, and

(ii) environmental and safety considerations of both onshore and offshore alternatives.

(d) AUTHORIZATION OF APPROPRIATIONS.—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. 1703. STUDY OF SITING AN ELECTRIC TRANSMISSION SYSTEM ON AMTRAK RIGHT-OF-WAY.

(a) STUDY.—The Secretary of Energy shall conduct a study to assess 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 Northeastern Corridor between Washington, D.C., and New Rochelle, New York, including the Amtrak right-of-way between Philadelphia, Pennsylvania and Harrisburg, Pennsylvania.

(c) COVERAGE OF THE STUDY.—The study shall consider—

(1) alternative geographic configuration of a new electric 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) the 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 2104(e)(2) of title 49, United States Code.

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, distribution of electric energy; or

(ii) the production, refining, or storage of petroleum, natural gas, or petroleum products—

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 104 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2133 and 2134(b)).

(2) DEPARTMENT OF ENERGY, 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. 7122) 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 and 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 1201), 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 security; 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 energy 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 within the Department, to advise the Secretary on policies and programs related to the security of U.S. 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; and

(6) representatives of State, local, and tribal governments; and

(7) such other interests as the Secretary may deem appropriate.

(c) MEMBERS.—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 establish appropriate guidelines, or in cooperation with one or more standard-setting organizations, or similar organizations, to assist the development of industry best practices and standards for energy infrastructure security relating 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).

(2) COASTLINE.—The term “coastline” has the same meaning as the term “coastline” as defined in subsection (c) of the Submerged Lands Act (43 U.S.C. 1304(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 the 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) First sentence.—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 the coastal political subdivision closest to the geographic center of the leased tract or portion, as determined by the Secretary. For purposes of this section, including a certification by the Governor of an OCS Production State to offshore locations at which oil and gas are being produced.

(b) An OCS Production State shall be considered to be an activity that secures critical OCS energy infrastructure facilities from a natural threat.

(c) A Statement of findings shall be made by the Governor of an OCS Production State to the extent that the Governor determines to be appropriate.

(d) A review of the approved State plan; and

(e) A Federal security official and the appropriate Federal security officials, industry, Indian tribes, the scientific community, and other persons as appropriate.

(f) A copy of each approved State plan.

(g) A 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.

(1) 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.

(2) APPROVAL OF PLANS.—In consultation with appropriate Federal security officials and the Secretaries of Commerce and Energy, the Secretary shall—

(a) review the approved State plan; and

(b) submit to the Secretary any revised State plan.

(3) FAILURE TO HAVE PLAN APPROVED.—A State or OCS political subdivision that fails to have a plan approved shall be considered to have a coast that is the average length of the coastlines of all political subdivisions in the state.

(4) ALLOCATION OF AMOUNTS BY THE SECRETARY.—The Secretary shall provide to Congress a copy of each approved State plan.

(5) CONSULTATION AND PUBLIC COMMENT.—(a) The Governor of an OCS Production State shall consult with the State or OCS political subdivision that has the coastal political subdivision closest to the geographic center of the leased tract or portion to which the coastal political subdivision is designated by the Secretary. For purposes of this section, including a certification by the Governor of an OCS Production State to offshore locations at which oil and gas are being produced.

(b) The Secretary shall provide public comment on the plan to theextent that the Governor determines to be appropriate.

(6) PAYMENTS TO OCS POLITICAL SUBDIVISIONS.—(A) An OCS Production State’s allocation shall be calculated based on the ratio of the 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 five-year period. The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(B) The Secretary shall make the determination after the conclusion of the five-year period.

(C) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(D) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(E) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(F) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(G) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(H) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(I) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(J) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(K) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(L) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(M) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(N) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(O) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(P) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(Q) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(R) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(S) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

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(W) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(X) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(Y) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

(Z) The Secretary shall provide funds to OCS Production States on the basis of the OCS Production State’s allocation for the prior five-year period.

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the final resolution of any appeal regarding the use of the funds.

(3) 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 (b), the Secretary shall not disburse any further amounts under this section to that OCS Production State or OCS political subdivision unless the amounts used for the inconsistent purposes have been repaid or obligated for authorized uses.

(4) 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 appropriated to be used for the installation of natural threats; and

Natural Credit Union Administration

NATIONAL CREDIT UNION ADMINISTRATION

DEBORAH MATZ, OF NEW YORK, TO BE A MEMBER OF THE NATIONAL CREDIT UNION ADMINISTRATION BOARD FOR A TERM OF 10 YEARS, TO COME INTO EFFECT SEPTEMBER 26, 2002. (REAPPOINTMENT)

Central Intelligence

JOHN LEONARD BELGHERSON, OF VIRGINIA, TO BE AN ASSISTANT SECRETARY OF STATE, VICE SEVERN D. ANDERSON.

National Foundation on the Arts and Humanities

NAOMI SHIBAR YU OF TEXAS, TO BE A MEMBER OF THE NATIONAL COUNCIL ON THE HUMANITIES FOR A TERM EXPIRING JANUARY 26, 2006. (REAPPOINTMENT)

Central Intelligence

EDWARD A. LAFRETTY, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE UNDER TITLE 10, UNITED STATES CODE, SECTION 624. (REAPPOINTMENT)

To be major

EDWARD A. LAFRETTY, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE AND FOR REGULAR APPOINTMENT (IDENTIFIED BY AN ASTRISK (*) UNDER TITLE 10, UNITED STATES CODE, SECTIONS 624 AND 625).

To be lieutenant colonel

JOHN W. BAKER, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE UNDER TITLE 10, UNITED STATES CODE, SECTION 624.

To be major

JOHN W. BAKER, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE AND FOR REGULAR APPOINTMENT (IDENTIFIED BY AN ASTRISK (*) UNDER TITLE 10, UNITED STATES CODE, SECTIONS 624 AND 625).

To be lieutenant colonel

AMY J. ALTENSM, OF MICHIGAN, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE UNDER TITLE 10, UNITED STATES CODE, SECTION 624.

To be major

AMY J. ALTENSM, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE AND FOR REGULAR APPOINTMENT (IDENTIFIED BY AN ASTRISK (*) UNDER TITLE 10, UNITED STATES CODE, SECTIONS 624 AND 625).

To be lieutenant colonel

LORI J. CHERRY, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE UNDER TITLE 10, UNITED STATES CODE, SECTION 624.

To be major

LORI J. CHERRY, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE AND FOR REGULAR APPOINTMENT (IDENTIFIED BY AN ASTRISK (*) UNDER TITLE 10, UNITED STATES CODE, SECTIONS 624 AND 625).

To be lieutenant colonel

MICHHEL O. ADAMS, OF MICHIGAN, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE UNDER TITLE 10, UNITED STATES CODE, SECTION 624.

To be major

MICHHEL O. ADAMS, TO BE THE FOLLOWING NAMED OFFICER FOR APPOINTMENT TO THE GRADE INDICATED IN THE UNITED STATES AIR FORCE AND FOR REGULAR APPOINTMENT (IDENTIFIED BY AN ASTRISK (*) UNDER TITLE 10, UNITED STATES CODE, SECTIONS 624 AND 625).

To be lieutenant colonel

NOMINATIONS

Executive nominations received by the Senate February 27, 2002: