

AMENDMENT NO. **2917**

Calendar No. **65**

Purpose: To provide for the energy security of the Nation.

**IN THE SENATE OF THE UNITED STATES—107th Cong., 2d Sess.**

AMENDMENT NO. 2917 AS MODIFIED FURTHER

**S. 517**

To authorize funding the Department of Energy to enhance its mission areas through technology transfer and partnerships for fiscal years 2002 through 2006, and for other purposes.

March 5, 2002

Proposed by Mr. DASCHLE (for himself and Mr. BINGAMAN).

Viz:

1       Strike all after the enacting clause and insert the fol-  
2       lowing:

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Energy Policy Act of  
5       2002”.

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1 **DIVISION A—RELIABLE AND DI-**  
2 **VERSE POWER GENERATION**  
3 **AND TRANSMISSION**  
4 **TITLE I—REGIONAL**  
5 **COORDINATION**

6 **SEC. 101. POLICY ON REGIONAL COORDINATION.**

7 (a) STATEMENT OF POLICY.—It is the policy of the  
8 Federal Government to encourage States to coordinate, on  
9 a regional basis, State energy policies to provide reliable  
10 and affordable energy services to the public while mini-  
11 mizing the impact of providing energy services on commu-  
12 nities and the environment.

13 (b) DEFINITION OF ENERGY SERVICES.—For pur-  
14 poses of this section, the term “energy services” means—

15 (1) the generation or transmission of electric  
16 energy,

17 (2) the transportation, storage, and distribution  
18 of crude oil, residual fuel oil, refined petroleum prod-  
19 uct, or natural gas, or

20 (3) the reduction in load through increased effi-  
21 ciency, conservation, or load control measures.

1 **SEC. 102. FEDERAL SUPPORT FOR REGIONAL COORDINA-**  
2 **TION.**

3 (a) **TECHNICAL ASSISTANCE.**—The Secretary of En-  
4 ergy shall provide technical assistance to States and re-  
5 gional organizations formed by two or more States to as-  
6 sist them in coordinating their energy policies on a re-  
7 gional basis. Such technical assistance may include assist-  
8 ance in—

9 (1) assessing future supply availability and de-  
10 mand requirements,

11 (2) planning and siting additional energy infra-  
12 structure, including generating facilities, electric  
13 transmission facilities, pipelines, refineries, and dis-  
14 tributed generation facilities to meet regional needs,

15 (3) identifying and resolving problems in dis-  
16 tribution networks,

17 (4) developing plans to respond to surge de-  
18 mand or emergency needs, and

19 (5) developing renewable energy, energy effi-  
20 ciency, conservation, and load control programs.

21 (b) **ANNUAL CONFERENCE ON REGIONAL ENERGY**  
22 **COORDINATION.**—

23 (1) **ANNUAL CONFERENCE.**—The Secretary of  
24 Energy shall convene an annual conference to pro-  
25 mote regional coordination on energy policy and in-  
26 frastructure issues.

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

5           (3) STATE AND FEDERAL AGENCY COOPERA-  
6 TION.—The Secretary of Energy shall consult and  
7 cooperate with State and regional energy organiza-  
8 tions, the Secretary of the Interior, the Secretary of  
9 Agriculture, the Secretary of Commerce, the Sec-  
10 retary of the Treasury, the Chairman of the Federal  
11 Energy Regulatory Commission, the Administrator  
12 of the Environmental Protection Agency, and the  
13 Chairman of the Council on Environmental Quality  
14 in the planning and conduct of the conference.

15           (4) AGENDA.—The Secretary of Energy, in con-  
16 sultation with the officials identified in paragraph  
17 (3) and participants identified in paragraph (2),  
18 shall establish an agenda for each conference that  
19 promotes regional coordination on energy policy and  
20 infrastructure issues.

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

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

3 (B) Federal support for regional coordina-  
4 tion.

## 5 **TITLE II—ELECTRICITY**

### 6 **Subtitle A—Amendments to the Federal**

#### 7 **Power Act**

#### 8 **SEC. 201. DEFINITIONS.**

9 (a) DEFINITION OF ELECTRIC UTILITY.—Section  
10 3(22) of the Federal Power Act (16 U.S.C. 796(22)) is  
11 amended to read as follows:

12 “(22) ‘electric utility’ means any person or Fed-  
13 eral or State agency (including any municipality)  
14 that sells electric energy; such term includes the  
15 Tennessee Valley Authority and each Federal power  
16 marketing agency.

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

20 “(23) TRANSMITTING UTILITY.—The term  
21 ‘transmitting utility’ means an entity (including any  
22 entity described in section 201(f)) that owns or oper-  
23 ates facilities used for the transmission of electric  
24 energy in—

25 “(A) interstate commerce; or

1           “(B) for the sale of electric energy at  
2           wholesale.”.

3 **SEC. 202. ELECTRIC UTILITY MERGERS.**

4           Section 203(a) of the Federal Power Act (16 U.S.C.  
5 824b) is amended to read as follows:

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

9           “(A) sell, lease, or otherwise dispose of the  
10 whole of its facilities subject to the jurisdiction of  
11 the Commission, or any part thereof of a value in  
12 excess of \$1,000,000,

13           “(B) merge or consolidate, directly or indi-  
14 rectly, such facilities or any part thereof with the fa-  
15 cilities of any other person, by any means whatso-  
16 ever,

17           “(C) purchase, acquire, or take any security of  
18 any other public utility, or

19           “(D) purchase, lease, or otherwise acquire exist-  
20 ing facilities for the generation of electric energy or  
21 for the production or transportation of natural gas.

22           “(2) No holding company in a holding company sys-  
23 tem that includes a transmitting utility or an electric util-  
24 ity company shall purchase, acquire, or take any security  
25 of, or, by any means whatsoever, directly or indirectly,

1 merge or consolidate with a transmitting utility, an elec-  
2 tric utility company, a gas utility company, or a holding  
3 company in a holding company system that includes a  
4 transmitting utility, an electric utility company, or a gas  
5 utility company, without first having secured an order of  
6 the Commission authorizing it to do so.

7       “(3) Upon application for such approval the Commis-  
8 sion shall give reasonable notice in writing to the Governor  
9 and State commission of each of the States in which the  
10 physical property affected, or any part thereof, is situated,  
11 and to such other persons as it may deem advisable.

12       “(4) After notice and opportunity for hearing, if the  
13 Commission finds that the proposed disposition, consolida-  
14 tion, acquisition, or control will be consistent with the pub-  
15 lic interest, it shall approve the same.

16       “(5) For purposes of this subsection, the terms ‘elec-  
17 tric utility company’, ‘gas utility company’, ‘holding com-  
18 pany’, and ‘holding company system’ have the meaning  
19 given those terms in the Public Utility Holding Company  
20 Act of 2002.

21       “(6) Notwithstanding section 201(b)(1), facilities  
22 used for the generation of electric energy shall be subject  
23 to the jurisdiction of the Commission for purposes of this  
24 section.”.

1 **SEC. 203. MARKET-BASED RATES.**

2 (a) APPROVAL OF MARKET-BASED RATES.—Section  
3 205 of the Federal Power Act (16 U.S.C. 824d) is amend-  
4 ed by adding at the end the following:

5 “(h) The Commission may determine whether a mar-  
6 ket-based rate for the sale of electric energy subject to  
7 the jurisdiction of the Commission is just and reasonable  
8 and not unduly discriminatory or preferential. In making  
9 such determination, the Commission shall consider—

10 “(1) whether the seller and its affiliates have,  
11 or have adequately mitigated, market power in the  
12 generation and transmission of electric energy;

13 “(2) whether the sale is made in a competitive  
14 market;

15 “(3) whether market mechanisms, such as  
16 power exchanges and bid auctions, function ade-  
17 quately;

18 “(4) the effect of demand response mechanisms;

19 “(5) the effect of mechanisms or requirements  
20 intended to ensure adequate reserve margins; and

21 “(6) other such considerations as the Commis-  
22 sion may deem to be appropriate and in the public  
23 interest.”.

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



1       “(f) Whenever the Commission, after a hearing had  
2 upon its own motion or upon complaint, finds that a rate  
3 charged by a public utility authorized to charge a market-  
4 based rate under section 205 is unjust, unreasonable, un-  
5 duly discriminatory or preferential, the Commission shall  
6 determine the just and reasonable rate and fix the same  
7 by order in accordance with this section, or order such  
8 other action as will, in the judgment of the Commission,  
9 adequately ensure a just and reasonable market-based  
10 rate.”.

11 **SEC. 204. REFUND EFFECTIVE DATE.**

12       Section 206(b) of the Federal Power Act (16 U.S.C.  
13 824e(b)) is amended by—

14           (1) striking “60 days after the filing of such  
15 complaint nor later than 5 months after the expira-  
16 tion of such 60-day period” in the second sentence  
17 and inserting “on which the complaint is filed”; and

18           (2) striking “60 days after the publication by  
19 the Commission of notice of its intention to initiate  
20 such proceeding nor later than 5 months after the  
21 expiration of such 60-day period” in the third sen-  
22 tence and inserting “on which the Commission pub-  
23 lishes notice of its intention to initiate such pro-  
24 ceeding”.

1 **SEC. 205. TRANSMISSION INTERCONNECTIONS.**

2 Section 210 of the Federal Power Act (16 U.S.C.  
3 824i) is amended to read as follows:

4 “TRANSMISSION INTERCONNECTION AUTHORITY

5 “SEC. 210. (a)(1) The Commission shall, by rule, es-  
6 tablish technical standards and procedures for the inter-  
7 connection of facilities used for the generation of electric  
8 energy with facilities used for the transmission of electric  
9 energy in interstate commerce. The rule shall provide—

10 “(A) criteria to ensure that an interconnection  
11 will not unreasonably impair the reliability of the  
12 transmission system; and

13 “(B) criteria for the apportionment or reim-  
14 bursement of the costs of making the interconnec-  
15 tion.

16 “(2) Notwithstanding section 201(f), a transmitting  
17 utility shall interconnect its transmission facilities with the  
18 generation facilities of a power producer upon the applica-  
19 tion of the power producer if the power producer complies  
20 with the requirements of the rule.

21 “(b) Upon the application of a power producer or its  
22 own motion, the Commission may, after giving notice and  
23 an opportunity for a hearing to any entity whose interest  
24 may be affected, issue an order requiring—

25 “(1) the physical connection of facilities used  
26 for the generation of electric energy with facilities

1 used for the transmission of electric energy in inter-  
 2 state commerce;

3 “(2) such action as may be necessary to make  
 4 effective any such physical connection;

5 “(3) such sale or exchange of electric energy or  
 6 other coordination, as may be necessary to carry out  
 7 the purposes of such order; or

8 “(4) such increase in transmission capacity as  
 9 may be necessary to carry out the purposes of such  
 10 order.

11 “(c) As used in this section, the term ‘power pro-  
 12 ducer’ means an entity that owns or operates a facility  
 13 used for the generation of electric energy.”.

14 **SEC. 206. OPEN ACCESS TRANSMISSION BY CERTAIN UTILI-**  
 15 **TIES.**

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

18 “OPEN ACCESS BY UNREGULATED TRANSMITTING  
 19 UTILITIES

20 “SEC. 211A. (1) Subject to section 212(h), the Com-  
 21 mission may, by rule or order, require an unregulated  
 22 transmitting utility to provide transmission services—

23 “(A) at rates that are comparable to those that  
 24 the unregulated transmitting utility charges itself,  
 25 and

1           “(B) on terms and conditions (not relating to  
2 rates) that are comparable to those under Commis-  
3 sion rules that require public utilities to offer open  
4 access transmission services and that are not unduly  
5 discriminatory or preferential.

6           “(2) The Commission shall exempt from any rule or  
7 order under this subsection any unregulated transmitting  
8 utility that—

9           “(A) sells no more than 4,000,000 megawatt  
10 hours of electricity per year,

11           “(B) does not own or operate any transmission  
12 facilities that are necessary for operating an inter-  
13 connected transmission system (or any portion  
14 thereof), or

15           “(C) meets other criteria the Commission deter-  
16 mines to be in the public interest.

17           “(3) The rate changing procedures applicable to pub-  
18 lic utilities under subsections (c) and (d) of section 205  
19 are applicable to unregulated transmitting utilities for  
20 purposes of this section.

21           “(4) In exercising its authority under paragraph (1),  
22 the Commission may remand transmission rates to an un-  
23 regulated transmitting utility for review and revision  
24 where necessary to meet the requirements of paragraph  
25 (1).

1       “(5) The provision of transmission services under  
2 paragraph (1) does not preclude a request for trans-  
3 mission services under section 211.

4       “(6) The Commission may not require a State or mu-  
5 nicipality to take action under this section that constitutes  
6 a private business use for purposes of section 141 of the  
7 Internal Revenue Code of 1986 (26 U.S.C. 141).

8       “(7) For purposes of this subsection, the term ‘un-  
9 regulated transmitting utility’ means an entity that—

10           “(A) owns or operates facilities used for the  
11 transmission of electric energy in interstate com-  
12 merce, and

13           “(B) is either an entity described in section  
14 201(f) or a rural electric cooperative.”.

15 **SEC. 207. ELECTRIC RELIABILITY STANDARDS.**

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

18 **“SEC. 215. ELECTRIC RELIABILITY STANDARDS.**

19       “(a) DUTY OF THE COMMISSION.—The Commission  
20 shall establish and enforce one or more systems of manda-  
21 tory electric reliability standards to ensure the reliable op-  
22 eration of the interstate transmission system, which shall  
23 be applicable to—

1           “(1) any entity that sells, purchases, or trans-  
2           mits, electric energy using the interstate trans-  
3           mission system, and

4           “(2) any entity that owns, operates, or main-  
5           tains facilities that are a part of the interstate  
6           transmission system.

7           “(b) STANDARDS.—In carrying out its responsibility  
8           under subsection (a), the Commission may adopt and en-  
9           force, in whole or in part, a reliability standard proposed  
10          or adopted by the North American Electric Reliability  
11          Council, a regional reliability council, a similar organiza-  
12          tion, or a State regulatory authority.

13          “(c) ENFORCEMENT.—In carrying out its responsi-  
14          bility under subsection (a), the Commission may certify  
15          one or more self-regulating reliability organizations (which  
16          may include the North American Electric Reliability Coun-  
17          cil, one or more regional reliability councils, one or more  
18          regional transmission organizations, or any similar organi-  
19          zation) to ensure the reliable operation of the interstate  
20          transmission system and to monitor and enforce compli-  
21          ance of their members with electric reliability standards  
22          adopted under this section.

23          “(d) COOPERATION WITH CANADA AND MEXICO.—  
24          The Commission shall ensure that any self-regulating reli-  
25          ability organization certified under this section, one or

1 more of whose members are interconnected with transmit-  
2 ting utilities in Canada or the Republic of Mexico, provide  
3 for the participation of such utilities in the governance of  
4 the organization and the adoption of reliability standards.  
5 Nothing in this section shall be construed to extend the  
6 jurisdiction of the Commission outside of the United  
7 States.

8       “(e) PRESERVATION OF STATE AUTHORITY.—Noth-  
9 ing in this section shall be construed to preempt the au-  
10 thority of any State to take action to ensure the safety,  
11 adequacy, and reliability of local distribution facilities  
12 service within the State, except where the exercise of such  
13 authority unreasonably impairs the reliability of the inter-  
14 state transmission system.

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

16           “(1) The term ‘interstate transmission system’  
17 means the network of facilities used for the trans-  
18 mission of electric energy in interstate commerce.

19           “(2) The term ‘reliability’ means the ability of  
20 the interstate transmission system to transmit suffi-  
21 cient electric energy to supply the aggregate electric  
22 demand and energy requirements of electricity con-  
23 sumers at all times and the ability of the system to  
24 withstand sudden disturbances.”.

1 **SEC. 208. MARKET TRANSPARENCY RULES.**

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

4 **“SEC. 216. MARKET TRANSPARENCY RULES.**

5 “(a) COMMISSION RULES.—Not later than 180 days  
6 after the date of enactment of this section, the Commis-  
7 sion shall issue rules establishing an electronic information  
8 system to provide information about the availability and  
9 price of wholesale electric energy and transmission services  
10 to the Commission, state commissions, buyers and sellers  
11 of wholesale electric energy, users of transmission services,  
12 and the public on a timely basis.

13 “(b) INFORMATION REQUIRED.—The Commission  
14 shall require—

15 “(1) each regional transmission organization to  
16 provide statistical information about the available  
17 capacity and capacity constraints of transmission fa-  
18 cilities operated by the organization; and

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

25 “(c) TIMELY BASIS.—The Commission shall require  
26 the information required under subsection (b) to be posted



1 on the Internet as soon as practicable and updated as fre-  
2 quently as practicable.

3 “(d) **PROTECTION OF SENSITIVE INFORMATION.**—  
4 The Commission shall exempt from disclosure commercial  
5 or financial information that the Commission, by rule or  
6 order, determines to be privileged, confidential, or other-  
7 wise sensitive.”.

8 **SEC. 209. ACCESS TO TRANSMISSION BY INTERMITTENT**  
9 **GENERATORS.**

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

12 **“SEC. 217. ACCESS TO TRANSMISSION BY INTERMITTENT**  
13 **GENERATORS.**

14 “(a) **FAIR TREATMENT OF INTERMITTENT GENERA-**  
15 **TORS.**—The Commission shall ensure that all transmitting  
16 utilities provide transmission service to intermittent gen-  
17 erators in a manner that does not penalize such genera-  
18 tors, directly or indirectly, for characteristics that are—

19 “(1) inherent to intermittent energy resources;

20 and

21 “(2) are beyond the control of such generators.

22 “(b) **POLICIES.**—The Commission shall ensure that  
23 the requirement in subsection (a) is met by adopting such  
24 policies as it deems appropriate which shall include, but  
25 not be limited to, the following:

1           “(1) Subject to the sole exception set forth in  
2 paragraph (2), the Commission shall ensure that the  
3 rates transmitting utilities charge intermittent gen-  
4 erator customers for transmission services do not di-  
5 rectly or indirectly penalize intermittent generator  
6 customers for scheduling deviations.

7           “(2) The Commission may exempt a transmit-  
8 ting utility from the requirement set forth in sub-  
9 section (b) if the transmitting utility demonstrates  
10 that scheduling deviations by its intermittent gener-  
11 ator customers are likely to have a substantial ad-  
12 verse impact on the reliability of the transmitting  
13 utility’s system. For purposes of administering this  
14 exemption, there shall be a rebuttable presumption  
15 of no adverse impact where intermittent generators  
16 collectively constitute 20 percent or less of total gen-  
17 eration interconnected with transmitting utility’s  
18 system and using transmission services provided by  
19 transmitting utility.

20           “(3) The Commission shall ensure that to the  
21 extent any transmission charges recovering the  
22 transmitting utility’s embedded costs are assessed to  
23 intermittent generators, they are assessed to such  
24 generators on the basis of kilowatt-hours generated  
25 rather than the intermittent generator’s capacity.

1           “(4) The Commission shall require transmitting  
2 utilities to offer to intermittent generators, and may  
3 require transmitting utilities to offer to all trans-  
4 mission customers, access to nonfirm transmission  
5 service pursuant to long-term contracts of up to ten  
6 years duration under reasonable terms and condi-  
7 tions.

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

9           “(1) The term ‘intermittent generator’ means a  
10 facility that generates electricity using wind or solar  
11 energy and no other energy source.

12           “(2) The term ‘nonfirm transmission service’  
13 means transmission service provided on an ‘as avail-  
14 able’ basis.

15           “(3) The term ‘scheduling deviation’ means de-  
16 livery of more or less energy than has previously  
17 been forecast in a schedule submitted by an inter-  
18 mittent generator to a control area operator or  
19 transmitting utility.”.

20 **SEC. 210. ENFORCEMENT.**

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

23           (1) inserting “electric utility,” after “Any per-  
24 son,”; and

1           (2) inserting “transmitting utility,” after “li-  
2           censee” each place it appears.

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

7           (c) REVIEW OF COMMISSION ORDERS.—Section  
8 313(a) of the Federal Power Act (16 U.S.C. 8251) is  
9 amended by inserting “electric utility,” after “Any per-  
10 son,” in the first sentence.

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

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

17       **Subtitle B—Amendments to the Public Utility**  
18                               **Holding Company Act**

19       **SEC. 221. SHORT TITLE.**

20           This subtitle may be cited as the “Public Utility  
21 Holding Company Act of 2002”.

22       **SEC. 222. DEFINITIONS.**

23           For purposes of this subtitle:

24           (1) The term “affiliate” of a company means  
25           any company, 5 percent or more of the outstanding

1 voting securities of which are owned, controlled, or  
2 held with power to vote, directly or indirectly, by  
3 such company.

4 (2) The term “associate company” of a com-  
5 pany means any company in the same holding com-  
6 pany system with such company.

7 (3) The term “Commission” means the Federal  
8 Energy Regulatory Commission.

9 (4) The term “company” means a corporation,  
10 partnership, association, joint stock company, busi-  
11 ness trust, or any organized group of persons,  
12 whether incorporated or not, or a receiver, trustee,  
13 or other liquidating agent of any of the foregoing.

14 (5) The term “electric utility company” means  
15 any company that owns or operates facilities used  
16 for the generation, transmission, or distribution of  
17 electric energy for sale.

18 (6) The terms “exempt wholesale generator”  
19 and “foreign utility company” have the same mean-  
20 ings as in sections 32 and 33, respectively, of the  
21 Public Utility Holding Company Act of 1935 (15  
22 U.S.C. 79z-5a, 79z-5b), as those sections existed on  
23 the day before the effective date of this subtitle.

24 (7) The term “gas utility company” means any  
25 company that owns or operates facilities used for

1 distribution at retail (other than the distribution  
2 only in enclosed portable containers or distribution  
3 to tenants or employees of the company operating  
4 such facilities for their own use and not for resale)  
5 of natural or manufactured gas for heat, light, or  
6 power.

7 (8) The term “holding company” means—

8 (A) any company that directly or indirectly  
9 owns, controls, or holds, with power to vote, 10  
10 percent or more of the outstanding voting secu-  
11 rities of a public utility company or of a holding  
12 company of any public utility company; and

13 (B) any person, determined by the Com-  
14 mission, after notice and opportunity for hear-  
15 ing, to exercise directly or indirectly (either  
16 alone or pursuant to an arrangement or under-  
17 standing with one or more persons) such a con-  
18 trolling influence over the management or poli-  
19 cies of any public utility company or holding  
20 company as to make it necessary or appropriate  
21 for the rate protection of utility customers with  
22 respect to rates that such person be subject to  
23 the obligations, duties, and liabilities imposed  
24 by this subtitle upon holding companies.

1           (9) The term “holding company system” means  
2 a holding company, together with its subsidiary com-  
3 panies.

4           (10) The term “jurisdictional rates” means  
5 rates established by the Commission for the trans-  
6 mission of electric energy in interstate commerce,  
7 the sale of electric energy at wholesale in interstate  
8 commerce, the transportation of natural gas in inter-  
9 state commerce, and the sale in interstate commerce  
10 of natural gas for resale for ultimate public con-  
11 sumption for domestic, commercial, industrial, or  
12 any other use.

13           (11) The term “natural gas company” means a  
14 person engaged in the transportation of natural gas  
15 in interstate commerce or the sale of such gas in  
16 interstate commerce for resale.

17           (12) The term “person” means an individual or  
18 company.

19           (13) The term “public utility” means any per-  
20 son who owns or operates facilities used for trans-  
21 mission of electric energy in interstate commerce or  
22 sales of electric energy at wholesale in interstate  
23 commerce.

24           (14) The term “public utility company” means  
25 an electric utility company or a gas utility company.

1           (15) The term “State commission” means any  
2           commission, board, agency, or officer, by whatever  
3           name designated, of a State, municipality, or other  
4           political subdivision of a State that, under the laws  
5           of such State, has jurisdiction to regulate public util-  
6           ity companies.

7           (16) The term “subsidiary company” of a hold-  
8           ing company means—

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

14                  (B) any person, the management or poli-  
15                  cies of which the Commission, after notice and  
16                  opportunity for hearing, determines to be sub-  
17                  ject to a controlling influence, directly or indi-  
18                  rectly, by such holding company (either alone or  
19                  pursuant to an arrangement or understanding  
20                  with one or more other persons) so as to make  
21                  it necessary for the rate protection of utility  
22                  customers with respect to rates that such per-  
23                  son be subject to the obligations, duties, and li-  
24                  abilities imposed by this subtitle upon sub-  
25                  sidiary companies of holding companies.



1           (17) The term “voting security” means any se-  
2           curity presently entitling the owner or holder thereof  
3           to vote in the direction or management of the affairs  
4           of a company.

5 **SEC. 223. REPEAL OF THE PUBLIC UTILITY HOLDING COM-**  
6                                   **PANY ACT OF 1935.**

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

9 **SEC. 224. FEDERAL ACCESS TO BOOKS AND RECORDS.**

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

18          (b) AFFILIATE COMPANIES.—Each affiliate of a hold-  
19 ing company or of any subsidiary company of a holding  
20 company shall maintain, and shall make available to the  
21 Commission, such books, accounts, memoranda, and other  
22 records with respect to any transaction with another affil-  
23 iate, as the Commission deems to be relevant to costs in-  
24 curred by a public utility or natural gas company that is  
25 an associate company of such holding company and nec-

1 essary or appropriate for the protection of utility cus-  
2 tomers with respect to jurisdictional rates.

3 (c) HOLDING COMPANY SYSTEMS.—The Commission  
4 may examine the books, accounts, memoranda, and other  
5 records of any company in a holding company system, or  
6 any affiliate thereof, as the Commission deems to be rel-  
7 evant to costs incurred by a public utility or natural gas  
8 company within such holding company system and nec-  
9 essary or appropriate for the protection of utility cus-  
10 tomers with respect to jurisdictional rates.

11 (d) CONFIDENTIALITY.—No member, officer, or em-  
12 ployee of the Commission shall divulge any fact or infor-  
13 mation that may come to his or her knowledge during the  
14 course of examination of books, accounts, memoranda, or  
15 other records as provided in this section, except as may  
16 be directed by the Commission or by a court of competent  
17 jurisdiction.

18 **SEC. 225. STATE ACCESS TO BOOKS AND RECORDS.**

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

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

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

5           (3) are necessary for the effective discharge of  
6           the responsibilities of the State commission with re-  
7           spect to such proceeding.

8           (b) LIMITATION.—Subsection (a) does not apply to  
9           any person that is a holding company solely by reason of  
10          ownership of one or more qualifying facilities under the  
11          Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
12          2601 et seq.).

13          (c) CONFIDENTIALITY OF INFORMATION.—The pro-  
14          duction of books, accounts, memoranda, and other records  
15          under subsection (a) shall be subject to such terms and  
16          conditions as may be necessary and appropriate to safe-  
17          guard against unwarranted disclosure to the public of any  
18          trade secrets or sensitive commercial information.

19          (d) EFFECT ON STATE LAW.—Nothing in this sec-  
20          tion shall preempt applicable State law concerning the pro-  
21          vision of books, accounts, memoranda, and other records,  
22          or in any way limit the rights of any State to obtain books,  
23          accounts, memoranda, and other records under any other  
24          Federal law, contract, or otherwise.

1 (e) COURT JURISDICTION.—Any United States dis-  
2 trict court located in the State in which the State commis-  
3 sion referred to in subsection (a) is located shall have ju-  
4 risdiction to enforce compliance with this section.

5 **SEC. 226. EXEMPTION AUTHORITY.**

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

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

14 (2) exempt wholesale generators; or

15 (3) foreign utility companies.

16 (b) OTHER AUTHORITY.—The Commission shall ex-  
17 empt a person or transaction from the requirements of  
18 section 224, if, upon application or upon the motion of  
19 the Commission—

20 (1) the Commission finds that the books, ac-  
21 counts, memoranda, and other records of any person  
22 are not relevant to the jurisdictional rates of a pub-  
23 lic utility or natural gas company; or

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

4 **SEC. 227. AFFILIATE TRANSACTIONS.**

5           (a) COMMISSION AUTHORITY UNAFFECTED.—Noth-  
6           ing in this subtitle shall limit the authority of the Commis-  
7           sion under the Federal Power Act (16 U.S.C. 791a et seq.)  
8           to require that jurisdictional rates are just and reasonable,  
9           including the ability to deny or approve the pass through  
10          of costs, the prevention of cross-subsidization, and the pro-  
11          mulgation of such rules and regulations as are necessary  
12          or appropriate for the protection of utility consumers.

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

21 **SEC. 228. APPLICABILITY.**

22          Except as otherwise specifically provided in this sub-  
23          title, no provision of this subtitle shall apply to, or be  
24          deemed to include—

25                 (1) the United States;

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

3           (3) any foreign governmental authority not op-  
4 erating in the United States;

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

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

11 **SEC. 229. EFFECT ON OTHER REGULATIONS.**

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

15 **SEC. 230. ENFORCEMENT.**

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

20 **SEC. 231. SAVINGS PROVISIONS.**

21         (a) IN GENERAL.—Nothing in this subtitle prohibits  
22 a person from engaging in or continuing to engage in ac-  
23 tivities or transactions in which it is legally engaged or  
24 authorized to engage on the effective date of this subtitle.

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

7 **SEC. 232. IMPLEMENTATION.**

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

10 (1) promulgate such regulations as may be nec-  
11 essary or appropriate to implement this subtitle  
12 (other than section 225); and

13 (2) submit to the Congress detailed rec-  
14 ommendations on technical and conforming amend-  
15 ments to Federal law necessary to carry out this  
16 subtitle and the amendments made by this subtitle.

17 **SEC. 233. TRANSFER OF RESOURCES.**

18 All books and records that relate primarily to the  
19 functions transferred to the Commission under this sub-  
20 title shall be transferred from the Securities and Exchange  
21 Commission to the Commission.

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

4 (a) **TASK FORCE.**—There is established an inter-  
5 agency task force, to be known as the “Electric Energy  
6 Market Competition Task Force” (referred to in this sec-  
7 tion as the “task force”), which shall consist of—

8 (1) 1 member each from—

9 (A) the Department of Justice, to be ap-  
10 pointed by the Attorney General of the United  
11 States;

12 (B) the Federal Energy Regulatory Com-  
13 mission, to be appointed by the chairman of  
14 that Commission; and

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

18 (2) 2 advisory members (who shall not vote), of  
19 whom—

20 (A) 1 shall be appointed by the Secretary  
21 of Agriculture to represent the Rural Utility  
22 Service; and

23 (B) 1 shall be appointed by the Chairman  
24 of the Securities and Exchange Commission to  
25 represent that Commission.

26 (b) **STUDY AND REPORT.**—



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

5           (2) REPORT.—

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

10           (B) PUBLIC COMMENT.—At least 60 days  
11 before submission of a final report to the Con-  
12 gress under subparagraph (A), the task force  
13 shall publish a draft report in the Federal Reg-  
14 ister to provide for public comment.

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

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

19           (2) activities within the wholesale and retail  
20 electric market that may allow unfair and unjusti-  
21 fied discriminatory and deceptive practices;

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

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

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

6 (d) CONSULTATION.—In performing the study re-  
7 quired by this section, the task force shall consult with  
8 and solicit comments from its advisory members, the  
9 States, representatives of the electric power industry, and  
10 the public.

11 **SEC. 235. GAO STUDY ON IMPLEMENTATION.**

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

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

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

22 (b) REPORT TO CONGRESS.—Not earlier than 18  
23 months after the effective date of this subtitle or later  
24 than 24 months after that effective date, the Comptroller  
25 General shall submit a report to the Congress on the re-

1 sults of the study conducted under subsection (a), includ-  
2 ing probable causes of its findings and recommendations  
3 to the Congress and the States for any necessary legisla-  
4 tive changes.

5 **SEC. 236. EFFECTIVE DATE.**

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

8 **SEC. 237. AUTHORIZATION OF APPROPRIATIONS.**

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

11 **SEC. 238. CONFORMING AMENDMENTS TO THE FEDERAL**  
12 **POWER ACT.**

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

15 (b) DEFINITIONS.—

16 (1) Section 201(g) of the Federal Power Act  
17 (16 U.S.C. 824(g)) is amended by striking “1935”  
18 and inserting “2002”.

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

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

3 **SEC. 241. REAL-TIME PRICING STANDARD.**

4 (a) ADOPTION OF STANDARD.—Section 111(d) of the  
5 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
6 2621(d)) is amended by adding at the end the following:

7 “(11) REAL-TIME PRICING.—(A) Each electric  
8 utility shall, at the request of an electric consumer,  
9 provide electric service under a real-time rate sched-  
10 ule, under which the rate charged by the electric  
11 utility varies by the hour (or smaller time interval)  
12 according to changes in the electric utility’s whole-  
13 sale power cost. The real-time pricing service shall  
14 enable the electric consumer to manage energy use  
15 and cost through real-time metering and commu-  
16 nications technology.

17 “(B) For purposes of implementing this para-  
18 graph, any reference contained in this section to the  
19 date of enactment of the Public Utility Regulatory  
20 Policies Act of 1978 shall be deemed to be a ref-  
21 erence to the date of enactment of this paragraph.

22 “(C) Notwithstanding subsections (b) and (c) of  
23 section 112, each State regulatory authority shall  
24 consider and make a determination concerning  
25 whether it is appropriate to implement the standard

1 set out in subparagraph (A) not later than one year  
2 after the date of enactment of this paragraph.”.

3 (b) SPECIAL RULES FOR REAL-TIME PRICING  
4 STANDARD.—Section 115 of the Public Utility Regulatory  
5 Policies Act of 1978 (16 U.S.C. 2625) is amended by add-  
6 ing at the end the following:

7 “(i) REAL-TIME PRICING.—In a State that permits  
8 third-party marketers to sell electric energy to retail elec-  
9 tric consumers, the electric consumer shall be entitled to  
10 receive the same real-time metering and communication  
11 service as a direct retail electric consumer of the electric  
12 utility.”.

13 **SEC. 242. ADOPTION OF ADDITIONAL STANDARDS.**

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

18 “(6) DISTRIBUTED GENERATION.— Each elec-  
19 tric utility shall provide distributed generation, com-  
20 bined heat and power, and district heating and cool-  
21 ing systems competitive access to the local distribu-  
22 tion grid and competitive pricing of service, and  
23 shall use simplified standard contracts for the inter-  
24 connection of generating facilities that have a power  
25 production capacity of 250 kilowatts or less.

1           “(7) DISTRIBUTION INTERCONNECTIONS.—No  
2 electric utility may refuse to interconnect a gener-  
3 ating facility with the distribution facilities of the  
4 electric utility if the owner or operator of the gener-  
5 ating facility complies with technical standards  
6 adopted by the State regulatory authority and  
7 agrees to pay the costs established by such State  
8 regulatory authority.

9           “(8) MINIMUM FUEL AND TECHNOLOGY DIVER-  
10 SITY STANDARD.—Each electric utility shall develop  
11 a plan to minimize dependence on one fuel source  
12 and to ensure that the electric energy it sells to con-  
13 sumers is generated using a diverse range of fuels  
14 and technologies, including renewable technologies.

15           “(9) FOSSIL FUEL EFFICIENCY.—Each electric  
16 utility shall develop and implement a ten-year plan  
17 to increase the efficiency of its fossil fuel generation  
18 and shall monitor and report to its State regulatory  
19 authority excessive greenhouse gas emissions result-  
20 ing from the inefficient operation of its fossil fuel  
21 generating plants.”.

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



1           “(1) IN GENERAL.—After the date of enact-  
2           ment of this subsection, no electric utility shall be  
3           required to enter into a new contract or obligation  
4           to purchase or sell electric energy under this section.

5           “(2) NO EFFECT ON EXISTING RIGHTS AND  
6           REMEDIES.—Nothing in this subsection affects the  
7           rights or remedies of any party with respect to the  
8           purchase or sale of electric energy or capacity from  
9           or to a facility under this section under any contract  
10          or obligation to purchase or to sell electric energy or  
11          capacity on the date of enactment of this subsection,  
12          including—

13                 “(A) the right to recover costs of pur-  
14                 chasing such electric energy or capacity; and

15                 “(B) in States without competition for re-  
16                 tail electric supply, the obligation of a utility to  
17                 provide, at just and reasonable rates for con-  
18                 sumption by a qualifying small power produc-  
19                 tion facility or a qualifying cogeneration facility,  
20                 backup, standby, and maintenance power.

21          “(3) RECOVERY OF COSTS.—

22                 “(A) REGULATION.—To ensure recovery  
23                 by an electric utility that purchases electric en-  
24                 ergy or capacity from a qualifying facility pur-  
25                 suant to any legally enforceable obligation en-



1           tered into or imposed under this section before  
2           the date of enactment of this subsection, of all  
3           prudently incurred costs associated with the  
4           purchases, the Commission shall issue and en-  
5           force such regulations as may be required to en-  
6           sure that the electric utility shall collect the  
7           prudently incurred costs associated with such  
8           purchases.

9           “(B) ENFORCEMENT.—A regulation under  
10          subparagraph (A) shall be enforceable in ac-  
11          cordance with the provisions of law applicable  
12          to enforcement of regulations under the Federal  
13          Power Act (16 U.S.C. 791a et seq.).”.

14         (b) ELIMINATION OF OWNERSHIP LIMITATIONS.—

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

18                 “(C) ‘qualifying small power production fa-  
19                 cility’ means a small power production facility  
20                 that the Commission determines, by rule, meets  
21                 such requirements (including requirements re-  
22                 specting minimum size, fuel use, and fuel effi-  
23                 ciency) as the Commission may, by rule, pre-  
24                 scribe.”.

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

4                   “(B) ‘qualifying cogeneration facility’  
5           means a cogeneration facility that the Commis-  
6           sion determines, by rule, meets such require-  
7           ments (including requirements respecting min-  
8           imum size, fuel use, and fuel efficiency) as the  
9           Commission may, by rule, prescribe.”.

10 **SEC. 245. NET METERING.**

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

13 **“SEC. 605. NET METERING FOR RENEWABLE ENERGY AND**  
14 **FUEL CELLS.**

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

16                   “(1) The term ‘eligible on-site generating facil-  
17           ity’ means—

18                           “(A) a facility on the site of a residential  
19           electric consumer with a maximum generating  
20           capacity of 10 kilowatts or less that is fueled by  
21           solar energy, wind energy, or fuel cells; or

22                           “(B) a facility on the site of a commercial  
23           electric consumer with a maximum generating  
24           capacity of 500 kilowatts or less that is fueled

1           solely by a renewable energy resource, landfill  
2           gas, or a high efficiency system.

3           “(2) The term ‘renewable energy resource’  
4           means solar, wind, biomass, or geothermal energy.

5           “(3) The term ‘high efficiency system’ means  
6           fuel cells or combined heat and power.

7           “(4) The term ‘net metering service’ means  
8           service to an electric consumer under which electric  
9           energy generated by that electric consumer from an  
10          eligible on-site generating facility and delivered to  
11          the local distribution facilities may be used to offset  
12          electric energy provided by the electric utility to the  
13          electric consumer during the applicable billing pe-  
14          riod.

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

19          “(c) RATES AND CHARGES.—

20                  “(1) IDENTICAL CHARGES.—An electric  
21                  utility—

22                          “(A) shall charge the owner or operator of  
23                          an on-site generating facility rates and charges  
24                          that are identical to those that would be

1 charged other electric consumers of the electric  
2 utility in the same rate class; and

3 “(B) shall not charge the owner or oper-  
4 ator of an on-site generating facility any addi-  
5 tional standby, capacity, interconnection, or  
6 other rate or charge.

7 “(2) MEASUREMENT.—An electric utility that  
8 sells electric energy to the owner or operator of an  
9 on-site generating facility shall measure the quantity  
10 of electric energy produced by the on-site facility  
11 and the quantity of electric energy consumed by the  
12 owner or operator of an on-site generating facility  
13 during a billing period in accordance with normal  
14 metering practices.

15 “(3) ELECTRIC ENERGY SUPPLIED EXCEEDING  
16 ELECTRIC ENERGY GENERATED.—If the quantity of  
17 electric energy sold by the electric utility to an on-  
18 site generating facility exceeds the quantity of elec-  
19 tric energy supplied by the on-site generating facility  
20 to the electric utility during the billing period, the  
21 electric utility may bill the owner or operator for the  
22 net quantity of electric energy sold, in accordance  
23 with normal metering practices.

24 “(4) ELECTRIC ENERGY GENERATED EXCEED-  
25 ING ELECTRIC ENERGY SUPPLIED.—If the quantity

1 of electric energy supplied by the on-site generating  
2 facility to the electric utility exceeds the quantity of  
3 electric energy sold by the electric utility to the on-  
4 site generating facility during the billing period—

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

9 “(B) the owner or operator of the on-site  
10 generating facility shall be credited for the ex-  
11 cess kilowatt-hours generated during the billing  
12 period, with the kilowatt-hour credit appearing  
13 on the bill for the following billing period.

14 “(d) SAFETY AND PERFORMANCE STANDARDS.—

15 “(1) An eligible on-site generating facility and  
16 net metering system used by an electric consumer  
17 shall meet all applicable safety, performance, reli-  
18 ability, and interconnection standards established by  
19 the National Electrical Code, the Institute of Elec-  
20 trical and Electronics Engineers, and Underwriters  
21 Laboratories.

22 “(2) The Commission, after consultation with  
23 State regulatory authorities and nonregulated elec-  
24 tric utilities and after notice and opportunity for  
25 comment, may adopt, by rule, additional control and

1 testing requirements for on-site generating facilities  
2 and net metering systems that the Commission de-  
3 termines are necessary to protect public safety and  
4 system reliability.

5 “(e) APPLICATION.—This section applies to each  
6 electric utility during any calendar year in which the total  
7 sales of electric energy by such utility for purposes other  
8 than resale exceeded 1,000,000,000 kilowatt-hours during  
9 the preceding calendar year.”.

## 10 **Subtitle D—Consumer Protections**

### 11 **SEC. 251. INFORMATION DISCLOSURE.**

12 (a) OFFERS AND SOLICITATIONS.—The Federal  
13 Trade Commission shall issue rules requiring each electric  
14 utility that makes an offer to sell electric energy, or solicits  
15 electric consumers to purchase electric energy to provide  
16 the electric consumer a statement containing the following  
17 information—

18 (1) the nature of the service being offered, in-  
19 cluding information about interruptibility of service;

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

22 (3) a description of all other charges associated  
23 with the service being offered, including access  
24 charges, exit charges, back-up service charges,

1 stranded cost recovery charges, and customer service  
2 charges; and

3 (4) information the Federal Trade Commission  
4 determines is technologically and economically fea-  
5 sible to provide, is of assistance to electric con-  
6 sumers in making purchasing decisions, and  
7 concerns—

8 (A) the product or its price;

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

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

13 (b) PERIODIC BILLINGS.—The Federal Trade Com-  
14 mission shall issue rules requiring any electric utility that  
15 sells electric energy to transmit to each of its electric con-  
16 sumers, in addition to the information transmitted pursu-  
17 ant to section 115(f) of the Public Utility Regulatory Poli-  
18 cies Act of 1978 (16 U.S.C. 2625(f)), a clear and concise  
19 statement containing the information described in sub-  
20 section (a)(4) for each billing period (unless such informa-  
21 tion is not reasonably ascertainable by the electric utility).

22 **SEC. 252. CONSUMER PRIVACY.**

23 (a) PROHIBITION.—The Federal Trade Commission  
24 shall issue rules prohibiting any electric utility that ob-  
25 tains consumer information in connection with the sale or

1 delivery of electric energy to an electric consumer from  
2 using, disclosing, or permitting access to such information  
3 unless the electric consumer to whom such information re-  
4 lates provides prior written approval.

5 (b) PERMITTED USE.—The rules issued under this  
6 section shall not prohibit any electric utility from using,  
7 disclosing, or permitting access to consumer information  
8 referred to in subsection (a) for any of the following pur-  
9 poses:

10 (1) To facilitate an electric consumer's change  
11 in selection of an electric utility under procedures  
12 approved by the State or State regulatory authority.

13 (2) To initiate, render, bill, or collect for the  
14 sale or delivery of electric energy to electric con-  
15 sumers or for related services.

16 (3) To protect the rights or property of the per-  
17 son obtaining such information.

18 (4) To protect retail electric consumers from  
19 fraud, abuse, and unlawful subscription in the sale  
20 or delivery of electric energy to such consumers.

21 (5) For law enforcement purposes.

22 (6) For purposes of compliance with any Fed-  
23 eral, State, or local law or regulation authorizing  
24 disclosure of information to a Federal, State, or  
25 local agency.



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

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

8 (1) The term “aggregate consumer informa-  
9 tion” means collective data that relates to a group  
10 or category of retail electric consumers, from which  
11 individual consumer identities and characteristics  
12 have been removed.

13 (2) The term “consumer information” means  
14 information that relates to the quantity, technical  
15 configuration, type, destination, or amount of use of  
16 electric energy delivered to any retail electric con-  
17 sumer.

18 **SEC. 253. UNFAIR TRADE PRACTICES.**

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

23 (b) CRAMMING.—The Federal Trade Commission  
24 shall issue rules prohibiting the sale of goods and services

1 to an electric consumer unless expressly authorized by law  
2 or the electric consumer.

3 **SEC. 254. APPLICABLE PROCEDURES.**

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

7 **SEC. 255. FEDERAL TRADE COMMISSION ENFORCEMENT.**

8 Violation of a rule issued under this subtitle shall be  
9 treated as a violation of a rule under section 18 of the  
10 Federal Trade Commission Act (15 U.S.C. 57a) respect-  
11 ing unfair or deceptive acts or practices. All functions and  
12 powers of the Federal Trade Commission under such Act  
13 are available to the Federal Trade Commission to enforce  
14 compliance with this subtitle notwithstanding any jurisdic-  
15 tional limits in such Act.

16 **SEC. 256. STATE AUTHORITY.**

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

1 **SEC. 257. APPLICATION OF SUBTITLE.**

2       The provisions of this subtitle apply to each electric  
3 utility if the total sales of electric energy by such utility  
4 for purposes other than resale exceed 500 million kilowatt-  
5 hours per calendar year. The provisions of this subtitle  
6 do not apply to the operations of an electric utility to the  
7 extent that such operations relate to sales of electric en-  
8 ergy for purposes of resale.

9 **SEC. 258. DEFINITIONS.**

10       As used in this subtitle:

11           (1) The term “aggregate consumer informa-  
12 tion” means collective data that relates to a group  
13 or category of electric consumers, from which indi-  
14 vidual consumer identities and identifying character-  
15 istics have been removed.

16           (2) The term “consumer information” means  
17 information that relates to the quantity, technical  
18 configuration, type, destination, or amount of use of  
19 electric energy delivered to an electric consumer.

20           (3) The terms “electric consumer”, “electric  
21 utility”, and “State regulatory authority” have the  
22 meanings given such terms in section 3 of the Public  
23 Utility Regulatory Policies Act of 1978 (16 U.S.C.  
24 2602).

1       **Subtitle E—Renewable Energy and Rural**  
2                                   **Construction Grants**

3       **SEC. 261. RENEWABLE ENERGY PRODUCTION INCENTIVE.**

4           (a) INCENTIVE PAYMENTS.—Section 1212(a) of the  
5 Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is  
6 amended by striking “and which satisfies” and all that  
7 follows through “Secretary shall establish.” and inserting  
8 the following:

9           “. The Secretary shall establish other procedures nec-  
10 essary for efficient administration of the program. The  
11 Secretary shall not establish any criteria or procedures  
12 that have the effect of assigning to proposals a higher or  
13 lower priority for eligibility or allocation of appropriated  
14 funds on the basis of the energy source proposed.”.

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

18           (1) by striking “a State or any political” and  
19 all that follows through “nonprofit electrical cooper-  
20 ative” and inserting the following: “an electricity-  
21 generating cooperative exempt from taxation under  
22 section 501(c)(12) or section 1381(a)(2)(C) of the  
23 Internal Revenue Code of 1986, a public utility de-  
24 scribed in section 115 of such Code, a State, Com-  
25 monwealth, territory, or possession of the United

1 States or the District of Columbia, or a political  
2 subdivision thereof, or an Indian tribal government  
3 or subdivision thereof,”; and

4 (2) by inserting “landfill gas, incremental hy-  
5 dropower, ocean” after “wind, biomass,”.

6 (c) ELIGIBILITY WINDOW.—Section 1212(c) of the  
7 Energy Policy Act of 1992 (42 U.S.C. 13317(c)) is  
8 amended by striking “during the 10-fiscal year period be-  
9 ginning with the first full fiscal year occurring after the  
10 enactment of this section” and inserting “before October  
11 1, 2013”.

12 (d) PAYMENT PERIOD.—Section 1212(d) of the En-  
13 ergy Policy Act of 1992 (42 U.S.C. 13317(d)) is amended  
14 by inserting “or in which the Secretary finds that all nec-  
15 essary Federal and State authorizations have been ob-  
16 tained to begin construction of the facility” after “eligible  
17 for such payments”.

18 (e) AMOUNT OF PAYMENT.—Section 1212(e)(1) of  
19 the Energy Policy Act of 1992 (42 U.S.C. 13317(e)(1))  
20 is amended by inserting “landfill gas, incremental hydro-  
21 power, ocean” after “wind, biomass,”.

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

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

5 “(g) INCREMENTAL HYDROPOWER.—

6 “(1) PROGRAMS.—Subject to subsection (h)(2),  
7 if an incremental hydropower program meets the re-  
8 quirements of this section, as determined by the Sec-  
9 retary, the incremental hydropower program shall be  
10 eligible to receive incentive payments under this sec-  
11 tion.

12 “(2) DEFINITION OF INCREMENTAL HYDRO-  
13 POWER.—In this subsection, the term ‘incremental  
14 hydropower’ means additional generating capacity  
15 achieved from increased efficiency or additions of  
16 new capacity at a hydroelectric facility in existence  
17 on the date of enactment of this paragraph.

18 “(h) AUTHORIZATION OF APPROPRIATIONS.—

19 “(1) IN GENERAL.—Subject to paragraph (2),  
20 there are authorized to be appropriated such sums  
21 as may be necessary to carry out this section for fis-  
22 cal years 2003 through 2023.

23 “(2) LIMITATION ON FUNDS USED FOR INCRE-  
24 MENTAL HYDROPOWER PROGRAMS.—Not more than  
25 30 percent of the amounts made available under

1 paragraph (1) shall be used to carry out programs  
2 described in subsection (g)(2).

3 “(3) AVAILABILITY OF FUNDS.—Funds made  
4 available under paragraph (1) shall remain available  
5 until expended.”.

6 **SEC. 262. ASSESSMENT OF RENEWABLE ENERGY RE-**  
7 **SOURCES.**

8 (a) RESOURCE ASSESSMENT.—Not later than 3  
9 months after the date of enactment of this title, and each  
10 year thereafter, the Secretary of Energy shall review the  
11 available assessments of renewable energy resources avail-  
12 able within the United States, including solar, wind, bio-  
13 mass, ocean, geothermal, and hydroelectric energy re-  
14 sources, and undertake new assessments as necessary,  
15 taking into account changes in market conditions, avail-  
16 able technologies and other relevant factors.

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

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

1           (2) such other information as the Secretary of  
2           Energy believes would be useful in developing such  
3           renewable energy resources, including descriptions of  
4           surrounding terrain, population and load centers,  
5           nearby energy infrastructure, location of energy and  
6           water resources, and available estimates of the costs  
7           needed to develop each resource.

8   **SEC. 263. FEDERAL PURCHASE REQUIREMENT.**

9           (a) **REQUIREMENT.**—The President shall ensure  
10          that, of the total amount of electric energy the federal gov-  
11          ernment consumes during any fiscal year—

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

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

16                 (3) not less than 7.5 percent in fiscal year 2010  
17                 and each fiscal year thereafter—

18          shall be renewable energy. The President shall encourage  
19          the use of innovative purchasing practices, including ag-  
20          gregation and the use of renewable energy derivatives, by  
21          federal agencies.

22                 (b) **DEFINITION.**—For purposes of this section, the  
23          term “renewable energy” means electric energy generated  
24          from solar, wind, biomass, geothermal, fuel cells, or addi-  
25          tional hydroelectric generation capacity achieved from in-



1 creased efficiency or additions of new capacity at an exist-  
2 ing hydroelectric dam.

3 (c) TRIBAL POWER GENERATION.—To the maximum  
4 extent practicable, the President shall ensure that not less  
5 than one-tenth of the amount specified in subsection (a)  
6 shall be renewable energy that is generated by an Indian  
7 tribe or by a corporation, partnership, or business associa-  
8 tion which is wholly or majority owned, directly or indi-  
9 rectly, by an Indian tribe. For purposes of this subsection,  
10 the term “Indian tribe” means any Indian tribe, band, na-  
11 tion, or other organized group or community, including  
12 any Alaska Native village or regional or village corporation  
13 as defined in or established pursuant to the Alaska Native  
14 Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
15 is recognized as eligible for the special programs and serv-  
16 ices provided by the United States to Indians because of  
17 their status as Indians.

18 **SEC. 264. RURAL CONSTRUCTION GRANTS.**

19 Section 313 of the Rural Electrification Act of 1936  
20 (7 U.S.C. 940e) is amended by adding after subsection  
21 (b) the following:

22 “(c) RURAL AND REMOTE COMMUNITIES ELEC-  
23 TRIFICATION GRANTS.—The Secretary of Agriculture, in  
24 consultation with the Secretary of Energy and the Sec-  
25 retary of the Interior, may provide grants to eligible bor-

1 rowers under this Act for the purpose of increasing energy  
2 efficiency, siting or upgrading transmission and distribu-  
3 tion lines, or providing or modernizing electric facilities  
4 for—

5           “(1) a unit of local government of a State or  
6           territory; or

7           “(2) an Indian tribe or Tribal College or Uni-  
8           versity as defined in section 316(b)(3) of the Higher  
9           Education Act (20 U.S.C. 1059c(b)(3)).

10          “(d) GRANT CRITERIA.—The Secretary shall make  
11 grants based on a determination of cost-effectiveness and  
12 most effective use of the funds to achieve the stated pur-  
13 poses of this section.

14          “(e) PREFERENCE.—In making grants under this  
15 section, the Secretary shall give a preference to renewable  
16 energy facilities.

17          “(f) DEFINITION.—For purposes of this section, the  
18 term ‘Indian tribe’ means any Indian tribe, band, nation,  
19 or other organized group or community, including any  
20 Alaska Native village or regional or village corporation as  
21 defined in or established pursuant to the Alaska Native  
22 Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
23 is recognized as eligible for the special programs and serv-  
24 ices provided by the United States to Indians because of  
25 their status as Indians;

1       “(g) AUTHORIZATION.—For the purpose of carrying  
2 out subsection (c), there are authorized to be appropriated  
3 to the Secretary \$20,000,000 for each of the seven fiscal  
4 years following the date of enactment of this subsection.”.

5 **SEC. 265. RENEWABLE PORTFOLIO STANDARD.**

6       Title VI of the Public Utility Regulatory Policies Act  
7 of 1978 is further amended by adding at the end the fol-  
8 lowing:

9 **“SEC. 606. FEDERAL RENEWABLE PORTFOLIO STANDARD.**

10       “(a) MINIMUM RENEWABLE GENERATION REQUIRE-  
11 MENT.—For each calendar year beginning with 2003, each  
12 retail electric supplier shall submit to the Secretary renew-  
13 able energy credits in an amount equal to the required  
14 annual percentage, specified in subsection (b), of the total  
15 electric energy sold by the retail electric supplier to electric  
16 consumers in the calendar year. The retail electric supplier  
17 shall make this submission before April 1 of the following  
18 calendar year.

19       “(b) REQUIRED ANNUAL PERCENTAGE.—

20               “(1) For calendar years 2003 and 2004, the re-  
21 quired annual percentage shall be determined by the  
22 Secretary in an amount less than the amount in  
23 paragraph (2);

1           “(2) For calendar year 2005 the required an-  
2 nual percentage shall be 2.5 percent of the retail  
3 electric supplier’s base amount; and

4           “(3) For each calendar year from 2006 through  
5 2020, the required annual percentage of the retail  
6 electric supplier’s base amount shall be .5 percent  
7 greater than the required annual percentage for the  
8 calendar year immediately preceding.

9           “(c) SUBMISSION OF CREDITS.—(1) A retail electric  
10 supplier may satisfy the requirements of subsection (a)  
11 through the submission of—

12           “(A) renewable energy credits issued under sub-  
13 section (d) for renewable energy generated by the re-  
14 tail electric supplier in the calendar year for which  
15 credits are being submitted or any of the two pre-  
16 vious calendar years;

17           “(B) renewable energy credits obtained by pur-  
18 chase or exchange under subsection (e);

19           “(C) renewable energy credits borrowed against  
20 future years under subsection (f); or

21           “(D) any combination of credits under subpara-  
22 graphs (A), (B), and (C).

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

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

5       “(2) Under the program, an entity that generates  
6 electric energy through the use of a renewable energy re-  
7 source may apply to the Secretary for the issuance of re-  
8 newable energy credits. The application shall indicate—

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

11              “(B) the location where the electric energy was  
12       produced, and

13              “(C) any other information the Secretary deter-  
14       mines appropriate.

15       “(3)(A) Except as provided in paragraphs (B) and  
16 (C), the Secretary shall issue to an entity one renewable  
17 energy credit for each kilowatt-hour of electric energy the  
18 entity generates in calendar year 2002 and any succeeding  
19 year through the use of a renewable energy resource at  
20 an eligible facility.

21       “(B) For incremental hydropower the credits shall be  
22 calculated based on a normalized annual capacity factor  
23 for each facility, and not actual generation. The calcula-  
24 tion of the credits for incremental hydropower shall not  
25 be based on any operational changes at the hydroelectric

1 facility not directly associated with the efficiency improve-  
2 ments or capacity additions.

3       “(C) The Secretary shall issue two renewable energy  
4 credits for each kilowatt-hour of electric energy generated  
5 in calendar year 2002 and any succeeding year through  
6 the use of a renewable energy resource at an eligible facil-  
7 ity located on Indian land. For purposes of this paragraph,  
8 renewable energy generated by biomass cofired with other  
9 fuels is eligible for two credits only if the biomass was  
10 grown on the land eligible under this paragraph.

11       “(D) To be eligible for a renewable energy credit, the  
12 unit of electric energy generated through the use of a re-  
13 newable energy resource may be sold or may be used by  
14 the generator. If both a renewable energy resource and  
15 a non-renewable energy resource are used to generate the  
16 electric energy, the Secretary shall issue credits based on  
17 the proportion of the renewable energy resource used. The  
18 Secretary shall identify renewable energy credits by type  
19 and date of generation.

20       “(4) In order to receive a renewable energy credit,  
21 the recipient of a renewable energy credit shall pay a fee,  
22 calculated by the Secretary, in an amount that is equal  
23 to the administrative costs of issuing, recording, moni-  
24 toring the sale or exchange of, and tracking the credit.

1 The Secretary shall retain the fee and use it to pay these  
2 administrative costs.

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

9 “(e) CREDIT TRADING.—A renewable energy credit  
10 may be sold or exchanged by the entity to whom issued  
11 or by any other entity who acquires the credit. A renew-  
12 able energy credit for any year that is not used to satisfy  
13 the minimum renewable generation requirement of sub-  
14 section (a) for that year may be carried forward for use  
15 in another year.

16 “(f) CREDIT BORROWING.—At any time before the  
17 end of calendar year 2003, a retail electric supplier that  
18 has reason to believe that it will not have sufficient renew-  
19 able energy credits to comply with subsection (a) may—

20 “(1) submit a plan to the Secretary dem-  
21 onstrating that the retail electric supplier will earn  
22 sufficient credits within the next 3 calendar years  
23 which, when taken into account, will enable the re-  
24 tail electric supplier to meet the requirements of

1 subsection (a) for calendar year 2003 and the cal-  
2 endar year involved; and

3 (2) upon the approval of the plan by the Sec-  
4 retary, apply credits that the plan demonstrates will  
5 be earned within the next 3 calendar years to meet  
6 the requirements of subsection (a) for each calendar  
7 year involved.

8 “(g) ENFORCEMENT.—The Secretary may bring an  
9 action in the appropriate United States district court to  
10 impose a civil penalty on a retail electric supplier that does  
11 not comply with subsection (a). A retail electric supplier  
12 who does not submit the required number of renewable  
13 energy credits under subsection (a) is subject to a civil  
14 penalty of not more than 3 cents each for the renewable  
15 energy credits not submitted.

16 “(h) INFORMATION COLLECTION.—The Secretary  
17 may collect the information necessary to verify and  
18 audit—

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

22 “(2) the validity of renewable energy credits  
23 submitted by a retail electric supplier to the Sec-  
24 retary, and



1           “(3) the quantity of electricity sales of all retail  
2           electric suppliers.

3           “(i) ENVIRONMENTAL SAVINGS CLAUSE.—Incre-  
4           mental hydropower shall be subject to all applicable envi-  
5           ronmental laws and licensing and regulatory requirements.

6           “(j) STATE SAVINGS CLAUSE.—This section does not  
7           preclude a State from requiring additional renewable en-  
8           ergy generation in that State.

9           “(k) DEFINITIONS.—For purposes of this section—

10           “(1) The term ‘eligible facility’ means—

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

15                   “(B) a repowering or cofiring increment  
16                   that is placed in service on or after January 1,  
17                   2002 at a facility for the generation of electric  
18                   energy from a renewable energy resource that  
19                   was placed in service before January 1, 2002.

20           An eligible facility does not have to be inter-  
21           connected to the transmission or distribution system  
22           facilities of an electric utility.

23           “(2) The term ‘generation offset’ means re-  
24           duced electricity usage metered at a site where a

1 customer consumes electricity from a renewable en-  
2 ergy technology.

3 “(3) The term ‘incremental hydropower’ means  
4 additional generation capacity achieved from in-  
5 creased efficiency or additions of capacity after Jan-  
6 uary 1, 2002 at a hydroelectric dam that was placed  
7 in service before January 1, 2002.

8 “(4) The term ‘Indian land’ means—

9 “(A) any land within the limits of any In-  
10 dian reservation, pueblo or rancheria,

11 “(B) any land not within the limits of any  
12 Indian reservation, pueblo or rancheria title to  
13 which was on the date of enactment of this  
14 paragraph either held by the United States for  
15 the benefit of any Indian tribe or individual or  
16 held by any Indian tribe or individual subject to  
17 restriction by the United States against alien-  
18 ation,

19 “(C) any dependent Indian community,  
20 and

21 “(D) any land conveyed to any Alaska Na-  
22 tive corporation under the Alaska Native  
23 Claims Settlement Act.

24 “(5) The term ‘Indian tribe’ means any Indian  
25 tribe, band, nation, or other organized group or com-

1 munity, including any Alaska Native village or re-  
2 gional or village corporation as defined in or estab-  
3 lished pursuant to the Alaska Native Claims Settle-  
4 ment Act (43 U.S.C. 1601 et seq.), which is recog-  
5 nized as eligible for the special programs and serv-  
6 ices provided by the United States to Indians be-  
7 cause of their status as Indians.

8 “(6) The term ‘renewable energy’ means elec-  
9 tric energy generated by a renewable energy re-  
10 source.

11 “(7) The term ‘renewable energy resource’  
12 means solar, wind, biomass, ocean, or geothermal  
13 energy, a generation offset, or incremental hydro-  
14 power facility.

15 “(8) The term ‘repowering or cofiring incre-  
16 ment’ means the additional generation from a modi-  
17 fication that is placed in service on or after January  
18 1, 2002 to expand electricity production at a facility  
19 used to generate electric energy from a renewable  
20 energy resource or to cofire biomass that was placed  
21 in service before January 1, 2002.

22 “(9) The term ‘retail electric supplier’ means a  
23 person, State agency, or Federal agency that sells  
24 electric energy to electric consumers and sold not  
25 less than 500,000,000 kilowatt-hours of electric en-

1       ergy to electric consumers for purposes other than  
2       resale during the preceding calendar year.

3               “(10) The term ‘retail electric supplier’s base  
4       amount’ means the total amount of electric energy  
5       sold by the retail electric supplier to electric cus-  
6       tomers during the most recent calendar year for  
7       which information is available, excluding electric en-  
8       ergy generated by a renewable energy resource, land-  
9       fill gas, or a hydroelectric facility.

10       “(l) SUNSET.—Subsection (a) of this section expires  
11       December 31, 2020.”.

12       **SEC. 266. RENEWABLE ENERGY ON FEDERAL LAND.**

13       (a) COST-SHARE DEMONSTRATION PROGRAM.—  
14       Within 12 months after the date of enactment of this sec-  
15       tion, the Secretaries of the Interior, Agriculture, and En-  
16       ergy shall develop guidelines for a cost-share demonstra-  
17       tion program for the development of wind and solar energy  
18       facilities on Federal land.

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

23               (1) public land as defined in section 103(e) of  
24       the Federal Land Policy and Management Act of  
25       1976 (42 U.S.C. 1702(e)), or

1           (2) a unit of the National Forest System as  
2           that term is used in section 11(a) of the Forest and  
3           Rangeland Renewable Resources Planning Act of  
4           1974 (16 U.S.C. 1609(a)).

5           (c) RIGHTS-OF-WAYS.—The demonstration program  
6           shall provide for the issuance of rights-of-way pursuant  
7           to the provisions of title V of the Federal Land Policy  
8           and Management Act of 1976 (43 U.S.C. 1761 et seq.)  
9           by the Secretary of the Interior with respect to Federal  
10          land under the jurisdiction of the Department of the Inte-  
11          rior, and by the Secretary of Agriculture with respect to  
12          federal lands under the jurisdiction of the Department of  
13          Agriculture.

14          (d) AVAILABLE SITES.—For purposes of this dem-  
15          onstration program, the issuance of rights-of-way shall be  
16          limited to areas—

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

19               (2) that have been identified by the wind or  
20               solar energy industry, through a process of nomina-  
21               tion, application, or otherwise, as being of particular  
22               interest to one or both industries;

23               (3) that are not located within roadless areas;

24               (4) where operation of wind or solar facilities  
25               would be compatible with the scenic, recreational,

1 environmental, cultural, or historic values of the  
2 Federal land, and would not require the construction  
3 of new roads for the siting of lines or other trans-  
4 mission facilities; and

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

8 (e) COST-SHARE PAYMENTS BY DOE.—The Sec-  
9 retary of Energy, in cooperation with the Secretary of the  
10 Interior with respect to Federal land under the jurisdic-  
11 tion of the Department of the Interior, and the Secretary  
12 of Agriculture with respect to Federal land under the ju-  
13 risdiction of the Department of Agriculture, shall deter-  
14 mine if the portion of a project on federal land is eligible  
15 for financial assistance pursuant to this section. Only  
16 those projects that are consistent with the requirements  
17 of this section and further the purposes of this section  
18 shall be eligible. In the event a project is selected for finan-  
19 cial assistance, the Secretary of Energy shall provide no  
20 more than 15 percent of the costs of the project on the  
21 federal land, and the remainder of the costs shall be paid  
22 by non-Federal sources.

23 (f) REVISION OF LAND USE PLANS.—The Secretary  
24 of the Interior shall consider development of wind and  
25 solar energy, as appropriate, in revisions of land use plans

1 under section 202 of the Federal Land Policy and Man-  
2 agement Act of 1976 (42 U.S.C. 1712); and the Secretary  
3 of Agriculture shall consider development of wind and  
4 solar energy, as appropriate, in revisions of land and re-  
5 source management plans under section 5 of the Forest  
6 an Rangeland Renewable Resources Planning Act of 1974  
7 (16 U.S.C. 1604). Nothing in this subsection shall pre-  
8 clude the issuance of a right-of-way for the development  
9 of a wind or solar energy project prior to the revision of  
10 a land use plan by the appropriate land management agen-  
11 cy.

12 (g) REPORT TO CONGRESS.—Within 24 months after  
13 the date of enactment of this section, the Secretary of the  
14 Interior shall develop and report to Congress recommenda-  
15 tions on any statutory or regulatory changes the Secretary  
16 believes would assist in the development of renewable en-  
17 ergy on Federal land. The report shall include—

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

23 (2) an analysis of—

24 (A) whether the use of rights-of-ways is  
25 the best means of authorizing use of Federal

1 land for the development of wind and solar en-  
2 ergy, or whether such resources could be better  
3 developed through a leasing system, or other  
4 method;

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

8 (C) any problems, including environmental  
9 concerns, which the Secretary of the Interior or  
10 the Secretary of Agriculture have encountered  
11 in managing wind or solar energy projects on  
12 Federal land, or believe are likely to arise in re-  
13 lation to the development of wind or solar en-  
14 ergy on Federal land;

15 (3) a list, developed in consultation with the  
16 Secretaries of Energy and Defense, of lands under  
17 the jurisdiction of the Departments of Energy and  
18 Defense that would be suitable for development for  
19 wind or solar energy, and recommended statutory  
20 and regulatory mechanisms for such development;  
21 and

22 (4) an analysis, developed in consultation with  
23 the Secretaries of Energy and Commerce, of the po-  
24 tential for development of wind, solar, and ocean en-  
25 ergy on the Outer Continental Shelf, along with rec-



1 ommended statutory and regulatory mechanisms for  
2 such development.

3 **TITLE III—HYDROELECTRIC**  
4 **RELICENSING**

5 **SEC. 301. ALTERNATIVE MANDATORY CONDITIONS AND**  
6 **FISHWAYS.**

7 (a) ALTERNATIVE MANDATORY CONDITIONS.—Sec-  
8 tion 4 of the Federal Power Act (16 U.S.C. 797) is  
9 amended by adding at the end the following:

10 “(h)(1) Whenever any person applies for a license for  
11 any project works within any reservation of the United  
12 States, and the Secretary of the department under whose  
13 supervision such reservation falls deems a condition to  
14 such license to be necessary under the first proviso of sub-  
15 section (e), the license applicant or any other party to the  
16 licensing proceeding may propose an alternative condition.

17 “(2) Notwithstanding the first proviso of subsection  
18 (e), the Secretary of the department under whose super-  
19 vision the reservation falls shall accept the proposed alter-  
20 native condition referred to in paragraph (1), and the  
21 Commission shall include in the license such alternative  
22 condition, if the Secretary of the appropriate department  
23 determines, based on substantial evidence provided by the  
24 party proposing such alternative condition, that the alter-  
25 native condition—

1           “(A) provides no less protection for the reserva-  
2           tion than provided by the condition deemed nec-  
3           essary by the Secretary; and

4           “(B) will either—

5                   “(i) cost less to implement, or

6                   “(ii) result in improved operation of the  
7           project works for electricity production,  
8           as compared to the condition deemed necessary by  
9           the Secretary.

10          “(3) Within 1 year after the enactment of this sub-  
11          section, each Secretary concerned shall, by rule, establish  
12          a process to expeditiously resolve conflicts arising under  
13          this subsection.”.

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

16                  (1) inserting “(a)” before the first sentence;  
17          and

18                  (2) adding at the end the following:

19          “(b)(1) Whenever the Commission shall require a li-  
20          censee to construct, maintain, or operate a fishway pre-  
21          scribed by the Secretary of the Interior or the Secretary  
22          of Commerce under this section, the licensee or any other  
23          party to the proceeding may propose an alternative to such  
24          prescription to construct, maintain, or operate a fishway.

1       “(2) Notwithstanding subsection (a), the Secretary of  
2 the Interior or the Secretary of Commerce, as appropriate,  
3 shall accept and prescribe, and the Commission shall re-  
4 quire, the proposed alternative referred to in paragraph  
5 (1), if the Secretary of the appropriate department deter-  
6 mines, based on substantial evidence provided by the party  
7 proposing such alternative, that the alternative—

8               “(A) will be no less effective than the fishway  
9 initially prescribed by the Secretary, and

10              “(B) will either—

11                      “(i) cost less to implement, or

12                      “(ii) result in improved operation of the  
13 project works for electricity production,

14 as compared to the fishway initially prescribed by  
15 the Secretary.

16       “(3) Within 1 year after the enactment of this sub-  
17 section, the Secretary of the Interior and the Secretary  
18 of Commerce shall each, by rule, establish a process to  
19 expeditiously resolve conflicts arising under this sub-  
20 section.”.

21 **SEC. 302. CHARGES FOR TRIBAL LANDS.**

22       Section 10(e)(1) of the Federal Power Act (16 U.S.C.  
23 803(e)(1) is amended by inserting after the second proviso  
24 the following:

1 “*Provided further*, that the Commission shall not issue a  
2 new or original license for projects involving tribal lands  
3 embraced within Indian reservations until annual charges  
4 required under this section have been fixed.”

5 **SEC. 303. DISPOSITION OF HYDROELECTRIC CHARGES.**

6 Section 17 of the Federal Power Act (16 U.S.C. 810)  
7 is amended by striking “to be expended under the direc-  
8 tion of the Secretary of the Army in the maintenance and  
9 operation of dams and other navigation structures owned  
10 by the United States or in the construction, maintenance,  
11 or operation of headwater or other improvements of navi-  
12 gable waters of the United States.” and inserting the fol-  
13 lowing: “to be expended in the following manner on an  
14 annual basis: (A) fifty-percent of the funds shall be ex-  
15 pended by the Secretary of the Interior pursuant to a  
16 grant program to be established by the Secretary to sup-  
17 port collaborative watershed restoration and education ac-  
18 tivities intended to promote the recovery of candidate,  
19 threatened, and endangered species under the Endangered  
20 Species Act of 1973; and (B) fifty-percent of the funds  
21 shall be expended by the Secretary of Agriculture, acting  
22 through the Chief of the Forest Service, for the Youth  
23 Conservation Corps program.”.

1 **SEC. 304. ANNUAL LICENSES.**

2 Section 15(a) of the Federal Power Act (16 U.S.C.  
3 808(a)) is amended by adding at the end the following:

4 “(4) Prior to issuing a fourth and subsequent  
5 annual license under paragraph (1), the Commission  
6 shall first consult with the Secretary of the Interior  
7 and the Secretary of Commerce, and if the project  
8 is within any reservation, with the Secretary under  
9 whose supervision such reservation falls.

10 “(5) Prior to issuing a fourth and subsequent  
11 annual license under paragraph (1), the Commission  
12 shall publish a written statement setting forth the  
13 reasons why the annual license is needed, and de-  
14 scribing the results of consultation with the Sec-  
15 retary of the Interior, the Secretary of Commerce,  
16 and the Secretary under whose supervision the res-  
17 ervation falls. Such explanation shall also contain  
18 the best judgment of the Commission as to whether  
19 the Commission anticipates issuing an additional an-  
20 nual license.

21 “(6) At least 60 days prior to expiration of the  
22 seventh and subsequent annual licenses issued under  
23 paragraph (1), the Commission shall submit to Con-  
24 gress the written statement required in paragraph  
25 (5).”.

1 **SEC. 305. ENFORCEMENT.**

2 (a) MONITORING AND INVESTIGATIONS OF MANDA-  
3 TORY CONDITIONS AND FISHWAY PRESCRIPTIONS.—The  
4 first sentence of section 31(a) of the Federal Power Act  
5 (16 U.S.C. 823b(a)) is amended to read as follows:  
6 “The Commission shall monitor and investigate compli-  
7 ance with each license and permit issued under this part,  
8 each condition imposed under section 4(e) or 4(h), each  
9 fishway prescription imposed under section 18, and each  
10 exemption granted from any requirement of this part.”

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

14 “After notice and opportunity for public hearing, the Com-  
15 mission may issue such orders as necessary to require  
16 compliance with the terms and conditions of licenses and  
17 permits issued under this part, with conditions imposed  
18 under section 4(e) or 4(h), with fishway prescriptions im-  
19 posed under section 18, and with the terms and conditions  
20 of exemptions granted from any requirement of this part.”

21 **SEC. 306. ESTABLISHMENT OF HYDROELECTRIC RELI-**  
22 **CENSING PROCEDURES.**

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

25 (1) Within 18 months after the date of enact-  
26 ment of this section, the Commission, the Secretary

1 of the Interior, the Secretary of Commerce, and the  
2 Secretary of Agriculture, shall, after consultation  
3 with the interested states and public review and  
4 comment, issue coordinated regulations governing  
5 the issuance of a license under section 15 of the  
6 Federal Power Act (16 U.S.C. 808).

7 (2) Such regulations shall provide for—

8 (A) the participation of the Commission in  
9 the pre-application environmental scoping proc-  
10 ess conducted by the resource agencies pursu-  
11 ant to section 15(b) of the Federal Power Act  
12 (16 U.S.C. 808(b)), sufficient to allow the Com-  
13 mission and the resource agencies to coordinate  
14 environmental reviews and other regulatory pro-  
15 cedures of the Commission and the resource  
16 agencies under Part I of the Federal Power  
17 Act, and under the National Environmental  
18 Policy Act of 1969 (42 U.S.C. 4321 et seq.).

19 (B) issuance by the resource agencies of  
20 draft and final mandatory conditions under sec-  
21 tion 4(e) of the Federal Power Act (16 U.S.C.  
22 797(e)), and draft and final fishway prescrip-  
23 tions under section 18 of the Federal Power  
24 Act (16 U.S.C. 811);

1           (C) to the maximum extent possible, iden-  
2           tification by the Commission staff in the draft  
3           analysis of the license application conducted  
4           under the National Environmental Policy Act,  
5           of all license articles and license conditions the  
6           Commission is likely to include in the license;

7           (D) coordination by the Commission and  
8           the resource agencies of analysis under the Na-  
9           tional Environmental Policy Act for final license  
10          articles and conditions recommended by Com-  
11          mission staff, and the final mandatory condi-  
12          tions and fishway prescriptions of the resource  
13          agencies;

14          (E) procedures for ensuring coordination  
15          and sharing, to the maximum extent possible, of  
16          information, studies, data and analysis by the  
17          Commission and the resource agencies to reduce  
18          the need for duplicative studies and analysis by  
19          license applicants and other parties to the li-  
20          cense proceeding; and

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



1 (b) PROCEDURES OF THE COMMISSION.—Within 18  
2 months after the date of enactment of this section, the  
3 Commission shall, after consultation with the interested  
4 federal agencies and states and after public comment and  
5 review, issue additional regulations governing the issuance  
6 of a license under section 15 of the Federal Power Act  
7 (16 U.S.C. 808). Such regulations shall—

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

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

12 (B) advanced notice to resource agencies of  
13 the issuance of the Ready for Environmental  
14 Analysis Notice requesting submission of rec-  
15 ommendations, conditions, prescriptions, and  
16 comments;

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

21 (D) responses to petitions, motions, com-  
22 plaints and requests for rehearing;

23 (2) set deadlines for an applicant to conduct all  
24 needed resource studies in support of its license ap-  
25 plication;

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

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

8   **SEC. 307. RELICENSING STUDY.**

9           (a) IN GENERAL.—The Federal Energy Regulatory  
10          Commission shall, jointly with the Secretary of Commerce,  
11          the Secretary of the Interior, and the Secretary of Agri-  
12          culture, conduct a study of all new licenses issued for ex-  
13          isting projects under section 15 of the Federal Power Act  
14          (16 U.S.C. 808) since January 1, 1994.

15          (b) SCOPE.—The study shall analyze:

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

19               (2) the additional cost to the licensee attrib-  
20               utable to new license conditions;

21               (3) the change in generating capacity attrib-  
22               utable to new license conditions;

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

1           (5) significant unmitigated environmental dam-  
2           age of the project and costs to mitigate such dam-  
3           age; and

4           (6) litigation arising from the issuance or fail-  
5           ure to issue new licenses for existing projects under  
6           section 15 of the Federal Power Act or the imposi-  
7           tion or failure to impose new license conditions.

8           (c) DEFINITION.—As used in this section, the term  
9           “new license condition” means any condition imposed  
10          under—

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

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

15           (2) section 10(e) of the Federal Power Act (16  
16          U.S.C. 803(e)),

17           (3) section 10(j) of the Federal Power Act (16  
18          U.S.C. 803(j)),

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

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

23           (d) CONSULTATION.—The Commission shall give in-  
24          terested persons and licensees an opportunity to submit  
25          information and views in writing.

1 (e) REPORT.—The Commission shall report its find-  
 2 ings to the Committee on Energy and Natural Resources  
 3 of the United States Senate and the Committee on Energy  
 4 and Commerce of the House of Representatives not later  
 5 than 24 months after the date of enactment of this sec-  
 6 tion.

7 **SEC. 308. DATA COLLECTION PROCEDURES.**

8 Within 24 months after the date of enactment of this  
 9 section, the Federal Energy Regulatory Commission, the  
 10 Secretary of the Interior, the Secretary of Commerce, and  
 11 the Secretary of Agriculture shall jointly develop proce-  
 12 dures for ensuring complete and accurate information con-  
 13 cerning the time and cost to parties in the hydroelectric  
 14 licensing process under part I of the Federal Power Act  
 15 (16 U.S.C. 791 et seq.). Such data shall be published reg-  
 16 ularly, but no less frequently than every three years.

17 **TITLE IV—INDIAN ENERGY**

18 **SEC. 401. COMPREHENSIVE INDIAN ENERGY PROGRAM.**

19 Title XXVI of the Energy Policy Act of 1992 (25  
 20 U.S.C. 3501–3506) is amended by adding after section  
 21 2606 the following:

22 **“SEC. 2607. COMPREHENSIVE INDIAN ENERGY PROGRAM.**

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

24 **“(1)** the term ‘Director’ means the Director of  
 25 the Office of Indian Energy Policy and Programs es-

1       tablished by section 217 of the Department of En-  
2       ergy Organization Act, and

3             “(2) the term ‘Indian land’ means—

4                     “(A) any land within the limits of an In-  
5                     dian reservation, pueblo, or rancheria;

6                     “(B) any land not within the limits of an  
7                     Indian reservation, pueblo, or rancheria whose  
8                     title on the date of enactment of this section  
9                     was held—

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

12                             “(ii) by an Indian tribe subject to re-  
13                             striction by the United States against  
14                             alienation, or

15                             “(iii) by a dependent Indian commu-  
16                             nity; and

17                     “(C) land conveyed to an Alaska Native  
18                     Corporation under the Alaska Native Claims  
19                     Settlement Act.

20       “(b) INDIAN ENERGY EDUCATION PLANNING AND  
21       MANAGEMENT ASSISTANCE.—

22             “(1) The Director shall establish programs  
23             within the Office of Indian Energy Policy and Pro-  
24             grams to assist Indian tribes in meeting their energy

1 education, research and development, planning, and  
2 management needs.

3 “(2) The Director may make grants, on a com-  
4 petitive basis, to an Indian tribe for—

5 “(A) renewable energy, energy efficiency,  
6 and conservation programs;

7 “(B) studies and other activities sup-  
8 porting tribal acquisition of energy supplies,  
9 services, and facilities;

10 “(C) planning, constructing, developing,  
11 operating, maintaining, and improving tribal  
12 electrical generation, transmission, and dis-  
13 tribution facilities; and

14 “(D) developing, constructing, and inter-  
15 connecting electric power transmission facilities  
16 with transmission facilities owned and operated  
17 by a Federal power marketing agency or an  
18 electric utility that provides open access trans-  
19 mission service.

20 “(3) The Director may develop, in consultation  
21 with Indian tribes, a formula for making grants  
22 under this section. The formula may take into ac-  
23 count the following—

24 “(A) the total number of acres of Indian  
25 land owned by an Indian tribe;

1           “(B) the total number of households on  
2           the Indian tribe’s Indian land;

3           “(C) the total number of households on the  
4           Indian tribe’s Indian land that have no elec-  
5           tricity service or are under-served; and

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

8           “(4) In making a grant under paragraph (2),  
9           the Director shall give priority to an application re-  
10          ceived from an Indian tribe that is not served or is  
11          served inadequately by an electric utility, as that  
12          term is defined in section 3(4) of the Public Utility  
13          Regulatory Policies Act of 1978 (16 U.S.C.  
14          2602(4)), or by a person, State agency, or any other  
15          non-federal entity that owns or operates a local dis-  
16          tribution facility used for the sale of electric energy  
17          to an electric consumer.

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

21          “(6) The Secretary is authorized to promulgate  
22          such regulations as the Secretary determines to be  
23          necessary to carry out the provisions of this sub-  
24          section.

25          “(c) LOAN GUARANTEE PROGRAM.—

1           “(1) AUTHORITY.—The Secretary may guar-  
2           antee not more than 90 percent of the unpaid prin-  
3           cipal and interest due on any loan made to any In-  
4           dian tribe for energy development, including the  
5           planning, development, construction, and mainte-  
6           nance of electrical generation plants, and for trans-  
7           mission and delivery mechanisms for electricity pro-  
8           duced on Indian land. A loan guaranteed under this  
9           subsection shall be made by—

10                   “(A) a financial institution subject to the  
11                   examination of the Secretary; or

12                   “(B) an Indian tribe, from funds of the In-  
13                   dian tribe, to another Indian tribe.

14           “(2) AVAILABILITY OF APPROPRIATIONS.—  
15           Amounts appropriated to cover the cost of loan  
16           guarantees shall be available without fiscal year limi-  
17           tation to the Secretary to fulfill obligations arising  
18           under this subsection.

19           “(3) AUTHORIZATION OF APPROPRIATIONS.—

20                   “(A) There are authorized to be appro-  
21                   priated to the Secretary such sums as may be  
22                   necessary to cover the cost of loan guarantees,  
23                   as defined by section 502(5) of the Federal  
24                   Credit Reform Act of 1990 (2 U.S.C. 661a(5)).



1           “(B) There are authorized to be appro-  
2           priated to the Secretary such sums as may be  
3           necessary to cover the administrative expenses  
4           related to carrying out the loan guarantee pro-  
5           gram established by this subsection.

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

10          “(5) REGULATIONS.—The Secretary is author-  
11          ized to promulgate such regulations as the Secretary  
12          determines to be necessary to carry out the provi-  
13          sions of this subsection.

14          “(d) INDIAN ENERGY PREFERENCE.—(1) An agency  
15          or department of the United States Government may give,  
16          in the purchase of electricity, oil, gas, coal, or other energy  
17          product or by-product, preference in such purchase to an  
18          energy and resource production enterprise, partnership,  
19          corporation, or other type of business organization major-  
20          ity or wholly owned and controlled by a tribal government.

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

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

3               “(1) limit the discretion vested in an Adminis-  
4 trator of a Federal power marketing agency to mar-  
5 ket and allocate Federal power, or

6               “(2) alter Federal laws under which a Federal  
7 power marketing agency markets, allocates, or pur-  
8 chases power.”.

9 **SEC. 402. OFFICE OF INDIAN ENERGY POLICY AND PRO-**  
10 **GRAMS.**

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

13       “OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

14       “SEC. 217. (a) There is established within the De-  
15 partment an Office of Indian Energy Policy and Pro-  
16 grams. This Office shall be headed by a Director, who  
17 shall be appointed by the Secretary and compensated at  
18 the rate equal to that of level IV of the Executive Schedule  
19 under section 5315 of Title 5, United States Code.

20       “(b) The Director shall provide, direct, foster, coordi-  
21 nate, and implement energy planning, education, manage-  
22 ment, conservation, and delivery programs of the Depart-  
23 ment that—

24               “(1) promote tribal energy efficiency and utili-  
25 zation;

1           “(2) modernize and develop, for the benefit of  
2           Indian tribes, tribal energy and economic infrastruc-  
3           ture related to natural resource development and  
4           electrification;

5           “(3) preserve and promote tribal sovereignty  
6           and self determination related to energy matters and  
7           energy deregulation;

8           “(4) lower or stabilize energy costs; and

9           “(5) electrify tribal members’ homes and tribal  
10          lands.

11          “(c) The Director shall carry out the duties assigned  
12          the Secretary or the Director under title XXVI of the En-  
13          ergy Policy Act of 1992 (25 U.S.C. 3501 et seq.).”.

14          **SEC. 403. CONFORMING AMENDMENTS.**

15          (a) AUTHORIZATION OF APPROPRIATIONS.—Section  
16          2603(c) of the Energy Policy Act of 1992 (25 U.S.C.  
17          3503(c)) is amended to read as follows:

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

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

“Sec. 217. Office of Indian Energy Policy and Programs.”.

1 (c) EXECUTIVE SCHEDULE.—Section 5315 of title 5,  
2 United States Code, is amended by inserting “Director,  
3 Office of Indian Energy Policy and Programs, Depart-  
4 ment of Energy.” after “Inspector General, Department  
5 of Energy.”.

6 **SEC. 404. SITING ENERGY FACILITIES ON TRIBAL LANDS.**

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

8 (1) INDIAN TRIBE.—The term “Indian tribe”  
9 means any Indian tribe, band, nation, or other orga-  
10 nized group or community, which is recognized as el-  
11 igible for the special programs and services provided  
12 by the United States to Indians because of their sta-  
13 tus as Indians, except that such term does not in-  
14 clude any Regional Corporation as defined in section  
15 3(g) of the Alaska Native Claims Settlement Act (43  
16 U.S.C. 1602(g)).

17 (2) INTERESTED PARTY.—The term “interested  
18 party” means a person whose interests could be ad-  
19 versely affected by the decision of an Indian tribe  
20 to grant a lease or right-of-way pursuant to this sec-  
21 tion.

22 (3) PETITION.—The term “petition” means a  
23 written request submitted to the Secretary for the  
24 review of an action (or inaction) of the Indian tribe

1 that is claimed to be in violation of the approved  
2 tribal regulations;

3 (4) RESERVATION.—The term “reservation”  
4 means—

5 (A) with respect to a reservation in a State  
6 other than Oklahoma, all land that has been set  
7 aside or that has been acknowledged as having  
8 been set aside by the United States for the use  
9 of an Indian tribe, the exterior boundaries of  
10 which are more particularly defined in a final  
11 tribal treaty, agreement, executive order, federal  
12 statute, secretarial order, or judicial determina-  
13 tion;

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

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

18 (ii) within the boundaries of the last  
19 reservation of such tribe that was estab-  
20 lished by treaty, executive order, or secre-  
21 tarial order.

22 (5) SECRETARY.—The term “Secretary” means  
23 the Secretary of the Interior.

24 (6) TRIBAL LANDS.—The term “tribal lands”  
25 means any tribal trust lands or other lands owned

1 by an Indian tribe that are within a reservation, or  
2 tribal trust lands located contiguous thereto.

3 (b) LEASES INVOLVING GENERATION, TRANS-  
4 MISSION, DISTRIBUTION OR ENERGY PROCESSING FA-  
5 CILITIES.—An Indian tribe may grant a lease of tribal  
6 land for electric generation, transmission, or distribution  
7 facilities, or facilities to process or refine renewable or  
8 nonrenewable energy resources developed on tribal lands,  
9 and such leases shall not require the approval of the Sec-  
10 retary if the lease is executed under tribal regulations ap-  
11 proved by the Secretary under this subsection and the  
12 term of the lease does not exceed 30 years.

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

19 (1) the right-of-way is executed under and com-  
20 plies with tribal regulations approved by the Sec-  
21 retary and the term of the right-of-way does not ex-  
22 ceed 30 years; and

23 (2) the pipeline or electric transmission or dis-  
24 tribution line serves—

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

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

6 (d) RENEWALS.—Leases or rights-of-way entered  
7 into under this subsection may be renewed at the discre-  
8 tion of the Indian tribe in accordance with the require-  
9 ments of this section.

10 (e) TRIBAL REGULATION REQUIREMENTS.—

11 (1) The Secretary shall have the authority to  
12 approve or disapprove tribal regulations required  
13 under this subsection. The Secretary shall approve  
14 such tribal regulations if they are comprehensive in  
15 nature, including provisions that address—

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

18 (B) term of the conveyance;

19 (C) amendments and renewals;

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

22 (E) technical or other relevant require-  
23 ments;

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

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

3 (H) final approval authority.

4 (2) No lease or right-of-way shall be valid un-  
5 less authorized in compliance with the approved trib-  
6 al regulations.

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

11 (A) an identification and evaluation of all  
12 significant environmental impacts of the pro-  
13 posed action as compared to a no action alter-  
14 native;

15 (B) identification of proposed mitigation;

16 (C) a process for ensuring that the public  
17 is informed of and has an opportunity to com-  
18 ment on the proposed action prior to tribal ap-  
19 proval of the lease or right-of-way; and

20 (D) sufficient administrative support and  
21 technical capability to carry out the environ-  
22 mental review process.

23 (4) The Secretary shall review and approve or  
24 disapprove the regulations of the Indian tribe within  
25 180 days of the submission of such regulations to



1 the Secretary. Any disapproval of such regulations  
2 by the Secretary shall be accompanied by written  
3 documentation that sets forth the basis for the dis-  
4 approval. The 180-day period may be extended by  
5 the Secretary after consultation with the Indian  
6 tribe.

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

11 (A) a copy of the lease or right-of-way doc-  
12 ument and all amendments and renewals there-  
13 to; and

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

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

1           (7)(A) An interested party may, after exhaus-  
2           tion of tribal remedies, submit, in a timely manner,  
3           a petition to the Secretary to review the compliance  
4           of the Indian tribe with any tribal regulations ap-  
5           proved under this subsection. If upon such review,  
6           the Secretary determines that the regulations were  
7           violated, the Secretary may take such action as may  
8           be necessary to remedy the violation, including re-  
9           scinding or holding the lease or right-of-way in abey-  
10          ance until the violation is cured. The Secretary may  
11          also rescind the approval of the tribal regulations  
12          and reassume the responsibility for approval of  
13          leases or rights-of-way associated with the facilities  
14          addressed in this section.

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

17                   (i) make a written determination with re-  
18                   spect to the regulations that have been violated;

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

22                   (iii) prior to the exercise of any remedy or  
23                   the rescission of the approval of the regulations  
24                   involved and reassumption of the lease or right-  
25                   of-way approval responsibility, provide the In-

1           dian tribe with a hearing and a reasonable op-  
2           portunity to cure the alleged violation.

3           (C) The tribe shall retain all rights to appeal as  
4           provided by regulations promulgated by the Sec-  
5           retary.

6           (f) AGREEMENTS.—

7           (1) Agreements between an Indian tribe and a  
8           business entity that are directly associated with the  
9           development of electric generation, transmission or  
10          distribution facilities, or facilities to process or refine  
11          renewable or nonrenewable energy resources devel-  
12          oped on tribal lands, shall not separately require the  
13          approval of the Secretary pursuant to section 18 of  
14          title 25, United States Code, so long as the activity  
15          that is the subject of the agreement has been the  
16          subject of an environmental review process pursuant  
17          to subsection (e) of this section.

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

22          (g) DISCLAIMER.—Nothing in this section is intended  
23          to modify or otherwise affect the applicability of any provi-  
24          sion of the Indian Mineral Leasing Act of 1938 (25 U.S.C.  
25          396a–396g); Indian Mineral Development Act of 1982 (25

1 U.S.C. 2101–2108); Surface Mining Control and Rec-  
2 lamation Act of 1977 (30 U.S.C. 1201–1328); any amend-  
3 ments thereto; or any other laws not specifically addressed  
4 in this section.

5 **SEC. 405. INDIAN MINERAL DEVELOPMENT ACT REVIEW.**

6 (a) IN GENERAL.—The Secretary of the Interior shall  
7 conduct a review of the activities that have been conducted  
8 by the governments of Indian tribes under the authority  
9 of the Indian Mineral Development Act of 1982 (25  
10 U.S.C. 2101 et seq.).

11 (b) REPORT.—Not later than one year after the date  
12 of the enactment of this Act, the Secretary shall transmit  
13 to the Committee on Resources of the House of Represent-  
14 atives and the Committee on Indian Affairs and the Com-  
15 mittee on Energy and Natural Resources of the Senate  
16 a report containing—

17 (1) the results of the review;

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

21 (3) an analysis of the barriers to the develop-  
22 ment of energy resources on Indian land, including  
23 federal policies and regulations, and make rec-  
24 ommendations regarding the removal of those bar-  
25 riers.

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

5 **SEC. 406. RENEWABLE ENERGY STUDY.**

6           (a) IN GENERAL.—Not later than 2 years after the  
7 date of the enactment of this Act, and once every 2 years  
8 thereafter, the Secretary of Energy shall transmit to the  
9 Committees on Energy and Commerce and Resources of  
10 the House of Representatives and the Committees on En-  
11 ergy and Natural Resources and Indian Affairs of the Sen-  
12 ate a report on energy consumption and renewable energy  
13 development potential on Indian land. The report shall  
14 identify barriers to the development of renewable energy  
15 by Indian tribes, including federal policies and regulations,  
16 and make recommendations regarding the removal of such  
17 barriers.

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

1 **SEC. 407. FEDERAL POWER MARKETING ADMINISTRA-**  
 2 **TIONS.**

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

6 **“SEC. 2608. FEDERAL POWER MARKETING ADMINISTRA-**  
 7 **TIONS.**

8 “(a) DEFINITION OF ADMINISTRATOR.—In this sec-  
 9 tion, the term ‘Administrator’ means—

10 “(1) the Administrator of the Bonneville Power  
 11 Administration; or

12 “(2) the Administrator of the Western Area  
 13 Power Administration.

14 “(b) ASSISTANCE FOR TRANSMISSION STUDIES.—

15 “(1) Each Administrator may provide technical  
 16 assistance to Indian tribes seeking to use the high-  
 17 voltage transmission system for delivery of electric  
 18 power. The costs of such technical assistance shall  
 19 be funded—

20 “(A) by the Administrator using non-reim-  
 21 bursable funds appropriated for this purpose, or

22 “(B) by the Indian tribe.

23 “(2) PRIORITY FOR ASSISTANCE FOR TRANS-  
 24 MISSION STUDIES.—In providing discretionary as-  
 25 sistance to Indian tribes under paragraph (1), each  
 26 Administrator shall give priority in funding to In-

1       dian tribes that have limited financial capability to  
2       conduct such studies.

3       “(c) POWER ALLOCATION STUDY.—

4               “(1) Not later than 2 years after the date of  
5       enactment of this Act, the Secretary of Energy shall  
6       transmit to the Committees on Energy and Com-  
7       merce and Resources of the House of Representa-  
8       tives and the Committees on Energy and Natural  
9       Resources and Indian Affairs of the Senate a report  
10      on Indian tribes’ utilization of federal power alloca-  
11      tions of the Western Area Power Administration, or  
12      power sold by the Southwestern Power Administra-  
13      tion, and the Bonneville Power Administration to or  
14      for the benefit of Indian tribes in their service areas.  
15      The report shall identify—

16               “(A) the amount of power allocated to  
17      tribes by the Western Area Power Administra-  
18      tion, and how the benefit of that power is uti-  
19      lized by the tribes;

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

22               “(C) existing barriers that impede tribal  
23      access to and utilization of federal power, and  
24      opportunities to remove such barriers and im-  
25      prove the ability of the Power Marketing Ad-

1           ministration to facilitate the utilization of fed-  
2           eral power by Indian tribes.

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

7           “(d) AUTHORIZATION FOR APPROPRIATION.—There  
8           are authorized to be appropriated to the Secretary of En-  
9           ergy such sums as may be necessary to carry out the pur-  
10          poses of this section.”.

11   **SEC. 408. FEASIBILITY STUDY OF COMBINED WIND AND HY-**  
12                           **DROPOWER DEMONSTRATION PROJECT.**

13          (a) STUDY.—The Secretary of Energy, in coordina-  
14          tion with the Secretary of the Army and the Secretary of  
15          the Interior, shall conduct a study of the cost and feasi-  
16          bility of developing a demonstration project that would use  
17          wind energy generated by Indian tribes and hydropower  
18          generated by the Army Corps of Engineers on the Mis-  
19          souri River to supply firming power to the Western Area  
20          Power Administration.

21          (b) SCOPE OF STUDY.—The study shall—

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



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

4           (3) assess the wind energy resource potential on  
5           tribal lands and projected cost savings through a  
6           blend of wind and hydropower over a thirty-year pe-  
7           riod;

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

12          (5) determine seasonal capacity needs and asso-  
13          ciated transmission upgrades for integration of tribal  
14          wind generation; and

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

17          (c) REPORT.—The Secretary of Energy and Sec-  
18          retary of the Army shall submit a report to Congress not  
19          later than one year after the date of enactment of this  
20          title. The Secretaries shall include in the report—

21                 (1) an analysis of the potential energy cost sav-  
22                 ings to the customers of the Western Area Power  
23                 Administration through the blend of wind and hy-  
24                 dropower;

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

5           (3) recommendations for a demonstration project  
6           which the Western Area Power Administration could  
7           carry out in partnership with an Indian tribal gov-  
8           ernment or tribal government energy consortium to  
9           demonstrate the feasibility and potential of using  
10          wind energy produced on Indian lands to supply  
11          firming energy to the Western Area Power Adminis-  
12          tration or other Federal power marketing agency;  
13          and

14          (4) an identification of the economic and environ-  
15          mental benefits to be realized through such a fed-  
16          eral-tribal partnership and identification of how such  
17          a partnership could contribute to the energy security  
18          of the United States.

19          (d) CONSULTATION.—The Secretary shall consult  
20          with Indian tribes on a government-to-government basis  
21          in developing the report and recommendations provided in  
22          this section.

23          (e) AUTHORIZATION OF APPROPRIATIONS.—There  
24          are authorized to be appropriated \$500,000 to carry out  
25          this section, which shall remain available until expended.

1 All costs incurred by the Western Area Power Administra-  
2 tion associated with performing the tasks required under  
3 this section shall be non-reimbursable.

4 **TITLE V—NUCLEAR POWER**  
5 **Subtitle A—Price-Anderson Act**  
6 **Reauthorization**

7 **SEC. 501. SHORT TITLE.**

8 This subtitle may be cited as the “Price-Anderson  
9 Amendments Act of 2002”.

10 **SEC. 502. EXTENSION OF DEPARTMENT OF ENERGY INDEM-**  
11 **NIFICATION AUTHORITY.**

12 Section 170 d.(1)(A) of the Atomic Energy Act of  
13 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking  
14 “, until August 1, 2002,”.

15 **SEC. 503. DEPARTMENT OF ENERGY LIABILITY LIMIT.**

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

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

22 “(A) may require the contractor to provide  
23 and maintain financial protection of such a type  
24 and in such amounts as the Secretary shall de-  
25 termine to be appropriate to cover public liabil-

1           ity arising out of or in connection with the con-  
2           tractual activity, and

3                   “(B) shall indemnify the persons indem-  
4           nified against such claims above the amount of  
5           the financial protection required, in the amount  
6           of \$10,000,000,000 (subject to adjustment for  
7           inflation under subsection t.), in the aggregate,  
8           for all persons indemnified in connection with  
9           such contract and for each nuclear incident, in-  
10          cluding such legal costs of the contractor as are  
11          approved by the Secretary.”.

12          (b) CONTRACT AMENDMENTS.—Section 170 d. of the  
13   Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further  
14   amended by striking paragraph (3) and inserting the fol-  
15   lowing:

16                   “(3) All agreements of indemnification under  
17          which the Department of Energy (or its predecessor  
18          agencies) may be required to indemnify any person  
19          under this section shall be deemed to be amended,  
20          on the date of the enactment of the Price-Anderson  
21          Amendments Act of 2002, to reflect the amount of  
22          indemnity for public liability and any applicable fi-  
23          nancial protection required of the contractor under  
24          this subsection.”.

1 (c) LIABILITY LIMIT.—Section 170 e.(1)(B) of the  
2 Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(1)(B)) is  
3 amended by striking “paragraph (3)” and inserting “para-  
4 graph (2)(B)”.

5 **SEC. 504. INCIDENTS OUTSIDE THE UNITED STATES.**

6 (a) AMOUNT OF INDEMNIFICATION.—Section 170  
7 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C.  
8 2210(d)(5)) is amended by striking “\$100,000,000” and  
9 inserting “\$500,000,000”.

10 (b) LIABILITY LIMIT.—Section 170 e.(4) of the  
11 Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is  
12 amended by striking “\$100,000,000” and inserting  
13 “\$500,000,000”.

14 **SEC. 505. REPORTS.**

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

18 **SEC. 506. INFLATION ADJUSTMENT.**

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

21 (1) by renumbering paragraph (2) as paragraph

22 (3); and

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

24 “(2) The Secretary shall adjust the amount of  
25 indemnification provided under an agreement of in-

1 demnification under subsection d. not less than once  
2 during each 5-year period following July 1, 2002, in  
3 accordance with the aggregate percentage change in  
4 the Consumer Price Index since—

5 “(A) such date of enactment, in the case  
6 of the first adjustment under this paragraph; or

7 “(B) the previous adjustment under this  
8 paragraph.”.

9 **SEC. 507. CIVIL PENALTIES.**

10 (a) **REPEAL OF AUTOMATIC REMISSION.**—Section  
11 234A b.(2) of the Atomic Energy of 1954 (42 U.S.C.  
12 2282a (b)(2)) is amended by striking the last sentence.

13 (b) **LIMITATION FOR NOT-FOR-PROFIT INSTITU-**  
14 **TIONS.**—Subsection d. of section 234A of the Atomic En-  
15 ergy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read  
16 as follows:

17 “d. (1) Notwithstanding subsection a., a civil penalty  
18 for a violation under subsection a. shall not exceed the  
19 amount of the fee paid under the contract under which  
20 such violation occurs for any not-for-profit contractor,  
21 subcontractor, or supplier.

22 “(2) For purposes of this section, the term ‘not-for-  
23 profit’ means that no part of the net earnings of the con-  
24 tractor, subcontractor, or supplier inures, or may lawfully

1 inure, to the benefit of any natural person or for-profit  
2 artificial person.”.

3 (c) EFFECTIVE DATE.—The amendments made by  
4 this section shall not apply to any violation of the Atomic  
5 Energy Act of 1954 occurring under a contract entered  
6 into before the date of enactment of this section.

7 **SEC. 508. EFFECTIVE DATE.**

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

11 **Subtitle B—Miscellaneous**  
12 **Provisions**

13 **SEC. 511. URANIUM SALES.**

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

17 “(d) INVENTORY SALES.—(1) In addition to the  
18 transfers authorized under subsections (b), (c), and (e),  
19 the Secretary may, from time to time, sell or transfer ura-  
20 nium (including natural uranium concentrates, natural  
21 uranium hexafluoride, enriched uranium, and depleted  
22 uranium) from the Department of Energy’s stockpile.

23 “(2) Except as provided in subsections (b), (c),  
24 and (e), the Secretary may not deliver uranium in

1 any form for consumption by end users in any year  
 2 in excess of the following amounts:

**“Annual Maximum Deliveries to End Users**

<b>“Year:</b>	<b>(Million lbs. U<sub>3</sub>O<sub>8</sub> equivalent)</b>
2003 through 2009 .....	3
2010 .....	5
2011 .....	5
2012 .....	7
2013 and each year thereafter .....	10.

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

6 “(A) the President determines that the  
 7 material is not necessary for national security  
 8 needs;

9 “(B) the Secretary determines, based on  
 10 the written views of the Secretary of State and  
 11 the Assistant to the President for National Se-  
 12 curity Affairs, that the sale or transfer will not  
 13 adversely affect the national security interests  
 14 of the United States;

15 “(C) the Secretary determines that the  
 16 sale of the material will not have an adverse  
 17 material impact on the domestic uranium min-  
 18 ing, conversion, or enrichment industry, taking  
 19 into account the sales of uranium under the  
 20 Russian HEU Agreement and the Suspension  
 21 Agreement; and



1           “(D) the price paid to the Secretary will  
2           not be less than the fair market value of the  
3           material.”.

4           (b) EXEMPT TRANSFERS AND SALES.—Section  
5 3112(e) of the USEC Privatization Act (42 U.S.C.  
6 2297h–10(e)) is amended to read as follows:

7           “(e) EXEMPT SALES OR TRANSFERS.—Notwith-  
8 standing subsection (d)(2), the Secretary may transfer or  
9 sell uranium—

10           “(1) to the Tennessee Valley Authority for use  
11 pursuant to the Department of Energy’s highly en-  
12 riched uranium or tritium program, to the extent  
13 provided by law;

14           “(2) to research and test reactors under the  
15 University Reactor Fuel Assistance and Support  
16 Program or the Reduced Enrichment for Research  
17 and Test Reactors Program;

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

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

1 “(5) to any person for national security pur-  
2 poses, as determined by the Secretary.”.

3 **SEC. 512. REAUTHORIZATION OF THORIUM REIMBURSE-**  
4 **MENT.**

5 (a) REIMBURSEMENT OF THORIUM LICENSEES.—  
6 Section 1001(b)(2)(C) of the Energy Policy Act of 1992  
7 (42 U.S.C. 2296a) is amended—

8 (1) by striking “\$140,000,000” and inserting  
9 “\$365,000,000”; and

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

12 “(i) \$90,000,000 in fiscal year 2002.

13 “(ii) \$55,000,000 in fiscal year 2003.

14 “(iii) \$20,000,000 in fiscal year 2004.

15 “(iv) \$20,000,000 in fiscal year 2005.

16 “(v) \$20,000,000 in fiscal year 2006.

17 “(vi) \$20,000,000 in fiscal year 2007.

18 Any amounts authorized to be paid in a fiscal year  
19 under this subparagraph that are not paid in that  
20 fiscal year may be paid in subsequent fiscal years.”.

21 (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
22 1003(a) of the Energy Policy Act of 1992 (42 U.S.C.  
23 2296a–2) is amended by striking “\$490,000,000” and in-  
24 serting “\$715,000,000”.

1           (c) DECONTAMINATION AND DECOMMISSIONING  
2 FUND.—Section 1802(a) of the Atomic Energy Act of  
3 1954 (42 U.S.C. 2297g–1(a)) is amended—

4           (1) by striking “\$488,333,333” and inserting  
5           “\$518,233,333”; and

6           (2) by inserting after “inflation” the following:  
7           “beginning on the date of enactment of the Energy  
8           Policy Act of 1992”.

9 **SEC. 513. FAST FLUX TEST FACILITY.**

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

12           (1) any atomic energy defense activity,

13           (2) any space-related mission, or

14           (3) any program for the production or utiliza-  
15 tion of nuclear material if the Secretary has deter-  
16 mined, in a record of decision, that the program can  
17 be carried out at existing operating facilities.

1 **DIVISION—DOMESTIC OIL AND**  
2 **GAS PRODUCTION AND**  
3 **TRANSPORTATION**  
4 **TITLE VI—OIL AND GAS**  
5 **PRODUCTION**

6 **SEC. 601. PERMANENT AUTHORITY TO OPERATE THE STRA-**  
7 **TEGIC PETROLEUM RESERVE.**

8 (a) AMENDMENT TO TITLE I OF THE ENERGY POL-  
9 ICY AND CONSERVATION ACT.—Title I of the Energy Pol-  
10 icy and Conservation Act (42 U.S.C. 6211 et seq.) is  
11 amended—

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

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

17 (2) by striking part E (42 U.S.C. 6251; relat-  
18 ing to the expiration of title I of the Act) and its  
19 heading.

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

24 (1) by striking section 256(h) (42 U.S.C.  
25 6276(h)) and inserting—

1       “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to the Secretary such  
3 sums as may be necessary to carry out this part, to remain  
4 available until expended.”.

5           (2) by striking section 273(e) (42 U.S.C.  
6 6283(e); relating to the expiration of summer fill  
7 and fuel budgeting programs); and

8           (3) by striking part D (42 U.S.C. 6285; relat-  
9 ing to the expiration of title II of the Act) and its  
10 heading.

11       (c) TECHNICAL AMENDMENTS.—The table of con-  
12 tents for the Energy Policy and Conservation Act is  
13 amended by striking the items relating to part D of title  
14 I and part D of title II.

15 **SEC. 602. FEDERAL ONSHORE LEASING PROGRAMS FOR**  
16 **OIL AND GAS.**

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

21           (1) ensure expeditious compliance with the re-  
22 quirements section 102(2)(C) of the National Envi-  
23 ronmental Policy Act of 1969 (42 U.S.C.  
24 4332(2)(C));

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

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

5           (4) improve inspection and enforcement activi-  
6           ties related to oil and gas leases.

7           (b) AUTHORIZATION OF APPROPRIATIONS.—For the  
8           purpose of carrying out paragraphs (1) through (4) of  
9           subsection (a), there are authorized to be appropriated to  
10          the Secretary of the Interior \$60,000,000 for each of the  
11          fiscal years 2003 through 2006, in addition to amounts  
12          otherwise authorized to be appropriated for the purpose  
13          of carrying out section 17 of the Mineral Leasing Act (30  
14          U.S.C. 226).

15          **SEC. 603. OIL AND GAS LEASE ACREAGE LIMITATIONS.**

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

1 **SEC. 604. ORPHANED AND ABANDONED WELLS ON FED-**  
2 **ERAL LAND.**

3 (a) ESTABLISHMENT.—(1) The Secretary of the Inte-  
4 rior, in cooperation with the Secretary of Agriculture, shall  
5 establish a program to ensure within three years after the  
6 date of enactment of this Act, remediation, reclamation,  
7 and closure of orphaned oil and gas wells located on lands  
8 administered by the land management agencies within the  
9 Department of the Interior and the U.S. Forest Service  
10 that are—

11 (A) abandoned;

12 (B) orphaned; or

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

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

19 (3) The program shall provide that responsible par-  
20 ties be identified wherever possible and that the costs of  
21 remediation be recovered.

22 (4) In carrying out the program, the Secretary of the  
23 Interior shall work cooperatively with the Secretary of Ag-  
24 riculture and the states within which the federal lands are  
25 located, and shall consult with the Secretary of Energy,  
26 and the Interstate Oil and Gas Compact Commission.

1 (b) PLAN.—Within six months from the date of en-  
2 actment of this section, the Secretary of the Interior, in  
3 cooperation with the Secretary of Agriculture, shall pre-  
4 pare a plan for carrying out the program established  
5 under subsection (a). Copies of the plan shall be trans-  
6 mitted to the Committee on Energy and Natural Re-  
7 sources of the Senate and the Committee on Resources  
8 of the House of Representatives.

9 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the Secretary of the  
11 Interior \$5,000,000 for each of fiscal years 2003 through  
12 2005 to carry out the activities provided for in this sec-  
13 tion.

14 **SEC. 605. ORPHANED AND ABANDONED OIL AND GAS WELL**  
15 **PROGRAM.**

16 (a) ESTABLISHMENT.—The Secretary of Energy  
17 shall establish a program to provide technical assistance  
18 to the various oil and gas producing states to facilitate  
19 state efforts over a ten-year period to ensure a practical  
20 and economical remedy for environmental problems caused  
21 by orphaned and abandoned exploration or production well  
22 sites on state and private lands. The Secretary shall work  
23 with the states, through the Interstate Oil and Gas Com-  
24 pact Commission, to assist the states in quantifying and



1 mitigating environmental risks of onshore abandoned and  
2 orphaned wells on state and private lands.

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

5 (1) mechanisms to facilitate identification of re-  
6 sponsible parties wherever possible;

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

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

12 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
13 are authorized to be appropriated to the Secretary of En-  
14 ergy for the activities under this section \$5,000,000 for  
15 each of fiscal years 2003 through 2005 to carry out the  
16 provisions of this section.

17 **SEC. 606. OFFSHORE DEVELOPMENT.**

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

21 “(k) SUSPENSION OF OPERATIONS FOR SUBSALT  
22 EXPLORATION.—Notwithstanding any other provision of  
23 law or regulation, the Secretary may grant a request for  
24 a suspension of operations under any lease to allow the  
25 lessee to reprocess or reinterpret geologic or geophysical

1 data beneath allocthonous salt sheets, when in the Sec-  
2 retary's judgment such suspension is necessary to prevent  
3 waste caused by the drilling of unnecessary wells, and to  
4 maximize ultimate recovery of hydrocarbon resources  
5 under the lease. Such suspension shall be limited to the  
6 minimum period of time the Secretary determines is nec-  
7 essary to achieve the objectives of this subsection.”.

8 **SEC. 607. COALBED METHANE STUDY.**

9 (a) **STUDY.**—The National Academy of Sciences shall  
10 conduct a study on the effects of coalbed methane produc-  
11 tion on surface and water resources.

12 (b) **DATA ANALYSIS.**—The study shall analyze avail-  
13 able hydrogeologic and water quality data, along with  
14 other pertinent environmental or other information to  
15 determine—

16 (1) adverse effects associated with surface or  
17 subsurface disposal of waters produced during ex-  
18 traction of coalbed methane;

19 (2) depletion of groundwater aquifers or drink-  
20 ing water sources associated with production of coal-  
21 bed methane;

22 (3) any other significant adverse impacts to  
23 surface or water resources associated with produc-  
24 tion of coalbed methane; and

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

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

9           (d) COMPLETION OF STUDY.—The National Acad-  
10          emy of Sciences shall submit the study to the Secretary  
11          of the Interior within 18 months after the date of enact-  
12          ment of this Act, and shall make the study available to  
13          the public at the same time.

14          (e) REPORT TO CONGRESS.—The Secretary of the In-  
15          terior shall report to Congress within 6 months of her re-  
16          ceipt of the study on—

17                 (1) the findings and recommendations of the  
18                 study;

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

21                 (3) any recommended changes in funding to ad-  
22                 dress the effects of coalbed methane production on  
23                 surface and water resources.

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

3 (a) EVALUATION.—The Secretary of Energy, in co-  
4 ordination with the Secretaries of the Interior, Commerce,  
5 and Treasury, Indian tribes and the Interstate Oil and  
6 Gas Compact Commission, shall evaluate the impact of ex-  
7 isting Federal and State tax and royalty policies on the  
8 development of domestic oil and gas resources and on reve-  
9 nues to Federal, State, local and tribal governments.

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

12 (1) analyze the impact of fiscal policies on oil  
13 and natural gas exploration, development drilling,  
14 and production under different price scenarios, in-  
15 cluding the impact of the individual and corporate  
16 Alternative Minimum Tax, state and local produc-  
17 tion taxes and fixed royalty rates during low price  
18 periods;

19 (2) assess the effect of existing federal and  
20 state fiscal policies on investment under different ge-  
21 ological and developmental circumstances, including  
22 but not limited to deepwater environments, subsalt  
23 formations, deep and deviated wells, coalbed meth-  
24 ane and other unconventional oil and gas forma-  
25 tions;

1           (3) assess the extent to which federal and state  
2           fiscal policies negatively impact the ultimate recovery  
3           of resources from existing fields and smaller accu-  
4           mulations in offshore waters, especially in water  
5           depths less than 800 meters, of the Gulf of Mexico;

6           (4) compare existing federal and state policies  
7           with tax and royalty regimes in other countries with  
8           particular emphasis on similar geological, develop-  
9           mental and infrastructure conditions; and

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

15          (c) POLICY RECOMMENDATIONS.—Based upon the  
16          findings of the evaluation under subsection (a), a report  
17          describing the findings and recommendations for policy  
18          changes shall be provided to the President, the Congress,  
19          the Governors of the member states of the Interstate Oil  
20          and Gas Compact Commission, and Indian tribes having  
21          an oil and gas lease approved by the Secretary of the Inte-  
22          rior. The recommendations should ensure that the public  
23          interest in receiving the economic benefits of tax and roy-  
24          alty revenues is balanced with the broader national secu-  
25          rity and economic interests in maximizing recovery of do-

1 mestic resources. The report should include recommenda-  
2 tions regarding actions to—

3 (1) ensure stable development drilling during  
4 periods of low oil and/or natural gas prices to main-  
5 tain reserve replacement and deliverability;

6 (2) minimize the negative impact of a volatile  
7 investment climate on the oil and gas service indus-  
8 try and domestic oil and gas exploration and produc-  
9 tion;

10 (3) ensure a consistent level of domestic activity  
11 to encourage the education and retention of a tech-  
12 nical workforce; and

13 (4) maintain production capability during peri-  
14 ods of low oil and/or natural gas prices.

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

20 (e) REPORT.—The study under subsection (a) shall  
21 be completed not later than 18 months after the date of  
22 enactment of this section. The report and recommenda-  
23 tions required in (c) shall be transmitted to the President,  
24 the Congress, Indian tribes, and the Governors of the

1 member States of the Interstate Oil and Gas Compact  
2 Commission.

3 **SEC. 609. STRATEGIC PETROLEUM RESERVE.**

4 (a) FULL CAPACITY.—The President shall

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

9 (2) acquire petroleum for the Strategic Petro-  
10 leum Reserve by the most practicable and cost-effec-  
11 tive means, including the acquisition of crude oil the  
12 United States is entitled to receive in kind as royal-  
13 ties from production on Federal lands; and

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

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

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

21 (2) determine whether the capacity of the Stra-  
22 tegic Petroleum Reserve on the date of enactment of  
23 this section is adequate in light of the increasing  
24 consumption of petroleum and the reliance on im-  
25 ported petroleum.

1           **TITLE VII—NATURAL GAS**  
2                           **PIPELINES**  
3           **Subtitle A—Alaska Natural Gas**  
4                           **Pipeline**

5   **SEC. 701. SHORT TITLE.**

6           This subtitle may be cited as the “Alaska Natural  
7 Gas Pipeline Act of 2002”.

8   **SEC. 702. FINDINGS.**

9           The Congress finds that:

10                   (1) Construction of a natural gas pipeline sys-  
11 tem from the Alaskan North Slope to United States  
12 markets is in the national interest and will enhance  
13 national energy security by providing access to the  
14 significant gas reserves in Alaska needed to meet the  
15 anticipated demand for natural gas.

16                   (2) The Commission issued a certificate of pub-  
17 lic convenience and necessity for the Alaska Natural  
18 Gas Transportation System, which remains in effect.

19   **SEC. 703. PURPOSES.**

20           The purposes of this subtitle are—

21                   (1) to expedite the approval, construction, and  
22 initial operation of one or more transportation sys-  
23 tems for the delivery of Alaska natural gas to the  
24 contiguous United States;



1           (2) to ensure access to such transportation sys-  
2           tems on an equal and nondiscriminatory basis and  
3           to promote competition in the exploration, develop-  
4           ment and production of Alaska natural gas; and

5           (3) to provide federal financial assistance to  
6           any transportation system for the transport of Alas-  
7           ka natural gas to the contiguous United States, for  
8           which an application for a certificate of public con-  
9           venience and necessity is filed with the Commission  
10          not later than 6 months after the date of enactment  
11          of this subtitle.

12 **SEC. 704. ISSUANCE OF CERTIFICATE OF PUBLIC CONVEN-**  
13 **IENCE AND NECESSITY.**

14          (a) **AUTHORITY OF THE COMMISSION.**—Notwith-  
15          standing the provisions of the Alaska Natural Gas Trans-  
16          portation Act of 1976 (15 U.S.C. 719–719o), the Commis-  
17          sion may, pursuant to section 7(c) of the Natural Gas Act  
18          (15 U.S.C. 717f(c)), consider and act on an application  
19          for the issuance of a certificate of public convenience and  
20          necessity authorizing the construction and operation of an  
21          Alaska natural gas transportation project other than the  
22          Alaska Natural Gas Transportation System.

23          (b) **ISSUANCE OF CERTIFICATE.**—

24                 (1) The Commission shall issue a certificate of  
25          public convenience and necessity authorizing the

1 construction and operation of an Alaska natural gas  
2 transportation project under this section if the appli-  
3 cant has—

4 (A) entered into a contract to transport  
5 Alaska natural gas through the proposed Alas-  
6 ka natural gas transportation project for use in  
7 the contiguous United States; and

8 (B) satisfied the requirements of section  
9 7(e) of the Natural Gas Act (15 U.S.C.  
10 717f(e)).

11 (2) In considering an application under this  
12 section, the Commission shall presume that—

13 (A) a public need exists to construct and  
14 operate the proposed Alaska natural gas trans-  
15 portation project; and

16 (B) sufficient downstream capacity will  
17 exist to transport the Alaska natural gas mov-  
18 ing through such project to markets in the con-  
19 tiguous United States.

20 (c) EXPEDITED APPROVAL PROCESS.—The Commis-  
21 sion shall issue a final order granting or denying any ap-  
22 plication for a certificate of public and convenience and  
23 necessity under section 7(c) of the Natural Gas Act (15  
24 U.S.C. 717f(e)) and this section not more than 60 days

1 after the issuance of the final environmental impact state-  
2 ment for that project pursuant to section 705.

3 (d) **REVIEWS AND ACTIONS OF OTHER FEDERAL**  
4 **AGENCIES.**—All reviews conducted and actions taken by  
5 any federal officer or agency relating to an Alaska natural  
6 gas transportation project authorized under this section  
7 shall be expedited, in a manner consistent with completion  
8 of the necessary reviews and approvals by the deadlines  
9 set forth in this subtitle.

10 (e) **REGULATIONS.**—The Commission may issue reg-  
11 ulations to carry out the provisions of this section.

12 **SEC. 705. ENVIRONMENTAL REVIEWS.**

13 (a) **COMPLIANCE WITH NEPA.**—The issuance of a  
14 certificate of public convenience and necessity authorizing  
15 the construction and operation of any Alaska natural gas  
16 transportation project under section 704 shall be treated  
17 as a major federal action significantly affecting the quality  
18 of the human environment within the meaning of section  
19 102(2)(C) of the National Environmental Policy Act of  
20 1969 (42 U.S.C. 4332(2)(C)).

21 (b) **DESIGNATION OF LEAD AGENCY.**—The Commis-  
22 sion shall be the lead agency for purposes of complying  
23 with the National Environmental Policy Act of 1969, and  
24 shall be responsible for preparing the statement required  
25 by section 102(2)(c) of that Act (42 U.S.C. 4332(2)(c))

1 with respect to an Alaska natural gas transportation  
2 project under section 704. The Commission shall prepare  
3 a single environmental statement under this section, which  
4 shall consolidate the environmental reviews of all Federal  
5 agencies considering any aspect of the project.

6 (c) OTHER AGENCIES.—All Federal agencies consid-  
7 ering aspects of the construction and operation of an Alas-  
8 ka natural gas transportation project under section 704  
9 shall cooperate with the Commission, and shall comply  
10 with deadlines established by the Commission in the prep-  
11 aration of the statement under this section. The statement  
12 prepared under this section shall be used by all such agen-  
13 cies to satisfy their responsibilities under section  
14 102(2)(C) of the National Environmental Policy Act of  
15 1969 (42 U.S.C. 4332(2)(C)) with respect to such project.

16 (d) EXPEDITED PROCESS.—The Commission shall  
17 issue a draft statement under this section not later than  
18 12 months after the Commission determines the applica-  
19 tion to be complete and shall issue the final statement not  
20 later than 6 months after the Commission issues the draft  
21 statement, unless the Commission for good cause finds  
22 that additional time is needed.

23 (e) UPDATED ENVIRONMENTAL REVIEWS UNDER  
24 ANGTA.—The Secretary of Energy shall require the  
25 sponsor of the Alaska Natural Gas Transportation System

1 to submit such updated environmental data, reports, per-  
2 mits, and impact analyses as the Secretary determines are  
3 necessary to develop detailed terms, conditions, and com-  
4 pliance plans required by section 5 of the President's Deci-  
5 sion.

6 **SEC. 706. FEDERAL COORDINATOR.**

7 (a) ESTABLISHMENT.—There is established as an  
8 independent establishment in the executive branch, the Of-  
9 fice of the Federal Coordinator for Alaska Natural Gas  
10 Transportation Projects.

11 (b) THE FEDERAL COORDINATOR.—The Office shall  
12 be headed by a Federal Coordinator for Alaska Natural  
13 Gas Transportation Projects, who shall—

14 (1) be appointed by the President, by and with  
15 the advice of the Senate,

16 (2) hold office at the pleasure of the President,  
17 and

18 (3) be compensated at the rate prescribed for  
19 level III of the Executive Schedule (5 U.S.C. 5314).

20 (c) DUTIES.—The Federal Coordinator shall be re-  
21 sponsible for—

22 (1) coordinating the expeditious discharge of all  
23 activities by Federal agencies with respect to an  
24 Alaska natural gas transportation project; and

1           (2) ensuring the compliance of Federal agencies  
2           with the provisions of this subtitle.

3 **SEC. 707. JUDICIAL REVIEW.**

4           (a) **EXCLUSIVE JURISDICTION.**—The United States  
5 Court of Appeals for the District of Columbia Circuit shall  
6 have exclusive jurisdiction to determine—

7           (1) the validity of any final order or action (in-  
8           cluding a failure to act) of the Commission under  
9           this subtitle;

10           (2) the constitutionality of any provision of this  
11 subtitle, or any decision made or action taken there-  
12 under; or

13           (3) the adequacy of any environmental impact  
14 statement prepared under the National Environ-  
15 mental Policy Act of 1969 with respect to any action  
16 under this subtitle.

17           (b) **DEADLINE FOR FILING CLAIM.**—Claims arising  
18 under this subtitle may be brought not later than 60 days  
19 after the date of the decision or action giving rise to the  
20 claim.

21 **SEC. 708. LOAN GUARANTEE.**

22           (a) **AUTHORITY.**—The Secretary of Energy may  
23 guarantee not more than 80 percent of the principal of  
24 any loan made to the holder of a certificate of public con-  
25 venience and necessity issued under section 704(b) of this

1 Act or section 9 of the Alaska Natural Gas Transportation  
2 Act of 1976 (15 U.S.C. 719g) for the purpose of con-  
3 structing an Alaska natural gas transportation project.

4 (b) CONDITIONS—

5 (1) The Secretary of Energy may not guarantee  
6 a loan under this section unless the guarantee has  
7 filed an application for a certificate of public conven-  
8 ience and necessity under section 704(b) of this Act  
9 or for an amended certificate under section 9 of the  
10 Alaska Natural Gas Transportation Act of 1976 (15  
11 U.S.C. 719g) with the Commission not later than 6  
12 months after the date of enactment of this subtitle.

13 (2) A loan guaranteed under this section shall  
14 be made by a financial institution subject to the ex-  
15 amination of the Secretary.

16 (3) Loan requirements, including term, max-  
17 imum size, collateral requirements and other fea-  
18 tures shall be determined by the Secretary.

19 (c) LIMITATION ON AMOUNT.—Commitments to  
20 guarantee loans may be made by the Secretary of Energy  
21 only to the extent that the total loan principal, any part  
22 of which is guaranteed, will not exceed \$10,000,000,000.

23 (d) REGULATIONS.—The Secretary of Energy may  
24 issue regulations to carry out the provisions of this sec-  
25 tion.

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

6 **SEC. 709. STUDY OF ALTERNATIVE MEANS OF CONSTRUC-**  
7 **TION.**

8 (a) REQUIREMENT OF STUDY.—If no application for  
9 the issuance of a certificate of public convenience and ne-  
10 cessity authorizing the construction and operation of an  
11 Alaska natural gas transportation project has been filed  
12 with the Commission within 6 months after the date of  
13 enactment of this title, the Secretary of Energy shall con-  
14 duct a study of alternative approaches to the construction  
15 and operation of the project.

16 (b) SCOPE OF STUDY.—The study shall consider the  
17 feasibility of establishing a government corporation to con-  
18 struct an Alaska natural gas transportation project, and  
19 alternative means of providing federal financing and own-  
20 ership (including alternative combinations of government  
21 and private corporate ownership) of the project.

22 (c) CONSULTATION.—In conducting the study, the  
23 Secretary of Energy shall consult with the Secretary of  
24 the Treasury and the Secretary of the Army (acting



1 through the Commanding General of the Corps of Engi-  
2 neers).

3 (d) REPORT.—If the Secretary of Energy is required  
4 to conduct a study under subsection (a), he shall submit  
5 a report containing the results of the study, his rec-  
6 ommendations, and any proposals for legislation to imple-  
7 ment his recommendations to the Congress within 6  
8 months after the expiration of the Secretary of Energy’s  
9 authority to guarantee a loan under section 708.

10 **SEC. 710. SAVINGS CLAUSE.**

11 Nothing in this subtitle affects any decision, certifi-  
12 cate, permit, right-of-way, lease, or other authorization  
13 issued under section 9 of the Alaska Natural Gas Trans-  
14 portation Act of 1976 (15 U.S.C. 719g).

15 **SEC. 711. CLARIFICATION OF AUTHORITY TO AMEND**  
16 **TERMS AND CONDITIONS TO MEET CURRENT**  
17 **PROJECT REQUIREMENTS.**

18 Any Federal officer or agency responsible for grant-  
19 ing or issuing any certificate, permit, right-of-way, lease,  
20 or other authorization under section 9 of the Alaska Nat-  
21 ural Gas Transportation Act of 1976 (15 U.S.C. 719g)  
22 may add to, amend, or abrogate any term or condition  
23 included in such certificate, permit, right-of-way, lease, or  
24 other authorization to meet current project requirements  
25 (including the physical design, facilities, and tariff speci-

1 fications), so long as such action does not compel a change  
2 in the basic nature and general route of the Alaska Nat-  
3 ural Gas Transportation System as designated and de-  
4 scribed in section 2 of the President’s Decision, or would  
5 otherwise prevent or impair in any significant respect the  
6 expeditious construction and initial operation of such  
7 transportation system.

8 **SEC. 712. DEFINITIONS.**

9 For purposes of this subtitle:

10 (1) The term “Alaska natural gas” has the  
11 meaning given such term by section 4(1) of the  
12 Alaska Natural Gas Transportation Act of 1976 (15  
13 U.S.C. 719b(1)).

14 (2) The term “Alaska natural gas transpor-  
15 tation project” means any other natural gas pipeline  
16 system that carries Alaska natural gas from the  
17 North Slope of Alaska to the border between Alaska  
18 and Canada (including related facilities subject to  
19 the jurisdiction of the Commission) that is author-  
20 ized under either—

21 (A) the Alaska Natural Gas Transpor-  
22 tation Act of 1976 (15 U.S.C. 719–719o); or

23 (B) section 704 of this subtitle.

24 (3) The term “Alaska Natural Gas Transpor-  
25 tation System” means the Alaska natural gas trans-

1       portation project authorized under the Alaska Nat-  
2       ural Gas Transportation Act of 1976 and designated  
3       and described in section 2 of the President’s Deci-  
4       sion.

5               (4) The term “Commission” means the Federal  
6       Energy Regulatory Commission.

7               (5) The term “natural gas company” means a  
8       person engaged in the transportation of natural gas  
9       in interstate commerce or the sale in interstate com-  
10      merce of such gas for resale; and

11              (6) The term “President’s Decision” means the  
12      Decision and Report to Congress on the Alaska Nat-  
13      ural Gas Transportation system issued by the Presi-  
14      dent on September 22, 1977 pursuant to section 7  
15      of the Alaska Natural Gas Transportation Act of  
16      1976 (15 U.S.C. 719c) and approved by Public Law  
17      95–158.

18   **SEC. 713. SENSE OF THE SENATE.**

19       It is the sense of the Senate that an Alaska natural  
20      gas transportation project will provide significant eco-  
21      nomic benefits to the United States and Canada. In order  
22      to maximize those benefits, the Senate urges the sponsors  
23      of the pipeline project to make every effort to use steel  
24      that is manufactured or produced in North America and

1 to negotiate a project labor agreement to expedite con-  
2 struction of the pipeline.

### 3 **Subtitle B—Operating Pipelines**

#### 4 **SEC. 721. APPLICATION OF HISTORIC PRESERVATION ACT** 5 **TO OPERATING PIPELINES.**

6 Section 7 of the Natural Gas Act (15 U.S.C. 717(f))  
7 is amended by adding at the end the following:

8 “(i)(1) Notwithstanding the National Historic  
9 Preservation Act (16 U.S.C. 470 et seq.), a trans-  
10 portation facility shall not be eligible for inclusion on  
11 the National Register of Historic Places unless—

12 “(A) the Commission has permitted the  
13 abandonment of the transportation facility pur-  
14 suant to subsection (b), or

15 “(B) the owner of the facility has given  
16 written consent to such eligibility.

17 “(2) Any transportation facility considered eli-  
18 gible for inclusion on the National Register of His-  
19 toric Places prior to the date of enactment of this  
20 subsection shall no longer be eligible unless the  
21 owner of the facility gives written consent to such  
22 eligibility.”.

1 **SEC. 722. ENVIRONMENTAL REVIEW AND PERMITTING OF**  
2 **NATURAL GAS PIPELINE PROJECTS.**

3 (a) INTERAGENCY REVIEW.—The Chairman of the  
4 Council on Environmental Quality, in coordination with  
5 the Federal Energy Regulatory Commission, shall estab-  
6 lish an interagency task force to develop an interagency  
7 memorandum of understanding to expedite the environ-  
8 mental review and permitting of natural gas pipeline  
9 projects.

10 (b) MEMBERSHIP OF INTERAGENCY TASK FORCE.—  
11 The task force shall consist of—

12 (1) the Chairman of the Council on Environ-  
13 mental Quality, who shall serve as the Chairman of  
14 the interagency task force,

15 (2) the Chairman of the Federal Energy Regu-  
16 latory Commission,

17 (3) the Director of the Bureau of Land Man-  
18 agement,

19 (4) the Director of the U.S. Fish and Wildlife  
20 Service,

21 (5) the Commanding General, U.S. Army Corps  
22 of Engineers,

23 (6) the Chief of the Forest Service,

24 (7) the Administrator of the Environmental  
25 Protection Agency,

1 (8) the Chairman of the Advisory Council on  
2 Historic Preservation, and

3 (9) the heads of such other agencies as the  
4 Chairman of the Council on Environmental Quality  
5 and the Chairman of the Federal Energy Regulatory  
6 Commission deem appropriate.

7 (c) MEMORANDUM OF UNDERSTANDING.—The agen-  
8 cies represented by the members of the interagency task  
9 force shall enter into the memorandum of understanding  
10 not later than one year after the date of the enactment  
11 of this section.

12 **DIVISION C—DIVERSIFYING EN-**  
13 **ERGY DEMAND AND IMPROV-**  
14 **ING EFFICIENCY**

15 **TITLE VIII—FUELS AND**  
16 **VEHICLES**

17 **Subtitle A—CAFE Standards and**  
18 **Related Matters**

19 **SEC. 801. AVERAGE FUEL ECONOMY STANDARDS FOR PAS-**  
20 **SENGER AUTOMOBILES AND LIGHT TRUCKS.**

21 (a) INCREASED STANDARDS.—Section 32902 of title  
22 49, United States Code, is amended—

23 (1) by striking “NON-PASSENGER AUTO-  
24 MOBILES.—” in subsection (a) and inserting “PRE-  
25 SCRIPTION OF STANDARDS BY REGULATION.—”;

1           (2) by striking “(except passenger auto-  
2           mobiles)” in subsection (a) and inserting “(except  
3           passenger automobiles and light trucks)”; and

4           (3) by striking subsection (b) and inserting the  
5           following:

6           “(b) STANDARDS FOR PASSENGER AUTOMOBILES  
7           AND LIGHT TRUCKS.—

8           “(1) IN GENERAL.—The Secretary of Transpor-  
9           tation, after consultation with the Administrator of  
10          the Environmental Protection Agency, shall pre-  
11          scribe average fuel economy standards for passenger  
12          automobiles and light trucks manufactured by a  
13          manufacturer in each model year beginning with  
14          model year 2007 in order to achieve a combined av-  
15          erage fuel economy standard for passenger auto-  
16          mobiles and light trucks for model year 2015 of at  
17          least 35 miles per gallon.

18          “(2) ANNUAL PROGRESS TOWARD STANDARD  
19          REQUIRED.—In prescribing average fuel economy  
20          standards under paragraph (1), the Secretary shall  
21          prescribe appropriate annual fuel economy standard  
22          increases for passenger automobiles and light trucks  
23          that—

24                  “(A) increase the applicable average fuel  
25                  economy standard ratably over the 9 model-year

1 period beginning with model year 2007 and  
2 ending with model year 2015;

3 “(B) require that each manufacturer  
4 achieve—

5 “(i) a fuel economy standard for pas-  
6 senger automobiles manufactured by that  
7 manufacturer of at least 33.2 miles per  
8 gallon no later than model year 2012; and

9 “(ii) a fuel economy standard for light  
10 trucks manufactured by that manufacturer  
11 of at least 26.3 miles per gallon no later  
12 than model year 2012; and

13 “(C) for any model year within that 9  
14 model-year period does not result in an average  
15 fuel economy standard lower than—

16 “(i) 27.5 miles per gallon for pas-  
17 senger automobiles; or

18 “(ii) 20.7 miles per gallon for light  
19 duty trucks.

20 “(3) DEADLINE FOR REGULATIONS.—The Sec-  
21 retary shall promulgate the regulations required by  
22 paragraphs (1) and (2) in final form no later than  
23 18 months after the date of enactment of the En-  
24 ergy Policy Act of 2002.



1           “(4) DEFAULT STANDARDS.—If the Secretary  
 2 fails to meet the requirement of paragraph (3), the  
 3 average fuel economy standard for passenger auto-  
 4 mobiles and light trucks manufactured by a manu-  
 5 facturer in each model year beginning with model  
 6 year 2005 is the average fuel economy standard set  
 7 forth in the following tables:

<b>“For model year</b>	<b>The average fuel economy standard for passenger automobiles is:</b>
“2007 .....	28 miles per gallon
“2008 .....	28.5 miles per gallon
“2009 .....	30 miles per gallon
“2010 .....	31 miles per gallon
“2011 .....	32.5 miles per gallon
“2012 .....	34 miles per gallon
“2013 .....	35 miles per gallon
“2014 .....	36.5 miles per gallon
“2015 and thereafter .....	38.3 miles per gallon

  

<b>“For model year</b>	<b>The average fuel economy standard for light trucks is:</b>
“2007 .....	21.5 miles per gallon
“2008 .....	22.5 miles per gallon
“2009 .....	23.5 miles per gallon
“2010 .....	24.5 miles per gallon
“2011 .....	26 miles per gallon
“2012 .....	27.5 miles per gallon
“2013 .....	29.5 miles per gallon
“2014 .....	31 miles per gallon
“2015 and thereafter .....	32 miles per gallon

8           “(5) COMBINED STANDARD FOR MODEL YEARS  
 9 AFTER MODEL YEAR 2012.—Unless the default  
 10 standards under paragraph (4) are in effect, for  
 11 model years after model year 2012, the Secretary  
 12 may by rulemaking establish—

1           “(A) separate average fuel economy stand-  
2           ards for passenger automobiles and light trucks  
3           manufactured by a manufacturer; or

4           “(B) a combined average fuel economy  
5           standard for passenger automobiles and light  
6           trucks manufactured by a manufacturer.”;

7           (4) by striking “the standard” in subsection  
8           (c)(1) and inserting “a standard”;

9           (5) by striking the first and last sentences of  
10          subsection (c)(2); and

11          (6) by striking “(and submit the amendment to  
12          Congress when required under subsection (c)(2) of  
13          this section)” in subsection (g).

14          (b) DEFINITION OF LIGHT TRUCKS.—

15           (1) IN GENERAL.—Section 32901(a) of title 49,  
16          United States Code, is amended by adding at the  
17          end the following:

18           “(17) ‘light truck’ means an automobile that  
19          the Secretary decides by regulation—

20           “(A) is manufactured primarily for trans-  
21          porting not more than 10 individuals;

22           “(B) is rated at not more than 10,000  
23          pounds gross vehicle weight;

24           “(C) is not a passenger automobile; and

1           “(D) does not fall within the exceptions  
2           from the definition of ‘medium duty passenger  
3           vehicle’ under section 86.1803–01 of title 40,  
4           Code of Federal Regulations.”.

5           (2) DEADLINE FOR REGULATIONS.—The Sec-  
6           retary of Transportation—

7                   (A) shall issue proposed regulations imple-  
8                   menting the amendment made by paragraph (1)  
9                   not later than 1 year after the date of the en-  
10                  actment of this Act; and

11                   (B) shall issue final regulations imple-  
12                   menting the amendment not later than 18  
13                   months after the date of the enactment of this  
14                  Act.

15           (3) EFFECTIVE DATE.—Regulations prescribed  
16           under paragraph (1) shall apply beginning with  
17           model year 2007.

18           (c) APPLICABILITY OF EXISTING STANDARDS.—This  
19           section does not affect the application of section 32902  
20           of title 49, United States Code, to passenger automobiles  
21           or non-passenger automobiles manufactured before model  
22           year 2005.

23           (d) AUTHORIZATION OF APPROPRIATIONS.—There  
24           are authorized to be appropriated to the Secretary of  
25           Transportation to carry out the provisions of chapter 329

1 of title 49, United States Code, \$25,000,000 for each of  
2 fiscal years 2003 through 2015.

3 **SEC. 802. FUEL ECONOMY TRUTH IN TESTING.**

4 (a) IN GENERAL.—Section 32907 of title 49, United  
5 States Code, is amended by adding at the end the fol-  
6 lowing:

7 “(c) IMPROVED TESTING PROCEDURES.—

8 “(1) IN GENERAL.—The Administrator of the  
9 Environmental Protection Agency shall conduct—

10 “(A) an ongoing examination of the accu-  
11 racy of fuel economy testing of passenger auto-  
12 mobiles and light trucks by the Administrator  
13 performed in accordance with the procedures in  
14 effect as of the date of enactment of the Energy  
15 Policy Act of 2002 for the purpose of deter-  
16 mining whether, and to what extent, the fuel  
17 economy of passenger automobiles and light  
18 trucks as tested by the Administrator differs  
19 from the fuel economy reasonably to be ex-  
20 pected from those automobiles and trucks when  
21 driven by average drivers under average driving  
22 conditions; and

23 “(B) an assessment of the extent to which  
24 fuel economy changes during the life of pas-  
25 senger automobiles and light trucks.”.

1           “(2) REPORT.—The Administrator of the Envi-  
2           ronmental Protection Agency shall, within 12  
3           months after the date of enactment of the Energy  
4           Policy Act of 2002 and annually thereafter, submit  
5           to the Committee on Commerce, Science, and Trans-  
6           portation of the Senate and the Committee on Com-  
7           merce of the House of Representatives a report on  
8           the results of the study required by paragraph (1).  
9           The report shall include—

10                   “(A) a comparison between—

11                           “(i) fuel economy measured, for each  
12                           model in the applicable model year,  
13                           through testing procedures in effect as of  
14                           the date of enactment of the Energy Policy  
15                           Act of 2002; and

16                           “(ii) fuel economy of such passenger  
17                           automobiles and light trucks during actual  
18                           on-road performance, as determined under  
19                           that paragraph;

20                   “(B) a statement of the percentage dif-  
21                   ference, if any, between actual on-road fuel  
22                   economy and fuel economy measured by test  
23                   procedures of the Environmental Protection Ad-  
24                   ministration; and

1           “(C) a plan to reduce, by model year 2015,  
2           the percentage difference identified under sub-  
3           paragraph (B) by using uniform test methods  
4           that reflect actual on-the-road fuel economy  
5           consumers experience under normal driving con-  
6           ditions to no greater than 5 percent.”.

7   **SEC. 803. ENSURING SAFETY OF PASSENGER AUTOMOBILES**  
8                                   **AND LIGHT TRUCKS.**

9           (a) IN GENERAL.—The Secretary of Transportation  
10 shall exercise such authority under Federal law as the Sec-  
11 retary may have to ensure that—

12           (1) passenger automobiles and light trucks (as  
13           those terms are defined in section 32901 of title 49,  
14           United States Code) are safe;

15           (2) progress is made in improving the overall  
16           safety of passenger automobiles and light trucks;  
17           and

18           (3) progress is made in maximizing United  
19           States employment.

20           (b) IMPROVED CRASHWORTHINESS.—Subchapter II  
21 of chapter 301 of title 49, United States Code, is amended  
22 by adding at the end the following:

23   **“§ 30128. Improved crashworthiness**

24           “(a) ROLLOVERS.—Within 3 years after the date of  
25 enactment of the Energy Policy Act of 2002, the Secretary

1 of Transportation, through the National Highway Traffic  
2 Safety Administration, shall prescribe a motor vehicle  
3 safety standard under this chapter for rollover crash-  
4 worthiness standards that includes—

5 “(1) dynamic roof crush standards;

6 “(2) improved seat structure and safety belt de-  
7 sign;

8 “(3) side impact head protection airbags; and

9 “(4) roof injury protection measures.

10 “(b) HEAVY VEHICLE HARM REDUCTION COMPAT-  
11 IBILITY STANDARD.—

12 “(1) Within 3 years after the date of enactment  
13 of the Energy Policy Act of 2002, the Secretary,  
14 through the National Highway Traffic Safety Ad-  
15 ministration, shall prescribe a Federal motor vehicle  
16 safety standard under this chapter that will reduce  
17 the aggressivity of light trucks by 30 percent, using  
18 a baseline of model year 2002, and will improve ve-  
19 hicle compatibility in collisions between light trucks  
20 and cars, in order to protect against unnecessary  
21 death and injury.

22 “(2) The Secretary should review the effective-  
23 ness of this standard every five years following final  
24 issuance of the standard and shall issue, through the  
25 National Highway Traffic Safety Administration,

1 upgrades to the standard to reduce fatalities and in-  
2 juries related to vehicle compatibility and light truck  
3 aggressivity.”.

4 (c) CONFORMING AMENDMENT.—The chapter anal-  
5 ysis for chapter 301 of title 49, United States Code, is  
6 amended by inserting after the item relating to section  
7 30127 the following: “30128. Improved crashworthiness”.

8 **SEC. 804. HIGH OCCUPANCY VEHICLE EXCEPTION.**

9 (a) IN GENERAL.—Notwithstanding section  
10 102(a)(1) of title 23, United States Code, a State may,  
11 for the purpose of promoting energy conservation, permit  
12 a vehicle with fewer than 2 occupants to operate in high  
13 occupancy vehicle lanes if it is a hybrid vehicle or is cer-  
14 tified by the Secretary of Transportation, after consulta-  
15 tion with the Administrator of the Environmental Protec-  
16 tion Agency, to be a vehicle that runs only on an alter-  
17 native fuel.

18 (b) HYBRID VEHICLE DEFINED.—In this section, the  
19 term “hybrid vehicle” means a motor vehicle—

20 (1) which—

21 (A) draws propulsion energy from onboard  
22 sources of stored energy which are both—

23 (i) an internal combustion or heat en-  
24 gine using combustible fuel; and



1 (ii) a rechargeable energy storage sys-  
2 tem; or

3 (B) recovers kinetic energy through regen-  
4 erative braking and provides at least 13 percent  
5 maximum power from the electrical storage de-  
6 vice;

7 (2) which, in the case of a passenger automobile  
8 or light truck—

9 (A) for 2002 and later model vehicles, has  
10 received a certificate of conformity under sec-  
11 tion 206 of the Clean Air Act (42 U.S.C. 7525)  
12 and meets or exceeds the equivalent qualifying  
13 California low emission vehicle standard under  
14 section 243(e)(2) of the Clean Air Act (42  
15 U.S.C. 7583(e)(2)) for that make and model  
16 year; and

17 (B) for 2004 and later model vehicles, has  
18 received a certificate that such vehicle meets  
19 the Tier II emission level established in regula-  
20 tions prescribed by the Administrator of the  
21 Environmental Protection Agency under section  
22 202(i) of the Clean Air Act (42 U.S.C. 7521(i))  
23 for that make and model year vehicle; and

24 (3) which is made by a manufacturer.

1 (c) ALTERNATIVE FUEL DEFINED.—In this section,  
2 the term “alternative fuel” has the meaning such term has  
3 under section 301(2) of the Energy Policy Act of 1992  
4 (42 U.S.C. 13211(2)).

5 **SEC. 805. CREDIT TRADING PROGRAM.**

6 (a) IN GENERAL.—Section 32903 of title 49, United  
7 States Code, is amended by adding at the end the fol-  
8 lowing:

9 “(g) VEHICLE CREDIT TRADING SYSTEM.—

10 “(1) IN GENERAL.—The Secretary of Transpor-  
11 tation, with technical assistance from the Adminis-  
12 trator of the Environmental Protection Agency, may  
13 establish a system under which manufacturers with  
14 credits under this section may sell those credits to  
15 other manufacturers or transfer them among a man-  
16 ufacturer’s fleets.

17 “(2) PURPOSES.—The purposes of the system  
18 are:

19 “(A) Reducing the adverse effects of ineffi-  
20 cient consumption of fuel by passenger auto-  
21 mobiles and light trucks.

22 “(B) Accelerating introduction of advanced  
23 technology vehicles into use in the United  
24 States.

1           “(C) Encouraging manufacturers to exceed  
2           the average fuel economy standards established  
3           by section 32902.

4           “(D) Reducing emissions of carbon dioxide  
5           by passenger automobiles and light trucks.

6           “(E) Decreasing the United States’ con-  
7           sumption of oil as vehicular fuel.

8           “(F) Providing manufacturers flexibility in  
9           meeting the average fuel economy standards es-  
10          tablished by section 32902.

11          “(G) Increasing consumer choice.

12          “(3) PROGRAM REQUIREMENTS.—The system  
13          established under paragraph (1) shall—

14               “(A) make only credits accrued after the  
15               date of enactment of the Energy Policy Act of  
16               2002 eligible for transfer or sale;

17               “(B) use techniques and methods that  
18               minimize reporting costs for manufacturers;

19               “(C) provide for monitoring and  
20               verification of credit purchases;

21               “(D) require participating manufacturers  
22               to report monthly sales of vehicles to the Ad-  
23               ministrator of the Environmental Protection  
24               Agency; and

1           “(E) make manufacturer-specific credit,  
2 transfer, sale, and purchase information pub-  
3 licly available through annual reports and  
4 monthly posting of transactions on the Internet.

5           “(4) CREDITS MAY BE TRADED BETWEEN PAS-  
6 Senger automobiles and light trucks and be-  
7 tween domestic and import fleets.—The sys-  
8 tem shall provide that credits earned under this  
9 section—

10           “(A) with respect to passenger automobiles  
11 may be applied with respect to light trucks;

12           “(B) with respect to light trucks may be  
13 applied with respect to passenger automobiles;

14           “(C) with respect to passenger automobiles  
15 manufactured domestically may be applied with  
16 respect to passenger automobiles not manufac-  
17 tured domestically; and

18           “(D) with respect to passenger automobiles  
19 not manufactured domestically may be applied  
20 with respect to passenger automobiles manufac-  
21 tured domestically.

22           “(5) REPORT.—The Secretary and the Admin-  
23 istrator shall jointly submit an annual report to the  
24 Congress—

1           “(A) describing the effectiveness of the  
2           credits provided by this subsection achieving the  
3           purposes described in paragraph (2); and

4           “(B) setting forth a full accounting of all  
5           credits, transfers, sales, and purchases for the  
6           most recent model year for which data is avail-  
7           able.”.

8           (b) NO CARRYBACK OF CREDITS.—Section 32903(a)  
9           of title 49, United States Code, is amended—

10           (1) by striking “applied to—” and inserting  
11           “applied—”;

12           (2) by inserting “for model years before model  
13           year 2006, to” in paragraph (1) before “any”;

14           (3) by striking “and” after the semicolon in  
15           paragraph (1);

16           (4) by striking “earned.” in paragraph (2) and  
17           inserting “earned; and”;

18           (5) by adding at the end the following:

19           “(3) for model years after 2001, in accordance  
20           with the vehicle credit trading system established  
21           under subsection (g), to any of the 3 consecutive  
22           model years immediately after the model year for  
23           which the credit was earned.”.

1 (c) USE OF CREDIT VALUE TO CALCULATE CIVIL  
2 PENALTY.—Section 32912(b) of title 49, United States  
3 Code, is amended—

4 (1) by inserting “and is unable to purchase suf-  
5 ficient credits under section 32903(g) to comply with  
6 the standard” after “title” the first place it appears;  
7 and

8 (2) by striking all after “penalty” and inserting  
9 “of the greater of—

10 “(1) an amount determined by multiplying—

11 “(A) the number of credits necessary to  
12 enable the manufacturer to meet that standard;  
13 by

14 “(B) 1.5 times the previous year’s weight-  
15 ed average open market price of a credit under  
16 section 32903(g); or

17 “(2) \$5 multiplied by each 0.1 of a mile a gal-  
18 lon by which the applicable average fuel economy  
19 standard under section 32902 exceeds the average  
20 fuel economy—

21 “(A) calculated under section  
22 32904(a)(1)(A) or (B) for automobiles to which  
23 the standard applied manufactured by the man-  
24 ufacturer during the model year;

1           “(B) multiplied by the number of those  
2           automobiles; and

3           “(C) reduced by the credits available to the  
4           manufacturer under section 32903 for the  
5           model year.”.

6           (d) CONFORMING AMENDMENTS.—Section 32903 of  
7           title 49, United States Code, is amended—

8           (1) by inserting “or light trucks” after “pas-  
9           senger automobiles” each place it appears in sub-  
10          section (c);

11          (2) by inserting after “manufacturer.” in sub-  
12          section (d) “Credits earned with respect to pas-  
13          senger automobiles may be used with respect to non-  
14          passenger automobiles and light duty trucks.”; and

15          (3) by inserting after “manufacturer.” in sub-  
16          section (e) “Credits earned with respect to non-pas-  
17          senger automobiles or light trucks may be used with  
18          respect to passenger automobiles.”.

19           **SEC. 806. GREEN LABELS FOR FUEL ECONOMY.**

20          Section 32908 of title 49, United States Code, is  
21          amended—

22          (1) by striking “title.” in subsection (a)(1) and  
23          inserting “title, and a light truck (as defined in sec-  
24          tion 32901(17) after model year 2005; and”;

1           (2) by redesignating subparagraph (F) of sub-  
2           section (b)(1) as subparagraph (H), and inserting  
3           after subparagraph (E) the following:

4                   “(F) a label (or a logo imprinted on a label  
5                   required by this paragraph) that—

6                           “(i) reflects an automobile’s perform-  
7                           ance on the basis of criteria developed by  
8                           the Administrator to reflect the fuel econ-  
9                           omy and greenhouse gas and other emis-  
10                           sions consequences of operating the auto-  
11                           mobile over its likely useful life;

12                           “(ii) permits consumers to compare  
13                           performance results under clause (i)  
14                           among all passenger automobiles and light  
15                           duty trucks (as defined in section 32901)  
16                           and with vehicles in the vehicle class to  
17                           which it belongs; and

18                           “(iii) is designed to encourage the  
19                           manufacture and sale of passenger auto-  
20                           mobiles and light trucks that meet or ex-  
21                           ceed applicable fuel economy standards  
22                           under section 32902.

23                           “(G) a fuelstar under paragraph (5).”; and

24           (3) by adding at the end of subsection (b) the  
25           following:



1           “(4) GREEN LABEL PROGRAM.—

2                   “(A) MARKETING ANALYSIS.—Within 2  
3 years after the date of enactment of the Energy  
4 Policy Act of 2002, the Administrator shall  
5 complete a study of social marketing strategies  
6 with the goal of maximizing consumer under-  
7 standing of point-of-sale labels or logos de-  
8 scribed in paragraph (1)(F).

9                   “(B) CRITERIA.—In developing criteria for  
10 the label or logo, the Administrator shall also  
11 consider, among others as appropriate, the fol-  
12 lowing factors:

13                           “(i) The amount of greenhouse gases  
14 that will be emitted over the life-cycle of  
15 the automobile.

16                           “(ii) The fuel economy of the auto-  
17 mobile.

18                           “(iii) The recyclability of the auto-  
19 mobile.

20                           “(iv) Any other pollutants or harmful  
21 byproducts related to the automobile,  
22 which may include those generated during  
23 manufacture of the automobile, those  
24 issued during use of the automobile, or

1           those generated after the automobile  
2           ceases to be operated.

3           “(5) FUELSTAR PROGRAM.—The Secretary, in  
4           consultation with the Administrator, shall establish a  
5           program, to be known as the ‘fuelstar’ program,  
6           under which stars shall be imprinted on or attached  
7           to the label required by paragraph (1) that will, con-  
8           sistent with the findings of the marketing analysis  
9           required under subsection 4(A), provide consumer  
10          incentives to purchase vehicles that exceed the appli-  
11          cable fuel economy standard.

12 **SEC. 807. LIGHT TRUCK CHALLENGE.**

13          (a) IN GENERAL.—The Secretary of Transportation  
14          shall conduct an open competition for a project to dem-  
15          onstrate the feasibility of multiple fuel hybrid electric vehi-  
16          cle powertrains in sport utility vehicles and light trucks.  
17          The Secretary shall execute a contract with the entity de-  
18          termined by the Secretary to be the winner of the competi-  
19          tion under which the Secretary will provide \$10,000,000  
20          to that entity in each of fiscal years 2003 and 2004 to  
21          carry out the project.

22          (b) PROJECT REQUIREMENTS.—Under the contract,  
23          the Secretary shall require the entity to which the contract  
24          is awarded to—

1           (1) select a current model year production vehi-  
2           cle;

3           (2) modify that vehicle so that it—

4                 (A) meets all existing vehicle performance  
5                 characteristics of the sport utility vehicle or  
6                 light truck selected for the project;

7                 (B) improves the vehicle’s fuel economy  
8                 rating by 50 percent or more (as measured by  
9                 gasoline consumption); and

10           (3) meet the requirements of paragraph (2) in  
11           such a way that incorporation of the modification in  
12           the manufacturer’s production process would not in-  
13           crease the vehicle’s incremental production costs by  
14           more than 10 percent.

15           (c) ELIGIBLE ENTRANTS.—The competition con-  
16           ducted by the Secretary shall be open to any entity, or  
17           consortium of nongovernmental entities, educational insti-  
18           tutions, and not-for-profit organizations, that—

19                 (1) has the technical capability and resources  
20                 needed to complete the project successfully; and

21                 (2) has sufficient financial resources in addition  
22                 to the contract amount, if necessary, to complete the  
23                 contract successfully.

24           (d) AUTHORIZATION OF APPROPRIATIONS.—There  
25           are authorized to be appropriated to the Secretary of

1 Transportation \$10,000,000 for each of fiscal years 2003  
2 and 2004 to carry out this section.

3 **SEC. 808. SECRETARY OF TRANSPORTATION TO CERTIFY**  
4 **BENEFITS.**

5 Beginning with model year 2005, the Secretary of  
6 Transportation, in consultation with the Administrator of  
7 the Environmental Protection Agency, shall determine and  
8 certify annually to the Congress—

9 (1) the annual reduction in United States con-  
10 sumption of petroleum used for vehicle fuel, and

11 (2) the annual reduction in greenhouse gas  
12 emissions,

13 properly attributable to the implementation of the average  
14 fuel economy standards imposed under section 32902 of  
15 title 49, United States Code, as a result of the amend-  
16 ments made by this Act.

17 **SEC. 809. DEPARTMENT OF TRANSPORTATION ENGINEER-**  
18 **ING AWARD PROGRAM.**

19 (a) ENGINEERING TEAM AWARDS.—The Secretary of  
20 Transportation shall establish an engineering award pro-  
21 gram to recognize the engineering team of any manufac-  
22 turer of passenger automobiles or light trucks (as such  
23 terms are defined in section 32901 of title 49, United  
24 States Code) whose work directly results in production  
25 models of—

1           (1) the first large sport utility vehicle, van, or  
2 light truck to achieve a fuel economy rating of 30  
3 miles per gallon under section 32902 of such title;

4           (2) the first mid-sized sport utility vehicle, van,  
5 or light truck to achieve a fuel economy rating of 35  
6 miles per gallon under section 32902 of such title;  
7 and

8           (3) the first small sport utility vehicle, van, or  
9 light truck to achieve a fuel economy rating of 40  
10 miles per gallon under section 32902 of such title.

11       (b) MANUFACTURER'S AWARD.—The Secretary of  
12 Transportation shall establish an Oil Independence Award  
13 to recognize the first manufacturer of domestically-manu-  
14 factured (within the meaning of section 32903 of title 49,  
15 United States Code) passenger automobiles and light  
16 trucks to achieve a combined fuel economy rating of 37  
17 miles per gallon under section 32902 of such title.

18       (c) REQUIREMENTS FOR PARTICIPATION IN ENGI-  
19 NEERING TEAM AWARDS PROGRAM.—In establishing the  
20 engineering team awards program under subsection (a),  
21 the Secretary shall establish eligibility requirements that  
22 include—

23           (1) a requirement that the vehicle, van, or truck  
24 be domestically-manufactured or manufacturable (if

1 a prototype) within the meaning of section 32903 of  
2 title 49, United States Code;

3 (2) a requirement that the vehicle, van, or truck  
4 meet all applicable Federal standards for emissions  
5 and safety (except that crash testing shall not be re-  
6 quired for a prototype); and

7 (3) such additional requirements as the Sec-  
8 retary may require in order to carry out the pro-  
9 gram.

10 (d) AMOUNT OF PRIZE.—The Secretary shall award  
11 a prize of not less than \$10,000 to each engineering team  
12 determined by the Secretary to have successfully met the  
13 requirements of subsection (a)(1), (2), or (3). The Sec-  
14 retary shall provide for recognition of any manufacturer  
15 to have met the requirements of subsection (b) with appro-  
16 priate ceremonies and activities, and may provide a mone-  
17 tary award in an amount determined by the Secretary to  
18 be appropriate.

19 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to the Secretary of  
21 Transportation such sums as may be necessary to carry  
22 out this section.

23 **SEC. 810. COOPERATIVE TECHNOLOGY AGREEMENTS.**

24 (a) IN GENERAL.—The Secretary of Transportation,  
25 in cooperation with the Administrator of the Environ-

1 mental Protection Agency, may execute a cooperative re-  
2 search and development agreement with any manufacturer  
3 of passenger automobiles or light trucks (as those terms  
4 are defined in section 32901 of title 49, United States  
5 Code) to implement, utilize, and incorporate in production  
6 government-developed or jointly-developed fuel economy  
7 technology that will result in improvements in the average  
8 fuel economy of any class of vehicles produced by that  
9 manufacturer of at least 55 percent greater than the aver-  
10 age fuel economy of that class of vehicles for model year  
11 2000.

12 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
13 are authorized to be appropriated to the Secretary of  
14 Transportation and the Administrator of the Environ-  
15 mental Protection Agency such sums as may be necessary  
16 to carry out this section.

## 17 **Subtitle B—Alternative and** 18 **Renewable Fuels**

### 19 **SEC. 811. INCREASED USE OF ALTERNATIVE FUELS BY FED-** 20 **ERAL FLEETS.**

21 (a) REQUIREMENT TO USE ALTERNATIVE FUELS.—  
22 Section 400AA(a)(3)(E) of the Energy Policy and Con-  
23 servation Act (42 U.S.C. 6374(a)(3)(E)) is amended to  
24 read as follows:

1           “(E) Dual fueled vehicles acquired pursu-  
2           ant to this section shall be operated on alter-  
3           native fuels. If the Secretary determines that all  
4           dual fueled vehicles acquired pursuant to this  
5           section cannot operate on alternative fuels at all  
6           times, he may waive the requirement in part,  
7           but only to the extent that:

8                   “(i) Not later than September 30,  
9                   2003, not less than 50 percent of the total  
10                  annual volume of fuel used in such dual  
11                  fueled vehicles shall be from alternative  
12                  fuels.

13                  “(ii) Not later than September 30,  
14                  2005, not less than 75 percent of the total  
15                  annual volume of fuel used in such dual  
16                  fueled vehicles shall be from alternative  
17                  fuels.”.

18           (b) DEFINITION OF “DEDICATED VEHICLE”.—Sec-  
19           tion 400AA(g)(4)(B) of the Energy Policy and Conserva-  
20           tion Act (42 U.S.C. 6374(g)(4)(B)) is amended by insert-  
21           ing after “solely on alternative fuel” the following: “, in-  
22           cluding a three-wheeled enclosed electric vehicle having a  
23           vehicle identification number”.



1 **SEC. 812. EXCEPTION TO HOV PASSENGER REQUIREMENTS**  
2 **FOR ALTERNATIVE FUEL VEHICLES.**

3 Section 102(a)(1) of title 23, United States Code, is  
4 amended by inserting after “required” the following: “(un-  
5 less, in the discretion of the State transportation depart-  
6 ment, the vehicle is being operated on, or is being fueled  
7 by, an alternative fuel (as defined in section 301(2) of the  
8 Energy Policy Act of 1992 (42 U.S.C. 13211(2)))”.

9 **SEC. 813. DATA COLLECTION.**

10 Section 205 of the Department of Energy Organiza-  
11 tion Act (42 U.S.C. 7135) is amended by adding at the  
12 end the following:

13 “(m) In order to improve the ability to evaluate the  
14 effectiveness of the Nation’s renewable fuels mandate, the  
15 Administrator shall conduct and publish the results of a  
16 survey of renewable fuels consumption in the motor vehicle  
17 fuels market in the United States monthly, and in a man-  
18 ner designed to protect the confidentiality of individual re-  
19 sponses. In conducting the survey, the Administrator shall  
20 collect information both on a national basis and a regional  
21 basis, including—

- 22 (1) the quantity of renewable fuels produced;  
23 (2) the cost of production;  
24 (3) the cost of blending and marketing;  
25 (4) the quantity of renewable fuels consumed;

- 1           (5) the quantity of renewable fuels imported;  
2           and  
3           (6) market price data.

4 **SEC. 814. GREEN SCHOOL BUS PILOT PROGRAM.**

5           (a) ESTABLISHMENT.—The Secretary of Energy and  
6 the Secretary of Transportation shall jointly establish a  
7 pilot program for awarding grants on a competitive basis  
8 to eligible entities for the demonstration and commercial  
9 application of alternative fuel school buses and ultra-low  
10 sulfur diesel school buses.

11          (b) REQUIREMENTS.—Not later than 3 months after  
12 the date of the enactment of this Act, the Secretary shall  
13 establish and publish in the Federal register grant require-  
14 ments on eligibility for assistance, and on implementation  
15 of the program established under subsection (a), including  
16 certification requirements to ensure compliance with this  
17 subtitle.

18          (c) SOLICITATION.—Not later than 6 months after  
19 the date of the enactment of this Act, the Secretary shall  
20 solicit proposals for grants under this section.

21          (d) ELIGIBLE RECIPIENTS.—A grant shall be award-  
22 ed under this section only—  
23           (1) to a local governmental entity responsible  
24           for providing school bus service for one or more pub-  
25           lic school systems; or

1           (2) jointly to an entity described in paragraph  
2           (1) and a contracting entity that provides school bus  
3           service to the public school system or systems.

4           (e) TYPES OF GRANTS.—

5           (1) IN GENERAL.—Grants under this section  
6           shall be for the demonstration and commercial appli-  
7           cation of technologies to facilitate the use of alter-  
8           native fuel school buses and ultra-low sulfur diesel  
9           school buses instead of buses manufactured before  
10          model year 1977 and diesel-powered buses manufac-  
11          tured before model year 1991.

12          (2) NO ECONOMIC BENEFIT.—Other than the  
13          receipt of the grant, a recipient of a grant under this  
14          section may not receive any economic benefit in con-  
15          nection with the receipt of the grant.

16          (3) PRIORITY OF GRANT APPLICATIONS.—The  
17          Secretary shall give priority to awarding grants to  
18          applicants who can demonstrate the use of alter-  
19          native fuel buses and ultra-low sulfur diesel school  
20          buses instead of buses manufactured before model  
21          year 1977.

22          (f) CONDITIONS OF GRANT.—A grant provided under  
23          this section shall include the following conditions:

24                 (1) All buses acquired with funds provided  
25                 under the grant shall be operated as part of the

1 school bus fleet for which the grant was made for a  
2 minimum of 5 years.

3 (2) Funds provided under the grant may only  
4 be used—

5 (A) to pay the cost, except as provided in  
6 paragraph (3), of new alternative fuel school  
7 buses or ultra-low sulfur diesel school buses, in-  
8 cluding State taxes and contract fees; and

9 (B) to provide—

10 (i) up to 10 percent of the price of the  
11 alternative fuel buses acquired, for nec-  
12 essary alternative fuel infrastructure if the  
13 infrastructure will only be available to the  
14 grant recipient; and

15 (ii) up to 15 percent of the price of  
16 the alternative fuel buses acquired, for nec-  
17 essary alternative fuel infrastructure if the  
18 infrastructure will be available to the grant  
19 recipient and to other bus fleets.

20 (3) The grant recipient shall be required to pro-  
21 vide at least the lesser of 15 percent of the total cost  
22 of each bus received or \$15,000 per bus.

23 (4) In the case of a grant recipient receiving a  
24 grant to demonstrate ultra-low sulfur diesel school  
25 buses, the grant recipient shall be required to pro-

1       vide documentation to the satisfaction of the Sec-  
2       retary that diesel fuel containing sulfur at not more  
3       than 15 parts per million is available for carrying  
4       out the purposes of the grant, and a commitment by  
5       the applicant to use such fuel in carrying out the  
6       purposes of the grant.

7       (g) BUSES.—Funding under a grant made under this  
8       section may only be used to demonstrate the use of new  
9       alternative fuel school buses or ultra-low sulfur diesel  
10      school buses that—

11           (1) have a gross vehicle weight greater than  
12      14,000 pounds;

13           (2) are powered by a heavy duty engine;

14           (3) in the case of alternative fuel school buses,  
15      emit not more than—

16           (A) for buses manufactured in model year  
17      2002, 2.5 grams per brake horsepower-hour of  
18      nonmethane hydrocarbons and oxides of nitro-  
19      gen and .01 grams per brake horsepower-hour  
20      of particulate matter; and

21           (B) for buses manufactured in model years  
22      2003 through 2006, 1.8 grams per brake horse-  
23      power-hour of nonmethane hydrocarbons and  
24      oxides of nitrogen and .01 grams per brake  
25      horsepower-hour of particulate matter; and

1           (4) in the case of ultra-low sulfur diesel school  
2 buses, emit not more than the lesser of—

3           (A) the emissions of nonmethane hydro-  
4 carbons, oxides of nitrogen, and particulate  
5 matter of the best performing technology of the  
6 same class of ultra-low sulfur diesel school  
7 buses commercially available at the time the  
8 grant is made; or

9           (B) the applicable following amounts—

10           (i) for buses manufactured in model  
11 year 2002 or 2003, 3.0 grams per brake  
12 horsepower-hour of oxides of nitrogen and  
13 .01 grams per brake horsepower-hour of  
14 particulate matter; and

15           (ii) for buses manufactured in model  
16 years 2004 through 2006, 2.5 grams per  
17 brake horsepower-hour of nonmethane hy-  
18 drocarbons and oxides of nitrogen and .01  
19 grams per brake horsepower-hour of par-  
20 ticulate matter.

21           (h) DEPLOYMENT AND DISTRIBUTION.—The Sec-  
22 retary shall seek to the maximum extent practicable to  
23 achieve nationwide deployment of alternative fuel school  
24 buses through the program under this section, and shall  
25 ensure a broad geographic distribution of grant awards,

1 with a goal of no State receiving more than 10 percent  
2 of the grant funding made available under this section for  
3 a fiscal year.

4 (i) LIMIT ON FUNDING.—The Secretary shall provide  
5 not less than 20 percent and not more than 25 percent  
6 of the grant funding made available under this section for  
7 any fiscal year for the acquisition of ultra-low sulfur diesel  
8 school buses.

9 (j) DEFINITIONS.—For purposes of this section—

10 (1) the term “alternative fuel school bus”  
11 means a bus powered substantially by electricity (in-  
12 cluding electricity supplied by a fuel cell), or by liq-  
13 uefied natural gas, compressed natural gas, liquefied  
14 petroleum gas, hydrogen, propane, or methanol or  
15 ethanol at no less than 85 percent by volume; and

16 (2) the term “ultra-low sulfur diesel school  
17 bus” means a school bus powered by diesel fuel  
18 which contains sulfur at not more than 15 parts per  
19 million.

20 **SEC. 815. FUEL CELL BUS DEVELOPMENT AND DEM-**  
21 **ONSTRATION PROGRAM.**

22 (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
23 shall establish a program for entering into cooperative  
24 agreements with private sector fuel cell bus developers for  
25 the development of fuel cell-powered school buses, and

1 subsequently with not less than 2 units of local govern-  
2 ment using natural gas-powered school buses and such  
3 private sector fuel cell bus developers to demonstrate the  
4 use of fuel cell-powered school buses.

5 (b) COST SHARING.—The non-Federal contribution  
6 for activities funded under this section shall be not less  
7 than—

8 (1) 20 percent for fuel infrastructure develop-  
9 ment activities; and

10 (2) 50 percent for demonstration activities and  
11 for development activities not described in paragraph  
12 (1).

13 (c) FUNDING.—No more than \$25,000,000 of the  
14 amounts authorized under section 815 may be used for  
15 carrying out this section for the period encompassing fis-  
16 cal years 2003 through 2006.

17 (d) REPORTS TO CONGRESS.—Not later than 3 years  
18 after the date of the enactment of this Act, and not later  
19 than October 1, 2006, the Secretary shall transmit to the  
20 appropriate congressional committees a report that—

21 (1) evaluates the process of converting natural  
22 gas infrastructure to accommodate fuel cell-powered  
23 school buses; and

24 (2) assesses the results of the development and  
25 demonstration program under this section.



1 **SEC. 816. AUTHORIZATION OF APPROPRIATIONS.**

2 There are authorized to be appropriated to the Sec-  
3 retary of Energy for carrying out sections 814 and 815,  
4 to remain available until expended—

5 (1) \$50,000,000 for fiscal year 2003;

6 (2) \$60,000,000 for fiscal year 2004;

7 (3) \$70,000,000 for fiscal year 2005; and

8 (4) \$80,000,000 for fiscal year 2006.

9 **SEC. 817. BIODIESEL FUEL USE CREDIT.**

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

12 (1) by striking “NOT” in the subsection head-  
13 ing; and

14 (2) by striking “not”.

15 **SEC. 818. NEIGHBORHOOD ELECTRIC VEHICLES.**

16 Section 301 of the Energy Policy Act of 1992 (42  
17 U.S.C. 13211) is amended—

18 (1) by striking “or a dual fueled vehicle” and  
19 inserting “, a dual fueled vehicle, or a neighborhood  
20 electric vehicle”;

21 (2) by striking “and” at the end of paragraph  
22 (13);

23 (3) by striking the period at the end of sub-  
24 paragraph (14) and inserting “; and”; and

25 (4) by adding at the end the following:

1           “(15) the term ‘neighborhood electric vehicle’  
2 means a motor vehicle that qualifies as both—

3           “(A) a low-speed vehicle, as such term is  
4 defined in section 571.3(b) of title 49, Code of  
5 Federal Regulations; and

6           “(B) a zero-emission vehicle, as such term  
7 is defined in section 86.1703–99 of title 40,  
8 Code of Federal Regulations.”.

9 **SEC. 819. RENEWABLE CONTENT OF MOTOR VEHICLE FUEL.**

10       (a) IN GENERAL.—Section 211 of the Clean Air Act  
11 (42 U.S.C. 7545) is amended—

12           (1) by redesignating subsection (o) as sub-  
13 section (q); and

14           (2) by inserting after subsection (n) the fol-  
15 lowing:

16       “(o) RENEWABLE FUEL PROGRAM.—

17           “(1) DEFINITIONS.—In this section:

18           “(A) CELLULOSIC BIOMASS ETHANOL.—

19           The term ‘cellulosic biomass ethanol’ means  
20 ethanol derived from any lignocellulosic or  
21 hemicellulosic matter that is available on a re-  
22 newable or recurring basis, including—

23                   “(i) dedicated energy crops and trees;

24                   “(ii) wood and wood residues;

25                   “(iii) plants;

1 “(iv) grasses;

2 “(v) agricultural commodities and res-  
3 idues;

4 “(vi) fibers;

5 “(vii) animal wastes and other waste  
6 materials; and

7 “(viii) municipal solid waste.

8 “(B) RENEWABLE FUEL.—

9 “(i) IN GENERAL.—The term ‘renew-  
10 able fuel’ means motor vehicle fuel that—

11 “(I)(aa) is produced from grain,  
12 starch, oilseeds, or other biomass; or

13 “(bb) is natural gas produced  
14 from a biogas source, including a  
15 landfill, sewage waste treatment plant,  
16 feedlot, or other place where decaying  
17 organic material is found; and

18 “(II) is used to replace or reduce  
19 the quantity of fossil fuel present in a  
20 fuel mixture used to operate a motor  
21 vehicle.

22 “(ii) INCLUSION.—The term ‘renew-  
23 able fuel’ includes cellulosic biomass eth-  
24 anol and biodiesel (as defined in section

1           312(f) of the Energy Policy Act of 1992  
2           (42 U.S.C. 13220(f)).

3           “(C) SMALL REFINERY.—The term ‘small  
4 refinery’ means a refinery for which average ag-  
5 gregate daily crude oil throughput for the cal-  
6 endar year (as determined by dividing the ag-  
7 gregate throughput for the calendar year by the  
8 number of days in the calendar year) does not  
9 exceed 75,000 barrels.

10          “(2) RENEWABLE FUEL PROGRAM.—

11           “(A) IN GENERAL.—Not later than one  
12 year from enactment of this provision, the Ad-  
13 ministrator shall promulgate regulations ensur-  
14 ing that gasoline sold or dispensed to con-  
15 sumers in the United States, on an annual av-  
16 erage basis, contains the applicable volume of  
17 renewable fuel as specified in subparagraph  
18 (B). Regardless of the date of promulgation,  
19 such regulations shall contain compliance provi-  
20 sions for refiners, blenders, distributors and im-  
21 porters, as appropriate, to ensure that the re-  
22 quirements of this section are met, but shall not  
23 restrict where renewables can be used, or im-  
24 pose any per-gallon obligation for the use of re-  
25 newables. If the Administrator does not promul-

1 gate such regulations, the applicable percent-  
2 age, on a volume percentage of gasoline basis,  
3 shall be 1.62 in 2004.

4 “(B) APPLICABLE VOLUME.—

5 (i) CALENDAR YEARS 2004 THROUGH  
6 2012.—For the purpose of subparagraph  
7 (A), the applicable volume for any of cal-  
8 endar years 2004 through 2012 shall be  
9 determined in accordance with the fol-  
10 lowing table:

**Applicable volume of renewable fuel**

<b>“Calendar year:</b>	<b>(In billions of gallons)</b>
2004 .....	2.3
2005 .....	2.6
2006 .....	2.9
2007 .....	3.2
2008 .....	3.5
2009 .....	3.9
2010 .....	4.3
2011 .....	4.7
2012 .....	5.0.

11 “(ii) CALENDAR YEAR 2013 AND  
12 THEREAFTER.—For the purpose of sub-  
13 paragraph (A), the applicable volume for  
14 calendar year 2013 and each calendar year  
15 thereafter shall be equal to the product ob-  
16 tained by multiplying—

1           “(I) the number of gallons of  
2           gasoline that the Administrator esti-  
3           mates will be sold or introduced into  
4           commerce in the calendar year; and

5           “(II) the ratio that—

6           “(aa) 5.0 billion gallons of  
7           renewable fuels; bears to

8           “(bb) the number of gallons  
9           of gasoline sold or introduced  
10          into commerce in calendar year  
11          2012.

12           “(3) APPLICABLE PERCENTAGES.—Not later  
13          than October 31 of each calendar year, through  
14          2011, the Administrator of the Energy Information  
15          Administration shall provide the Administrator an  
16          estimate of the volumes of gasoline sales in the  
17          United States for the coming calendar year. Based  
18          on such estimates, the Administrator shall by No-  
19          vember 30 of each calendar year, through 2011, de-  
20          termine and publish in the Federal Register, the re-  
21          newable fuel obligation, on a volume percentage of  
22          gasoline basis, applicable to refiners, blenders, dis-  
23          tributors and importers, as appropriate, for the com-  
24          ing calendar year, to ensure that the requirements  
25          of paragraph (2) are met. For each calendar year,

1 the Administrator shall establish a single applicable  
2 percentage that applies to all parties, and make pro-  
3 vision to avoid redundant obligations. In determining  
4 the applicable percentages, the Administrator shall  
5 make adjustments to account for the use of renew-  
6 able fuels by exempt small refiners during the pre-  
7 vious year.

8 “(4) CELLULOSIC BIOMASS ETHANOL.—For the  
9 purpose of paragraph (2), 1 gallon of cellulosic bio-  
10 mass ethanol shall be considered to be the equivalent  
11 of 1.5 gallon of renewable fuel.

12 “(5) CREDIT PROGRAM.—

13 “(A) IN GENERAL.—The regulations pro-  
14 mulgated to carry out this subsection shall pro-  
15 vide for the generation of an appropriate  
16 amount of credits by any person that refines,  
17 blends, distributes or imports gasoline that con-  
18 tains a quantity of renewable fuel that is great-  
19 er than the quantity required under paragraph  
20 (2). Such regulations shall provide for the gen-  
21 eration of an appropriate amount of credits for  
22 biodiesel fuel. If a small refinery notifies the  
23 Administrator that it waives the exemption pro-  
24 vided by this Act, the regulations shall provide  
25 for the generation of credits by the small refin-

1           ery beginning in the year following such notifi-  
2           cation.

3           “(B) USE OF CREDITS.—A person that  
4           generates credits under subparagraph (A) may  
5           use the credits, or transfer all or a portion of  
6           the credits to another person, for the purpose  
7           of complying with paragraph (2).

8           “(C) LIFE OF CREDITS.—A credit gen-  
9           erated under this paragraph shall be valid to  
10          show compliance:

11                   (i) in the calendar year in which the  
12                   credit was generated or the next calendar  
13                   year, or

14                   (ii) in the calendar year in which the  
15                   credit was generated or next two consecu-  
16                   tive calendar years if the Administrator  
17                   promulgates regulations under paragraph  
18                   (6).

19          “(D) INABILITY TO PURCHASE SUFFICIENT  
20          CREDITS.—The regulations promulgated to  
21          carry out this subsection shall include provi-  
22          sions allowing any person that is unable to gen-  
23          erate or purchase sufficient credits to meet the  
24          requirements under paragraph (2) to carry for-  
25          ward a renewables deficit provided that, in the



1 calendar year following the year in which the  
2 renewables deficit is created, such person shall  
3 achieve compliance with the renewables require-  
4 ment under paragraph (2), and shall generate  
5 or purchase additional renewables credits to off-  
6 set the renewables deficit of the previous year.

7 “(6) SEASONAL VARIATIONS IN RENEWABLE  
8 FUEL USE.—

9 “(A) STUDY.—For each of calendar years  
10 2004 through 2012, the Administrator of the  
11 Energy Information Administration, shall con-  
12 duct a study of renewable fuels blending to de-  
13 termine whether there are excessive seasonal  
14 variations in the use of renewable fuels.

15 “(B) REGULATION OF EXCESSIVE SEA-  
16 SONAL VARIATIONS.—If, for any calendar year,  
17 the Administrator of the Energy Information  
18 Administration, based on the study under sub-  
19 paragraph (A), makes the determinations speci-  
20 fied in subparagraph (C), the Administrator  
21 shall promulgate regulations to ensure that 35  
22 percent or more of the quantity of renewable  
23 fuels necessary to meet the requirement of  
24 paragraph (2) is used during each of the peri-

1           ods specified in subparagraph (D) of each sub-  
2           sequent calendar year.

3           “(C) DETERMINATIONS.—The determina-  
4           tions referred to in subparagraph (B) are  
5           that—

6                   “(i) less than 35 percent of the quan-  
7                   tity of renewable fuels necessary to meet  
8                   the requirement of paragraph (2) has been  
9                   used during 1 of the periods specified in  
10                  subparagraph (D) of the calendar year;  
11                  and

12                   “(ii) a pattern of excessive seasonal  
13                   variation described in clause (i) will con-  
14                   tinue in subsequent calendar years.

15           “(D) PERIODS.—The two periods referred  
16           to in this paragraph are—

17                   “(i) April through September; and

18                   “(ii) January through March and Oc-  
19                   tober through December.

20           “(E) EXCLUSIONS.—Renewable fuels  
21           blended or consumed in 2004 in a state which  
22           has received a waiver under section 209(b) shall  
23           not be included in the study in subparagraph  
24           (A).

25           “(7) WAIVERS.—

1           “(A) IN GENERAL.—The Administrator, in  
2           consultation with the Secretary of Agriculture  
3           and the Secretary of Energy, may waive the re-  
4           quirement of paragraph (2) in whole or in part  
5           on petition by 1 or more States by reducing the  
6           national quantity of renewable fuel required  
7           under this subsection—

8                   “(i) based on a determination by the  
9                   Administrator, after public notice and op-  
10                  portunity for comment, that implementa-  
11                  tion of the requirement would severely  
12                  harm the economy or environment of a  
13                  State, a region, or the United States; or

14                  “(ii) based on a determination by the  
15                  Administrator, after public notice and op-  
16                  portunity for comment, that there is an in-  
17                  adequate domestic supply or distribution  
18                  capacity to meet the requirement.

19           “(B) PETITIONS FOR WAIVERS.—The Ad-  
20           ministrator, in consultation with the Secretary  
21           of Agriculture and the Secretary of Energy—

22                   “(i) shall approve or deny a State pe-  
23                   tition for a waiver of the requirement of  
24                   paragraph (2) within 180 days after the  
25                   date on which the petition is received; but

1                   “(ii) may extend that period for up to  
2                   60 additional days to provide for public no-  
3                   tice and opportunity for comment and for  
4                   consideration of the comments submitted.

5                   “(C) TERMINATION OF WAIVERS.—A waiv-  
6                   er granted under subparagraph (A) shall termi-  
7                   nate after 1 year, but may be renewed by the  
8                   Administrator after consultation with the Sec-  
9                   retary of Agriculture and the Secretary of En-  
10                  ergy.

11                  “(8) STUDY AND WAIVER FOR INITIAL YEAR OF  
12                  PROGRAM.—Not later than 180 days from enact-  
13                  ment, the Secretary of Energy shall complete for the  
14                  Administrator a study assessing whether the renew-  
15                  able fuels requirement under paragraph (2) will like-  
16                  ly result in significant adverse consumer impacts in  
17                  2004, on a national, regional or state basis. Such  
18                  study shall evaluate renewable fuel supplies and  
19                  prices, blendstock supplies, and supply and distribu-  
20                  tion system capabilities. Based on such study, the  
21                  Secretary shall make specific recommendations to  
22                  the Administrator regarding waiver of the require-  
23                  ments of paragraph (2), in whole or in part, to avoid  
24                  any such adverse impacts. Within 270 days from en-  
25                  actment, the Administrator shall, consistent with the

1 recommendations of the Secretary waive, in whole or  
2 in part, the renewable fuels requirement under para-  
3 graph (2) by reducing the national quantity of re-  
4 newable fuel required under this subsection in 2004.  
5 This provision shall not be interpreted as limiting  
6 the Administrator's authority to waive the require-  
7 ments of paragraph (2) in whole, or in part, under  
8 paragraph (7), pertaining to waivers.

9 “(9) SMALL REFINERIES.—

10 “(A) IN GENERAL.—The requirement of  
11 paragraph (2) shall not apply to small refineries  
12 until January 1, 2008. Not later than Decem-  
13 ber 31, 2006, the Secretary of Energy shall  
14 complete for the Administrator a study to de-  
15 termine whether the requirement of paragraph  
16 (2) would impose a disproportionate economic  
17 hardship on small refineries. For any small re-  
18 finery that the Secretary of Energy determines  
19 would experience a disproportionate economic  
20 hardship, the Administrator shall extend the  
21 small refinery exemption for such small refinery  
22 for no less than two additional years.

23 “(B) ECONOMIC HARDSHIP.—

24 “(i) A small refinery may at any time  
25 petition the Administrator for an extension

1 of the exemption from the requirement of  
2 paragraph (2) for the reason of dispropor-  
3 tionate economic hardship. In evaluating a  
4 hardship petition, the Administrator, in  
5 consultation with the Secretary of Energy,  
6 shall consider the findings of the study in  
7 addition to other economic factors.

8 “(ii) DEADLINE FOR ACTION ON PETI-  
9 TIONS.—The Administrator shall act on  
10 any petition submitted by a small refinery  
11 for a hardship exemption not later than 90  
12 days after the receipt of the petition.

13 “(C) CREDIT PROGRAM.—If a small refin-  
14 ery notifies the Administrator that it waives the  
15 exemption provided by this Act, the regulations  
16 shall provide for the generation of credits by  
17 the small refinery beginning in the year fol-  
18 lowing such notification.

19 “(D) OPT-IN FOR SMALL REFINERS.—A  
20 small refinery shall be subject to the require-  
21 ments of this section if it notifies the Adminis-  
22 trator that it waives the exemption under sub-  
23 paragraph (A).

24 “(10) STUDY.—Not later than 180 days after  
25 the date of enactment, the Secretary of Energy shall

1 complete for the Administrator a study assessing  
2 whether the renewable fuels requirement under para-  
3 graph (2) will likely result in significant adverse con-  
4 sumer impacts in 2004, on a national, regional or  
5 state basis. Such study shall evaluate renewable fuel  
6 supplies and prices, blendstock supplies, and supply  
7 and distribution system capabilities. Based on such  
8 study, the Secretary shall make specific rec-  
9 ommendations to the Administrator regarding waiv-  
10 er of the requirements of paragraph (2), in whole or  
11 in part, to avoid any such adverse impacts. Within  
12 270 days after the date of enactment, the Adminis-  
13 trator shall, consistent with the recommendations of  
14 the Secretary waive, in whole or in part, the renew-  
15 able fuels requirement under paragraph (2) by re-  
16 ducing the national quantity of renewable fuel re-  
17 quired under this subsection in 2004. This provision  
18 shall not be interpreted as limiting the Administra-  
19 tor's authority to waive the requirements of para-  
20 graph (2) in whole, or in part, under paragraph (7),  
21 pertaining to waivers.”.

22 (b) PENALTIES AND ENFORCEMENT.—Section  
23 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is  
24 amended—

25 (1) in paragraph (1)—

1 (A) in the first sentence, by striking “or  
2 (n)” each place it appears and inserting “(n) or  
3 (o)”;

4 (B) in the second sentence, by striking “or  
5 (m)” and inserting “(m), or (o)”;

6 (2) in the first sentence of paragraph (2), by  
7 striking “and (n)” each place it appears and insert-  
8 ing “(n), and (o)”.

9 (c) EXCLUSION FROM ETHANOL WAIVER.—Section  
10 211(h) of the Clean Air Act (42 U.S.C. 7545(h)) is  
11 amended—

12 (1) by redesignating paragraph (5) as para-  
13 graph (6); and

14 (2) by inserting after paragraph (4) the fol-  
15 lowing:

16 “(5) EXCLUSION FROM ETHANOL WAIVER.—

17 “(A) PROMULGATION OF REGULATIONS.—

18 Upon notification, accompanied by supporting  
19 documentation, from the Governor of a State  
20 that the Reid vapor pressure limitation estab-  
21 lished by paragraph (4) will increase emissions  
22 that contribute to air pollution in any area in  
23 the State, the Administrator shall, by regula-  
24 tion, apply, in lieu of the Reid vapor pressure  
25 limitation established by paragraph (4), the



1 Reid vapor pressure limitation established by  
2 paragraph (1) to all fuel blends containing gas-  
3 oline and 10 percent denatured anhydrous eth-  
4 anol that are sold, offered for sale, dispensed,  
5 supplied, offered for supply, transported or in-  
6 troduced into commerce in the area during the  
7 high ozone season.

8 “(B) DEADLINE FOR PROMULGATION.—

9 The Administrator shall promulgate regulations  
10 under subparagraph (A) not later than 90 days  
11 after the date of receipt of a notification from  
12 a Governor under that subparagraph.

13 “(C) EFFECTIVE DATE.—

14 “(i) IN GENERAL.—With respect to an  
15 area in a State for which the Governor  
16 submits a notification under subparagraph  
17 (A), the regulations under that subpara-  
18 graph shall take effect on the later of—

19 “(I) the first day of the first high  
20 ozone season for the area that begins  
21 after the date of receipt of the notifi-  
22 cation; or

23 “(II) 1 year after the date of re-  
24 ceipt of the notification.

1                   “(ii) EXTENSION OF EFFECTIVE DATE  
2                   BASED ON DETERMINATION OF INSUFFI-  
3                   CIENT SUPPLY.—

4                   “(I) IN GENERAL.—If, after re-  
5                   ceipt of a notification with respect to  
6                   an area from a Governor of a State  
7                   under subparagraph (A), the Adminis-  
8                   trator determines, on the Administra-  
9                   tor’s own motion or on petition of any  
10                  person and after consultation with the  
11                  Secretary of Energy, that the promul-  
12                  gation of regulations described in sub-  
13                  paragraph (A) would result in an in-  
14                  sufficient supply of gasoline in the  
15                  State, the Administrator, by  
16                  regulation—

17                  “(aa) shall extend the effec-  
18                  tive date of the regulations under  
19                  clause (i) with respect to the area  
20                  for not more than 1 year; and

21                  “(bb) may renew the exten-  
22                  sion under item (aa) for 2 addi-  
23                  tional periods, each of which  
24                  shall not exceed 1 year.

1                   “(II) DEADLINE FOR ACTION ON  
2                   PETITIONS.—The Administrator shall  
3                   act on any petition submitted under  
4                   subclause (I) not later than 180 days  
5                   after the date of receipt of the peti-  
6                   tion.”.

7           (d) SURVEY OF RENEWABLE FUEL MARKET.—

8                   (1) SURVEY AND REPORT.—Not later than De-  
9                   cember 1, 2005, and annually thereafter, the Admin-  
10                  istrator shall—

11                           (A) conduct, with respect to each conven-  
12                           tional gasoline use area and each reformulated  
13                           gasoline use area in each State, a survey to de-  
14                           termine the market shares of—

15                                   (i) conventional gasoline containing  
16                                   ethanol;

17                                   (ii) reformulated gasoline containing  
18                                   ethanol;

19                                   (iii) conventional gasoline containing re-  
20                                   newable fuel; and

21                                   (iv) reformulated gasoline containing  
22                                   renewable fuel; and

23                           (B) submit to Congress, and make publicly  
24                           available, a report on the results of the survey  
25                           under subparagraph (A).

1           (2) RECORDKEEPING AND REPORTING RE-  
2           QUIREMENTS.—The Administrator may require any  
3           refiner, blender, importer, or distributor to keep  
4           such records and make such reports as are necessary  
5           to ensure that the survey conducted under para-  
6           graph (1) is accurate. The Administrator shall rely,  
7           to the extent practicable, on existing reporting and  
8           recordkeeping requirements to avoid duplicative re-  
9           quirements.

10           (3) APPLICABLE LAW.—Activities carried out  
11           under this subsection shall be conducted in a man-  
12           ner designed to protect confidentiality of individual  
13           responses.

14           (e) RENEWABLE FUELS SAFE HARBOR.—

15           (1) IN GENERAL.—Notwithstanding any other  
16           provision of federal or state law, no renewable fuel,  
17           as defined by this Act, used or intended to be used  
18           as a motor vehicle fuel, nor any motor vehicle fuel  
19           containing such renewable fuel, shall be deemed de-  
20           fective in design or manufacture by virtue of the fact  
21           that it is, or contains, such a renewable fuel, if it  
22           does not violate a control or prohibition imposed by  
23           the Administrator under section 211 of the Clean  
24           Air Act, as amended by this Act, and the manufac-  
25           turer is in compliance with all requests for informa-

1       tion under section 211(b) of the Clean Air Act, as  
2       amended by this Act. In the event that the safe har-  
3       bor under this section does not apply, the existence  
4       of a design defect or manufacturing defect shall be  
5       determined under otherwise applicable law.

6               (2) EFFECTIVE DATE.—This section shall be ef-  
7       fective as of the date of enactment and shall apply  
8       with respect to all claims filed on or after that date.

9                   **Subtitle C—Additional Fuel**  
10                   **Efficiency Measures**

11       **SEC. 821. FUEL EFFICIENCY OF THE FEDERAL FLEET OF**  
12                   **AUTOMOBILES.**

13       Section 32917 of title 49, United States Code, is  
14       amended to read as follows:

15       **“§ 32917. Standards for executive agency automobiles**

16               “(a) BASELINE AVERAGE FUEL ECONOMY.—The  
17       head of each executive agency shall determine, for all auto-  
18       mobiles in the agency’s fleet of automobiles that were  
19       leased or bought as a new vehicle in fiscal year 1999, the  
20       average fuel economy for such automobiles. For the pur-  
21       poses of this section, the average fuel economy so deter-  
22       mined shall be the baseline average fuel economy for the  
23       agency’s fleet of automobiles.

1       “(b) INCREASE OF AVERAGE FUEL ECONOMY.—The  
2 head of an executive agency shall manage the procurement  
3 of automobiles for that agency in such a manner that—

4               “(1) not later than September 30, 2003, the av-  
5 erage fuel economy of the new automobiles in the  
6 agency’s fleet of automobiles is not less than 1 mile  
7 per gallon higher than the baseline average fuel  
8 economy determined under subsection (a) for that  
9 fleet; and

10              “(2) not later than September 30, 2005, the av-  
11 erage fuel economy of the new automobiles in the  
12 agency’s fleet of automobiles is not less than 3 miles  
13 per gallon higher than the baseline average fuel  
14 economy determined under subsection (a) for that  
15 fleet.

16       “(c) CALCULATION OF AVERAGE FUEL ECONOMY.—  
17 Average fuel economy shall be calculated for the purposes  
18 of this section in accordance with guidance which the Sec-  
19 retary of Transportation shall prescribe for the implemen-  
20 tation of this section.

21       “(d) DEFINITIONS.—In this section:

22              “(1) The term ‘automobile’ does not include  
23 any vehicle designed for combat-related missions,  
24 law enforcement work, or emergency rescue work.

1           “(2) The term ‘executive agency’ has the mean-  
2           ing given that term in section 105 of title 5.

3           “(3) The term ‘new automobile’, with respect to  
4           the fleet of automobiles of an executive agency,  
5           means an automobile that is leased for at least 60  
6           consecutive days or bought, by or for the agency,  
7           after September 30, 1999.”.

8   **SEC. 822. ASSISTANCE FOR STATE PROGRAMS TO RETIRE**  
9                           **FUEL-INEFFICIENT MOTOR VEHICLES.**

10          (a) ESTABLISHMENT.—The Secretary shall establish  
11          a program, to be known as the “National Motor Vehicle  
12          Efficiency Improvement Program.” Under this program,  
13          the Secretary shall provide grants to States to operate pro-  
14          grams to offer owners of passenger automobiles and light-  
15          duty trucks manufactured in model years more than 15  
16          years prior to the fiscal year in which appropriations are  
17          made under subsection (d) financial incentives to  
18          voluntarily—

19                 (1) scrap such automobiles and to replace them  
20                 with automobiles with higher fuel efficiency; or

21                 (2) repair such vehicles to improve their fuel  
22                 economy.

23          (b) STATE PLAN.—Not later than 180 days after the  
24          date of enactment of an appropriations act containing  
25          funds authorized under subsection (d), to be eligible to re-

1 ceive funds under the program, the Governor of a State  
2 shall submit to the Secretary a plan to carry out a pro-  
3 gram under this subtitle in that State.

4 (c) ELIGIBILITY CRITERIA.—The Secretary shall ap-  
5 prove a State plan and provide the funds under subsection  
6 (d), if the State plan—

7 (1) for voluntary vehicle scrappage programs—

8 (A) requires that all passenger automobiles  
9 and light-duty trucks turned in be scrapped;

10 (B) requires that prior to scrapping a vehi-  
11 cle, the state provide public notification of the  
12 intent to scrap and allow for the salvage of val-  
13 uable parts from the vehicle;

14 (C) requires that all passenger automobiles  
15 and light-duty trucks turned in be currently  
16 registered in the State in order to be eligible;

17 (D) requires that all passenger automobiles  
18 and light-duty trucks turned in be operational  
19 at the time that they are turned in;

20 (E) restricts automobile owners (except  
21 not-for-profit organizations) from turning in  
22 more than one passenger automobile and one  
23 light-duty truck in a 12-month period;

24 (F) provides an appropriate payment to  
25 the person recycling the scrapped passenger



1 automobile or light-duty truck for each turned-  
2 in passenger automobile or light-duty truck;

3 (G) provides a minimum payment to the  
4 automobile owner for each passenger auto-  
5 mobile and light-duty truck turned in;

6 (H) provides, in addition to the payment  
7 under subparagraph (G), an additional credit  
8 that may be redeemed by the owner of the  
9 turned-in passenger automobile or light-duty  
10 truck at the time of purchase of new fuel-effi-  
11 cient automobile; and

12 (I) estimates the fuel efficiency benefits of  
13 the program, and reports the estimated results  
14 to the Secretary annually; and

15 (2) for voluntary vehicle repair programs—

16 (A) requires the vehicle owner contribute  
17 at least 20 percent of the cost of the repairs;

18 (B) sets a ceiling beyond which the vehicle  
19 owner is responsible for the cost of repairs;

20 (C) allows the vehicle owner to opt out of  
21 the program if the cost of the repairs is consid-  
22 ered to be too great; and

23 (D) estimates the fuel economy benefits of  
24 the program and reports the estimated results  
25 to the Secretary annually.

1       (d) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are hereby authorized to be appropriated to the Secretary  
3 to carry out this section such sums as may be necessary,  
4 to remain available until expended.

5       (e) ALLOCATION FORMULA.—The amounts appro-  
6 priated pursuant to subsection (d) shall be allocated  
7 among the States on the basis of the population of the  
8 States as contained in the most recent reliable census data  
9 available from the Bureau of the Census, Department of  
10 Commerce, for all States at the time that the Secretary  
11 needs to compute shares under this subsection.

12       (f) DEFINITIONS.—In this section:

13           (1) AUTOMOBILE.—The term “automobile” has  
14 the meaning given such term in section 32901(3) of  
15 title 49, United States Code.

16           (2) FUEL-EFFICIENT AUTOMOBILE.—

17               (A) The term “fuel-efficient automobile”  
18 means a passenger automobile or a light-duty  
19 truck that has an average fuel economy greater  
20 than the average fuel economy standard pre-  
21 scribed pursuant to section 32902 of title 49,  
22 United States Code, or other law, applicable to  
23 such passenger automobile or light-duty truck.

1           (B) The term “average fuel economy” has  
2           the meaning given such term in section  
3           32901(5) of title 49, United States Code.

4           (C) The term “average fuel economy  
5           standard” has the meaning given such term in  
6           section 32901(6) of title 49, United States  
7           Code.

8           (D) The term “fuel economy” has the  
9           meaning given such term in section 32901(10)  
10          of title 49, United States Code.

11          (3) LIGHT-DUTY TRUCK.—The term “light-duty  
12          truck” means an automobile that is not a passenger  
13          automobile. Such term shall include a pickup truck,  
14          a van, or a four-wheel-drive general utility vehicle, as  
15          those terms are defined in section 600.002–85 of  
16          title 40, Code of Federal Regulations.

17          (4) PASSENGER AUTOMOBILE.—The term “pas-  
18          senger automobile” has the meaning given such term  
19          by section 32901(16) of title 49, United States  
20          Code.

21          (5) SECRETARY.—The term “Secretary” means  
22          the Secretary of Energy.

23          (6) STATE.—The term “State” means any of  
24          the several States and the District of Columbia.

1 **SEC. 823. IDLING REDUCTION SYSTEMS IN HEAVY DUTY VE-**  
2 **HICLES.**

3 Title III of the Energy Policy and Conservation Act  
4 (42 U.S.C. 6291 et seq.) is amended by adding at the end  
5 the following:

6 “PART K—REDUCING TRUCK IDLING

7 **“SEC. 400AAA. REDUCING TRUCK IDLING.**

8 “(a) STUDY.—Not later than 18 months after the  
9 date of enactment of this section, the Secretary shall, in  
10 consultation with the Secretary of Transportation, com-  
11 mence a study to analyze the potential fuel savings result-  
12 ing from long duration idling of main drive engines in  
13 heavy-duty vehicles.

14 “(b) REGULATIONS.—Upon completion of the study  
15 under subsection (a), the Secretary may issue regulations  
16 requiring the installation of idling reduction systems on  
17 all newly manufactured heavy duty vehicles.

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

19 “(1) The term ‘heavy-duty vehicle’ means a ve-  
20 hicle that has a gross vehicle weight rating greater  
21 than 8,500 pounds and is powered by a diesel en-  
22 gine.

23 “(2) The term ‘idling reduction system’ means  
24 a device or system of devices used to reduce long du-  
25 ration idling of a diesel engine in a vehicle.



1 (B) by inserting “and section 9010” before  
2 “if”; and

3 (2) by adding at the end the following:

4 “(12) REMEDIATION OF CONTAMINATION FROM  
5 ETHER FUEL ADDITIVES.—

6 “(A) IN GENERAL.—The Administrator  
7 and the States may use funds made available  
8 under section 9013(1) to carry out corrective  
9 actions with respect to a release of methyl ter-  
10 tiary butyl ether or other ether fuel additive  
11 that presents a threat to human health, welfare,  
12 or the environment.

13 “(B) APPLICABLE AUTHORITY.—Subpara-  
14 graph (A) shall be carried out—

15 “(i) in accordance with paragraph (2),  
16 except that a release with respect to which  
17 a corrective action is carried out under  
18 subparagraph (A) shall not be required to  
19 be from an underground storage tank; and

20 “(ii) in the case of a State, in accord-  
21 ance with a cooperative agreement entered  
22 into by the Administrator and the State  
23 under paragraph (7).”.

24 (b) RELEASE PREVENTION AND COMPLIANCE.—Sub-  
25 title I of the Solid Waste Disposal Act (42 U.S.C. 6991

1 et seq.) is amended by striking section 9010 and inserting  
2 the following:

3 **“SEC. 9010. RELEASE PREVENTION AND COMPLIANCE.**

4 “Funds made available under section 9013(2) from  
5 the Leaking Underground Storage Tank Trust Fund may  
6 be used for conducting inspections, or for issuing orders  
7 or bringing actions under this subtitle—

8 “(1) by a State (pursuant to section  
9 9003(h)(7)) acting under—

10 “(A) a program approved under section  
11 9004; or

12 “(B) State requirements regulating under-  
13 ground storage tanks that are similar or iden-  
14 tical to this subtitle, as determined by the Ad-  
15 ministrator; and

16 “(2) by the Administrator, acting under this  
17 subtitle or a State program approved under section  
18 9004.

19 **“SEC. 9011. BEDROCK BIOREMEDIATION.**

20 “The Administrator shall establish, at an institution  
21 of higher education (as defined in section 101 of the High-  
22 er Education Act of 1965 (20 U.S.C. 1001)) with estab-  
23 lished expertise in bioremediation of contaminated bedrock  
24 aquifers, a resource center—

1           “(1) to conduct research concerning bioremedi-  
2           ation of methyl tertiary butyl ether in contaminated  
3           underground aquifers, including contaminated bed-  
4           rock; and

5           “(2) to provide for States a technical assistance  
6           clearinghouse for information concerning innovative  
7           technologies for bioremediation described in para-  
8           graph (1).

9   **“SEC. 9012. SOIL REMEDIATION.**

10          “The Administrator may establish a program to con-  
11          duct research concerning remediation of methyl tertiary  
12          butyl ether contamination of soil, including granitic or vol-  
13          canic soil.

14   **“SEC. 9013. AUTHORIZATION OF APPROPRIATIONS.**

15          “In addition to amounts made available under section  
16          2007(f), there are authorized to be appropriated from the  
17          Leaking Underground Storage Tank Trust Fund, notwith-  
18          standing section 9508(c)(1) of the Internal Revenue Code  
19          of 1986—

20                 “(1) to carry out section 9003(h)(12),  
21                 \$200,000,000 for fiscal year 2003, to remain avail-  
22                 able until expended;

23                 “(2) to carry out section 9010—

24                         “(A) \$50,000,000 for fiscal year 2003; and



1           “(B) \$30,000,000 for each of fiscal years  
2           2004 through 2008;

3           “(3) to carry out section 9011—

4           “(A) \$500,000 for fiscal year 2003; and

5           “(B) \$300,000 for each of fiscal years  
6           2004 through 2008; and

7           “(4) to carry out section 9012—

8           “(A) \$100,000 for fiscal year 2003; and

9           “(B) \$50,000 for each of fiscal years 2004  
10          through 2008.

11          (c) TECHNICAL AMENDMENTS.—

12           (1) Section 1001 of the Solid Waste Disposal  
13          Act (42 U.S.C. prec. 6901) is amended by striking  
14          the item relating to section 9010 and inserting the  
15          following:

“Sec. 9010. Release prevention and compliance.

“Sec. 9011. Bedrock bioremediation.

“Sec. 9012. Soil remediation.

“Sec. 9013. Authorization of appropriations.”.

16           (2) Section 9001(3)(A) of the Solid Waste Dis-  
17          posal Act (42 U.S.C. 6991(3)(A)) is amended by  
18          striking “sustances” and inserting “substances”.

19           (3) Section 9003(f)(1) of the Solid Waste Dis-  
20          posal Act (42 U.S.C. 6991b(f)(1)) is amended by  
21          striking “subsection (c) and (d) of this section” and  
22          inserting “subsections (c) and (d)”.

1           (4) Section 9004(a) of the Solid Waste Disposal  
2 Act (42 U.S.C. 6991e(a)) is amended in the second  
3 sentence by striking “referred to” and all that fol-  
4 lows and inserting “referred to in subparagraph (A)  
5 or (B), or both, of section 9001(2).”.

6           (5) Section 9005 of the Solid Waste Disposal  
7 Act (42 U.S.C. 6991d) is amended—

8           (A) in subsection (a), by striking “study  
9 taking” and inserting “study, taking”;

10           (B) in subsection (b)(1), by striking  
11 “relevent” and inserting “relevant”; and

12           (C) in subsection (b)(4), by striking  
13 “Evironmental” and inserting “Environ-  
14 mental”.

15 **SEC. 833. AUTHORITY FOR WATER QUALITY PROTECTION**  
16 **FROM FUELS.**

17 (a) FINDINGS.—Congress finds that—

18           (1) since 1979, methyl tertiary butyl ether (re-  
19 ferred to in this section as “MTBE”) has been used  
20 nationwide at low levels in gasoline to replace lead  
21 as an octane booster or anti-knocking agent;

22           (2) Public Law 101–549 (commonly known as  
23 the “Clean Air Act Amendments of 1990”) (42  
24 U.S.C. 7401 et seq.) established a fuel oxygenate

1 standard under which reformulated gasoline must  
2 contain at least 2 percent oxygen by weight;

3 (3) at the time of the adoption of the fuel oxy-  
4 gen standard, Congress was aware that significant  
5 use of MTBE could result from the adoption of that  
6 standard, and that the use of MTBE would likely be  
7 important to the cost-effective implementation of  
8 that program;

9 (4) Congress is aware that gasoline and its  
10 component additives have leaked from storage tanks,  
11 with consequences for water quality;

12 (5) the fuel industry responded to the fuel oxy-  
13 genate standard established by Public Law 101-549  
14 by making substantial investments in—

15 (A) MTBE production capacity; and

16 (B) systems to deliver MTBE-containing  
17 gasoline to the marketplace;

18 (6) when leaked or spilled into the environment,  
19 MTBE may cause serious problems of drinking  
20 water quality;

21 (7) in recent years, MTBE has been detected in  
22 water sources throughout the United States;

23 (8) MTBE can be detected by smell and taste  
24 at low concentrations;

1           (9) while small quantities of MTBE can render  
2 water supplies unpalatable, the precise human health  
3 effects of MTBE consumption at low levels are yet  
4 unknown;

5           (10) in the report entitled “Achieving Clean Air  
6 and Clean Water: The Report of the Blue Ribbon  
7 Panel on Oxygenates in Gasoline” and dated Sep-  
8 tember 1999, Congress was urged—

9           (A) to eliminate the fuel oxygenate stand-  
10 ard;

11           (B) to greatly reduce use of MTBE; and

12           (C) to maintain the environmental per-  
13 formance of reformulated gasoline;

14           (11) Congress has—

15           (A) reconsidered the relative value of  
16 MTBE in gasoline; and

17           (B) decided to eliminate use of MTBE as  
18 a fuel additive;

19           (12) the timeline for elimination of use of  
20 MTBE as a fuel additive must be established in a  
21 manner that achieves an appropriate balance among  
22 the goals of—

23           (A) environmental protection;

24           (B) adequate energy supply; and

25           (C) reasonable fuel prices; and

1           (13) it is appropriate for Congress to provide  
2           some limited transition assistance—

3                   (A) to merchant producers of MTBE who  
4                   produced MTBE in response to a market cre-  
5                   ated by the oxygenate requirement contained in  
6                   the Clean Air Act; and

7                   (B) for the purpose of mitigating any fuel  
8                   supply problems that may result from elimi-  
9                   nation of a widely-used fuel additive.

10          (b) PURPOSES.—The purposes of this section are—

11                   (1) to eliminate use of MTBE as a fuel oxygen-  
12                   ate; and

13                   (2) to provide assistance to merchant producers  
14                   of MTBE in making the transition from producing  
15                   MTBE to producing other fuel additives.

16          (c) AUTHORITY FOR WATER QUALITY PROTECTION  
17 FROM FUELS.—Section 211(c) of the Clean Air Act (42  
18 U.S.C. 7545(c)) is amended—

19                   (1) in paragraph (1)(A)—

20                           (A) by inserting “fuel or fuel additive or”  
21                           after “Administrator any”; and

22                           (B) by striking “air pollution which” and  
23                           inserting “air pollution, or water pollution,  
24                           that”;

1           (2) in paragraph (4)(B), by inserting “or water  
2           quality protection,” after “emission control,”; and

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

4           “(5) PROHIBITION ON USE OF MTBE.—

5                 “(A) IN GENERAL.—Subject to subpara-  
6                 graph (E), not later than 4 years after the date  
7                 of enactment of this paragraph, the use of  
8                 methyl tertiary butyl ether in motor vehicle fuel  
9                 in any State other than a State described in  
10                subparagraph (C) is prohibited.

11               “(B) REGULATIONS.—The Administrator  
12               shall promulgate regulations to effect the prohi-  
13               bition in subparagraph (A).

14               “(C) STATES THAT AUTHORIZE USE.—A  
15               State described in this subparagraph is a State  
16               that submits to the Administrator a notice that  
17               the State authorizes use of methyl tertiary  
18               butyl ether in motor vehicle fuel sold or used in  
19               the State.

20               “(D) PUBLICATION OF NOTICE.—The Ad-  
21               ministrators shall publish in the Federal Reg-  
22               ister each notice submitted by a State under  
23               subparagraph (B).

24               “(E) TRACE QUANTITIES.—In carrying out  
25               subparagraph (A), the Administrator may allow

1 trace quantities of methyl tertiary butyl ether,  
2 not to exceed 0.5 percent by volume, to be  
3 present in motor vehicle fuel in cases that the  
4 Administrator determines to be appropriate.

5 “(6) MTBE MERCHANT PRODUCER CONVER-  
6 SION ASSISTANCE.—

7 “(A) IN GENERAL.—

8 “(i) GRANTS.—The Secretary of En-  
9 ergy, in consultation with the Adminis-  
10 trator, may make grants to merchant pro-  
11 ducers of methyl tertiary butyl ether in the  
12 United States to assist the producers in  
13 the conversion of eligible production facili-  
14 ties described in subparagraph (C) to the  
15 production of iso-octane and alkylates.

16 “(ii) DETERMINATION.—The Admin-  
17 istrator, in consultation with the Secretary  
18 of Energy, may determine that transition  
19 assistance for the production of iso-octane  
20 and alkylates is inconsistent with the pro-  
21 visions of subparagraph (B) and, on that  
22 basis, may deny applications for grants au-  
23 thorized by this provision.

24 “(B) The Secretary of Energy, in consulta-  
25 tion with the Administrator, may also further

1 make grants to merchant producers of MTBE  
2 in the United States to assist the producers in  
3 the conversion of eligible production facilities  
4 described in subparagraph (C) to the produc-  
5 tion of such other fuel additives that, consistent  
6 with 211(c)—

7 “(i) unless the Administrator deter-  
8 mines that such fuel additives may reason-  
9 ably be anticipated to endanger public  
10 health or the environment;

11 “(ii) have been registered and have  
12 been tested or are being tested in accord-  
13 ance with the requirements of this section;  
14 and

15 “(iii) will contribute to replacing gaso-  
16 line volumes lost as a result of paragraph  
17 (5).

18 “(C) ELIGIBLE PRODUCTION FACILI-  
19 TIES.—A production facility shall be eligible to  
20 receive a grant under this paragraph if the pro-  
21 duction facility—

22 “(i) is located in the United States;  
23 and



1           “(ii) produced methyl tertiary butyl  
2 ether for consumption in nonattainment  
3 areas during the period—

4                   “(I) beginning on the date of en-  
5 actment of this paragraph; and

6                   “(II) ending on the effective date  
7 of the prohibition on the use of methyl  
8 tertiary butyl ether under paragraph  
9 (5).

10           “(D) AUTHORIZATION OF APPROPRIA-  
11 TIONS.—There is authorized to be appropriated  
12 to carry out this paragraph \$250,000,000 for  
13 each of fiscal years 2003 through 2005.”.

14           (d) NO EFFECT ON LAW CONCERNING STATE AU-  
15 THORITY.—The amendments made by subsection (c) have  
16 no effect on the law in effect on the day before the date  
17 of enactment of this Act regarding the authority of States  
18 to limit the use of methyl tertiary butyl ether in motor  
19 vehicle fuel.

20 **SEC. 834. ELIMINATION OF OXYGEN CONTENT REQUIRE-**  
21 **MENT FOR REFORMULATED GASOLINE.**

22           (a) ELIMINATION.—

23                   (1) IN GENERAL.—Section 211(k) of the Clean  
24 Air Act (42 U.S.C. 7545(k)) is amended—

25                           (A) in paragraph (2)—

1 (i) in the second sentence of subpara-  
2 graph (A), by striking “(including the oxy-  
3 gen content requirement contained in sub-  
4 paragraph (B))”;

5 (ii) by striking subparagraph (B); and

6 (iii) by redesignating subparagraphs  
7 (C) and (D) as subparagraphs (B) and  
8 (C), respectively;

9 (B) in paragraph (3)(A), by striking clause  
10 (v);

11 (C) in paragraph (7)—

12 (i) in subparagraph (A)—

13 (I) by striking clause (i); and

14 (II) by redesignating clauses (ii)  
15 and (iii) as clauses (i) and (ii), respec-  
16 tively; and

17 (ii) in subparagraph (C)—

18 (I) by striking clause (ii); and

19 (II) by redesignating clause (iii)  
20 as clause (ii); and

21 (2) EFFECTIVE DATE.—The amendments made  
22 by paragraph (1) take effect 270 days after the date  
23 of enactment of this Act, except that such amend-  
24 ments shall take effect upon enactment in any State

1 that has received a waiver under section 209(b) of  
2 the Clean Air Act.

3 (b) MAINTENANCE OF TOXIC AIR POLLUTANT EMIS-  
4 SION REDUCTIONS.—Section 211(k)(1) of the Clean Air  
5 Act (42 U.S.C. 7545(k)(1)) is amended—

6 (1) by striking “Within 1 year after the enact-  
7 ment of the Clean Air Act Amendments of 1990,”  
8 and inserting the following:

9 “(A) IN GENERAL.—Not later than No-  
10 vember 15, 1991,”; and

11 (2) by adding at the end the following:

12 “(B) MAINTENANCE OF TOXIC AIR POL-  
13 LUTANT EMISSIONS REDUCTIONS FROM REFOR-  
14 MULATED GASOLINE.—

15 “(i) DEFINITIONS.—In this subpara-  
16 graph:

17 “(I) PADD.—The term ‘PADD’  
18 means a Petroleum Administration for  
19 Defense District.

20 “(ii) REGULATIONS REGARDING EMIS-  
21 SIONS OF TOXIC AIR POLLUTANTS.—Not  
22 later than 270 days after the date of en-  
23 actment of this subparagraph, the Admin-  
24 istrator shall establish, for each refinery or  
25 importer (other than a refinery or importer

1 in a State that has received a waiver under  
2 section 209(b) with regard to gasoline pro-  
3 duced for use in that state), standards for  
4 toxic air pollutants from use of the refor-  
5 mulated gasoline produced or distributed  
6 by the refinery or importer that maintain  
7 the reduction of the average annual aggre-  
8 gate emissions of toxic air pollutants for  
9 reformulated gasoline produced or distrib-  
10 uted by the refinery or importer during  
11 calendar years 1999 and 2000, determined  
12 on the basis of data collected by the Ad-  
13 ministrator with respect to the refinery or  
14 importer.

15 (iii) STANDARDS APPLICABLE TO SPE-  
16 CIFIC REFINERIES OR IMPORTERS.—

17 “(I) APPLICABILITY OF STAND-  
18 ARDS.—For any calendar year, the  
19 standards applicable to a refinery or  
20 importer under clause (ii) shall apply  
21 to the quantity of gasoline produced  
22 or distributed by the refinery or im-  
23 porter in the calendar year only to the  
24 extent that the quantity is less than  
25 or equal to the average annual quan-

1           tivity of reformulated gasoline produced  
2           or distributed by the refinery or im-  
3           porter during calendar years 1999  
4           and 2000.

5           “(II) APPLICABILITY OF OTHER  
6           STANDARDS.—For any calendar year,  
7           the quantity of gasoline produced or  
8           distributed by a refinery or importer  
9           that is in excess of the quantity sub-  
10          ject to subclause (I) shall be subject  
11          to standards for toxic air pollutants  
12          promulgated under subparagraph (A)  
13          and paragraph (3)(B).

14          “(iv) CREDIT PROGRAM.—The Admin-  
15          istrator shall provide for the granting and  
16          use of credits for emissions of toxic air pol-  
17          lutants in the same manner as provided in  
18          paragraph (7).

19          “(v) REGIONAL PROTECTION OF  
20          TOXICS REDUCTION BASELINES.—

21                 “(I) IN GENERAL.—Not later  
22                 than 60 days after the date of enact-  
23                 ment of this subparagraph, and not  
24                 later than April 1 of each calendar  
25                 year that begins after that date of en-

1 actment, the Administrator shall pub-  
2 lish in the Federal Register a report  
3 that specifies, with respect to the pre-  
4 vious calendar year—

5 “(aa) the quantity of reformu-  
6 lated gasoline produced that is  
7 in excess of the average annual  
8 quantity of reformulated gasoline  
9 produced in 1999 and 2000; and

10 “(bb) the reduction of the  
11 average annual aggregate emis-  
12 sions of toxic air pollutants in  
13 each PADD, based on retail sur-  
14 vey data or data from other ap-  
15 propriate sources.

16 “(II) EFFECT OF FAILURE TO  
17 MAINTAIN AGGREGATE TOXICS RE-  
18 Ductions.—If, in any calendar year,  
19 the reduction of the average annual  
20 aggregate emissions of toxic air pol-  
21 lutants in a PADD fails to meet or  
22 exceed the reduction of the average  
23 annual aggregate emissions of toxic  
24 air pollutants in the PADD in cal-  
25 endar years 1999 and 2000, the Ad-

1 administrator, not later than 90 days  
2 after the date of publication of the re-  
3 port for the calendar year under sub-  
4 clause (I), shall

5 “(aa) identify, to the max-  
6 imum extent practicable, the rea-  
7 sons for the failure, including the  
8 sources, volumes, and character-  
9 istics of reformulated gasoline  
10 that contributed to the failure;  
11 and

12 “(bb) promulgate revisions  
13 to the regulations promulgated  
14 under clause (ii), to take effect  
15 not earlier than 180 days but not  
16 later than 270 days after the  
17 date of promulgation, to provide  
18 that, notwithstanding clause  
19 (iii)(II), all reformulated gasoline  
20 produced or distributed at each  
21 refinery or importer shall meet  
22 the standards applicable under  
23 clause (iii) not later than April 1  
24 of the year following the report

1 in subclause (II) and for subse-  
2 quent years.

3 “(vi) REGULATIONS TO CONTROL  
4 HAZARDOUS AIR POLLUTANTS FROM  
5 MOTOR VEHICLES AND MOTOR VEHICLE  
6 FUELS.—Not later than July 1, 2004, the  
7 Administrator shall promulgate final regu-  
8 lations to control hazardous air pollutants  
9 from motor vehicles and motor vehicle  
10 fuels, as provided for in section 80.1045 of  
11 title 40, Code of Federal Regulations (as  
12 in effect on the date of enactment of this  
13 subparagraph).”.

14 (c) CONSOLIDATION IN REFORMULATED GASOLINE  
15 REGULATIONS.—Not later than 180 days after the date  
16 of enactment of this Act, the Administrator shall revise  
17 the reformulated gasoline regulations under subpart D of  
18 part 80 of title 40, Code of Federal Regulations, to con-  
19 solidate the regulations applicable to VOC-Control Re-  
20 gions 1 and 2 under section 80.41 of that title by elimi-  
21 nating the less stringent requirements applicable to gaso-  
22 line designated for VOC-Control Region 2 and instead ap-  
23 plying the more stringent requirements applicable to gaso-  
24 line designated for VOC-Control Region 1.



1 (d) SAVINGS CLAUSE.—Nothing in this section is in-  
2 tended to affect or prejudice any legal claims or actions  
3 with respect to regulations promulgated by the Adminis-  
4 trator prior to enactment of this Act regarding emissions  
5 of toxic air pollutants from motor vehicles.

6 (e) DETERMINATION REGARDING A STATE PETI-  
7 TION.—Section 211(k) of the Clean Air Act (42 U.S.C.  
8 7545(k)) is amended by inserting after paragraph (10) the  
9 following:

10 “(11) DETERMINATION REGARDING A STATE  
11 PETITION.—

12 “(A) IN GENERAL.—Notwithstanding any  
13 other provision of this section, not less than  
14 thirty days after enactment of this paragraph  
15 the Administrator must determine the adequacy  
16 of any petition received from a Governor of a  
17 State to exempt gasoline sold in that State  
18 from the requirements of (k)(2)(B).

19 “(B) If the determination in (A) is not  
20 made within thirty days of enactment of this  
21 paragraph, the petition shall be deemed ap-  
22 proved.”.

1 **SEC. 835. PUBLIC HEALTH AND ENVIRONMENTAL IMPACTS**  
2 **OF FUELS AND FUEL ADDITIVES.**

3 Section 211(b) of the Clean Air Act (42 U.S.C.  
4 7545(b)) is amended—

5 (1) in paragraph (2)—

6 (A) by striking “may also” and inserting  
7 “shall, on a regular basis,”; and

8 (B) by striking subparagraph (A) and inserting  
9 the following:

10 “(A) to conduct tests to determine poten-  
11 tial public health and environmental effects of  
12 the fuel or additive (including carcinogenic,  
13 teratogenic, or mutagenic effects); and”;

14 (2) by adding at the end the following:

15 “(4) STUDY ON CERTAIN FUEL ADDITIVES AND  
16 BLENDSTOCKS.—

17 “(A) IN GENERAL. Not later than 2 years  
18 after the date of enactment of this paragraph,  
19 the Administrator shall—

20 “(i) conduct a study on the effects on  
21 public health, air quality, and water re-  
22 sources of increased use of, and the feasi-  
23 bility of using as substitutes for methyl  
24 tertiary butyl ether in gasoline—

25 “(I) ethyl tertiary butyl ether;

26 “(II) tertiary amyl methyl ether;

1 “(III) di-isopropyl ether;  
2 “(IV) tertiary butyl alcohol;  
3 “(V) other ethers and heavy alco-  
4 hols, as determined by then Adminis-  
5 trator;

6 “(VI) ethanol;  
7 “(VII) iso-octane; and  
8 “(VIII) alkylates; and

9 “(ii) conduct a study on the effects on  
10 public health, air quality, and water re-  
11 sources of the adjustment for ethanol-  
12 blended reformulated gasoline to the VOC  
13 performance requirements otherwise appli-  
14 cable under sections 211(k)(1) and  
15 211(k)(3) of the Clean Air Act.

16 “(iii) submit to the Committee on  
17 Environment and Public Works of the  
18 Senate and the Committee on Energy  
19 and Commerce of the House of Rep-  
20 resentatives a report describing the  
21 results of these studies.

22 “(B) CONTRACTS FOR STUDY.—In car-  
23 rying out this paragraph, the Administrator  
24 may enter into 1 or more contracts with non-  
25 governmental entities including but not limited

1 to National Energy Laboratories and institu-  
2 tions of higher education (as defined in section  
3 101 of the Higher Education Act of 1965 (20  
4 U.S.C. 1001)).”.

5 **SEC. 836. ANALYSES OF MOTOR VEHICLE FUEL CHANGES.**

6 Section 211 of the Clean Air Act (42 U.S.C. 7545)  
7 (as amended by section 819(a)) is amended by inserting  
8 after subsection (o) the following:

9 “(p) ANALYSES OF MOTOR VEHICLE FUEL CHANGES  
10 AND EMISSIONS MODEL.—

11 “(1) ANTI-BACKSLIDING ANALYSIS.—

12 “(A) DRAFT ANALYSIS.—Not later than 4  
13 years after the date of enactment of this para-  
14 graph, the Administrator shall publish for pub-  
15 lic comment a draft analysis of the changes in  
16 emissions of air pollutants and air quality due  
17 to the use of motor vehicle fuel and fuel addi-  
18 tives resulting from implementation of the  
19 amendments made by the Federal Reformulated  
20 Fuels Act of 2002.

21 “(B) FINAL ANALYSIS.—After providing a  
22 reasonable opportunity for comment but not  
23 later than 5 years after the date of enactment  
24 of this paragraph, the Administrator shall pub-  
25 lish the analysis in final form.

1           “(2) EMISSIONS MODEL.—For the purposes of  
2 this subsection, as soon as the necessary data are  
3 available, the Administrator shall develop and final-  
4 ize an emissions model that reasonably reflects the  
5 effects of gasoline characteristics or components on  
6 emissions from vehicles in the motor vehicle fleet  
7 during calendar year 2005.”.

8 **SEC. 837. ADDITIONAL OPT-IN AREAS UNDER REFORMU-**  
9 **LATED GASOLINE PROGRAM.**

10           Section 211(k)(6) of the Clean Air Act (42 U.S.C.  
11 7545(k)(6)) is amended—

12           (1) by striking “(6) OPT-IN AREAS.—(A)  
13 Upon” and inserting the following:

14           “(6) OPT-IN AREAS.—

15           “(A) CLASSIFIED AREAS.—

16           “(i) IN GENERAL.—Upon”;

17           (2) in subparagraph (B), by striking “(B) If”  
18 and inserting the following:

19           “(ii) EFFECT OF INSUFFICIENT DO-  
20 MESTIC CAPACITY TO PRODUCE REFORMU-  
21 LATED GASOLINE.—If”;

22           (3) in subparagraph (A)(ii) (as redesignated by  
23 paragraph (2))—

24           (A) in the first sentence, by striking “sub-  
25 paragraph (A)” and inserting “clause (i)”; and

1 (B) in the second sentence, by striking  
2 “this paragraph” and inserting “this subpara-  
3 graph”; and

4 (4) by adding at the end the following:

5 “(B) OZONE TRANSPORT REGION.—

6 “(i) APPLICATION OF PROHIBITION.—

7 “(I) IN GENERAL.—In addition  
8 to the provisions of subparagraph (A),  
9 upon the application of the Governor  
10 of a State in the ozone transport re-  
11 gion established by section 184(a), the  
12 Administrator, not later than 180  
13 days after the date of receipt of the  
14 application, shall apply the prohibition  
15 specified in paragraph (5) to any area  
16 in the State (other than an area clas-  
17 sified as a marginal, moderate, seri-  
18 ous, or severe ozone nonattainment  
19 area under subpart 2 of part D of  
20 title I) unless the Administrator deter-  
21 mines under clause (iii) that there is  
22 insufficient capacity to supply refor-  
23 mulated gasoline.

24 “(II) PUBLICATION OF APPLICA-  
25 TION.—As soon as practicable after

1 the date of receipt of an application  
2 under subclause (I), the Adminis-  
3 trator shall publish the application in  
4 the Federal Register.

5 “(ii) PERIOD OF APPLICABILITY.—

6 Under clause (i), the prohibition specified  
7 in paragraph (5) shall apply in a State—

8 “(I) commencing as soon as prac-  
9 ticable but not later than 2 years  
10 after the date of approval by the Ad-  
11 ministrator of the application of the  
12 Governor of the State; and

13 “(II) ending not earlier than 4  
14 years after the commencement date  
15 determined under subclause (I).

16 “(iii) EXTENSION OF COMMENCEMENT  
17 DATE BASED ON INSUFFICIENT CAPAC-  
18 ITY.—

19 “(I) IN GENERAL.—If, after re-  
20 ceipt of an application from a Gov-  
21 ernor of a State under clause (i), the  
22 Administrator determines, on the Ad-  
23 ministrator’s own motion or on peti-  
24 tion of any person, after consultation  
25 with the Secretary of Energy, that

1 there is insufficient capacity to supply  
2 reformulated gasoline, the Adminis-  
3 trator, by regulation—

4 “(aa) shall extend the commence-  
5 ment date with respect to the  
6 State under clause (ii)(I) for not  
7 more than 1 year; and

8 “(bb) may renew the extension  
9 under item (aa) for 2 additional  
10 periods, each of which shall not  
11 exceed 1 year.

12 “(II) DEADLINE FOR ACTION ON  
13 PETITIONS.—The Administrator shall  
14 act on any petition submitted under  
15 subclause (I) not later than 180 days  
16 after the date of receipt of the peti-  
17 tion.”.

18 **SEC. 838. FEDERAL ENFORCEMENT OF STATE FUELS RE-**  
19 **QUIREMENTS.**

20 Section 211(c)(4)(C) of the Clean Air Act (42 U.S.C.  
21 7545(c)(4)(C)) is amended—

22 (1) by striking “(C) A State” and inserting the  
23 following:



1           “(C) AUTHORITY OF STATE TO CONTROL  
2 FUELS AND FUEL ADDITIVES FOR REASONS OF  
3 NECESSITY.—

4           “(i) IN GENERAL.—A State”; and  
5 (2) by adding at the end the following:

6           “(ii) ENFORCEMENT BY THE ADMIN-  
7 ISTRATOR.—In any case in which a State  
8 prescribes and enforces a control or prohi-  
9 bition under clause (i), the Administrator,  
10 at the request of the State, shall enforce  
11 the control or prohibition as if the control  
12 or prohibition had been adopted under the  
13 other provisions of this section.”.

14 **SEC. 839. FUEL SYSTEM REQUIREMENTS HARMONIZATION**  
15 **STUDY.**

16 (a) STUDY.—

17 (1) IN GENERAL.—The Administrator of the  
18 Environmental Protection Agency and the Secretary  
19 of Energy shall jointly conduct a study of Federal,  
20 State, and local requirements concerning motor vehi-  
21 cle fuels, including—

22 (A) requirements relating to reformulated  
23 gasoline, volatility (measured in Reid vapor  
24 pressure), oxygenated fuel, and diesel fuel; and

1 (B) other requirements that vary from  
2 State to State, region to region, or locality to  
3 locality.

4 (2) REQUIRED ELEMENTS.—The study shall  
5 assess—

6 (A) the effect of the variety of require-  
7 ments described in paragraph (1) on the supply,  
8 quality, and price of motor vehicle fuels avail-  
9 able to the consumer;

10 (B) the effect of the requirements de-  
11 scribed in paragraph (1) on achievement of—

12 (i) national, regional, and local air  
13 quality standards and goals; and

14 (ii) related environmental and public  
15 health protection standards and goals;

16 (C) the effect of Federal, State, and local  
17 motor vehicle fuel regulations, including mul-  
18 tiple motor vehicle fuel requirements, on—

19 (i) domestic refineries;

20 (ii) the fuel distribution system; and

21 (iii) industry investment in new capac-  
22 ity;

23 (D) the effect of the requirements de-  
24 scribed in paragraph (1) on emissions from ve-  
25 hicles, refineries, and fuel handling facilities;

1 (E) the feasibility of developing national or  
2 regional motor vehicle fuel slates for the 48  
3 contiguous States that, while protecting and im-  
4 proving air quality at the national, regional,  
5 and local levels, could—

6 (i) enhance flexibility in the fuel dis-  
7 tribution infrastructure and improve fuel  
8 fungibility;

9 (ii) reduce price volatility and costs to  
10 consumers and producers;

11 (iii) provide increased liquidity to the  
12 gasoline market; and

13 (iv) enhance fuel quality, consistency,  
14 and supply; and

15 (F) the feasibility of providing incentives,  
16 and the need for the development of national  
17 standards necessary, to promote cleaner burn-  
18 ing motor vehicle fuel.

19 (b) REPORT.—

20 (1) IN GENERAL.—Not later than June 1,  
21 2006, the Administrator of the Environmental Pro-  
22 tection Agency and the Secretary of Energy shall  
23 submit to Congress a report on the results of the  
24 study conducted under subsection (a).

25 (2) RECOMMENDATIONS.—

1 (A) IN GENERAL.—The report shall con-  
2 tain recommendations for legislative and admin-  
3 istrative actions that may be taken—

4 (i) to improve air quality;

5 (ii) to reduce costs to consumers and  
6 producers; and

7 (iii) to increase supply liquidity.

8 (B) REQUIRED CONSIDERATIONS.—The  
9 recommendations under subparagraph (A) shall  
10 take into account the need to provide advance  
11 notice of required modifications to refinery and  
12 fuel distribution systems in order to ensure an  
13 adequate supply of motor vehicle fuel in all  
14 States.

15 (3) CONSULTATION.—In developing the report,  
16 the Administrator of the Environmental Protection  
17 Agency and the Secretary of Energy shall consult  
18 with—

19 (A) the Governors of the States;

20 (B) automobile manufacturers;

21 (C) motor vehicle fuel producers and dis-  
22 tributors; and

23 (D) the public.

1 **TITLE IX—ENERGY EFFICIENCY**  
2 **AND ASSISTANCE TO LOW IN-**  
3 **COME CONSUMERS**

4 **Subtitle A—Low Income Assistance**  
5 **and State Energy Programs**

6 **SEC. 901. INCREASED FUNDING FOR LIHEAP, WEATHERIZA-**  
7 **TION ASSISTANCE, AND STATE ENERGY**  
8 **GRANTS.**

9 (a) LIHEAP.—(1) Section 2602(b) of the Low-In-  
10 come Home Energy Assistance Act of 1981 (42 U.S.C.  
11 8621(b)) is amended by striking the first sentence and in-  
12 serting the following: “There are authorized to be appro-  
13 priated to carry out the provisions of this title (other than  
14 section 2607A), \$3,400,000,000 for each of fiscal years  
15 2003 through 2005.”.

16 (2) Section 2602(e) of the Low-Income Home Energy  
17 Assistance Act of 1981 (42 U.S.C. 8621(e) is amended  
18 by striking “\$600,000,000” and inserting  
19 “\$1,000,000,000”.

20 (3) Section 2609A(a) of the Low-Income Energy As-  
21 sistance Act of 1981 (42 U.S.C. 8628a(a)) is amended by  
22 striking “not more than \$300,000” and inserting: “not  
23 more than \$750,000”.

24 (b) WEATHERIZATION ASSISTANCE.—Section 422 of  
25 the Energy Conservation and Production Act (42 U.S.C.

1 6872) is amended by striking “for fiscal years 1999  
2 through 2003 such sums as may be necessary.” and in-  
3 serting: “\$325,000,000 for fiscal year 2003,  
4 \$400,000,000 for fiscal year 2004, and \$500,000,000 for  
5 fiscal year 2005.”.

6 **SEC. 902. STATE ENERGY PROGRAMS.**

7 (a) STATE ENERGY CONSERVATION PLANS.—Section  
8 362 of the Energy Policy and Conservation Act (42 U.S.C.  
9 6322)) is amended by adding at the end the following:

10 “(g) The Secretary shall, at least once every three  
11 years, invite the Governor of each State to review and,  
12 if necessary, revise the energy conservation plan of the  
13 State submitted under subsection (b) or (e). Such reviews  
14 should consider the energy conservation plans of other  
15 States within the region, and identify opportunities and  
16 actions that may be carried out in pursuit of common en-  
17 ergy conservation goals.”.

18 (b) STATE ENERGY CONSERVATION GOALS.—Section  
19 364 of the Energy Policy and Conservation Act (42 U.S.C.  
20 6324) is amended to read as follows:

21 “SEC. 364. Each State energy conservation plan with  
22 respect to which assistance is made available under this  
23 part on or after the date of enactment of the Energy Pol-  
24 icy Act of 2002 shall contain a goal, consisting of an im-  
25 provement of 25 percent or more in the efficiency of use

1 of energy in the State concerned in calendar year 2010  
2 as compared to calendar year 1990, and may contain in-  
3 terim goals.”.

4 (c) STATE ENERGY CONSERVATION GRANTS.—Sec-  
5 tion 365(f) of the Energy Policy and Conservation Act (42  
6 U.S.C. 6325(f)) is amended by striking “for fiscal years  
7 1999 through 2003 such sums as may be necessary.” and  
8 inserting: “\$100,000,000 for each of fiscal years 2003 and  
9 2004; \$125,000,000 for fiscal year 2005; and such sums  
10 as may be necessary for each fiscal year thereafter.”.

11 **SEC. 903. ENERGY EFFICIENT SCHOOLS.**

12 (a) ESTABLISHMENT.—There is established in the  
13 Department of Energy the High Performance Schools  
14 Program (in this section referred to as the “Program”).

15 (b) GRANTS.—The Secretary of Energy may make  
16 grants to a State energy office—

17 (1) to assist school districts in the State to im-  
18 prove the energy efficiency of school buildings;

19 (2) to administer the Program; and

20 (3) to promote participation in the Program.

21 (c) GRANTS TO ASSIST SCHOOL DISTRICTS.—The  
22 Secretary shall condition grants under subsection (b)(1)  
23 on the State energy office using the grants to assist school  
24 districts that have demonstrated—

1           (1) a need for the grants to build additional  
2 school buildings to meet increasing elementary or  
3 secondary enrollments or to renovate existing school  
4 buildings; and

5           (2) a commitment to use the grant funds to de-  
6 velop high performance school buildings in accord-  
7 ance with a plan that the State energy office, in con-  
8 sultation with the State educational agency, has de-  
9 termined is feasible and appropriate to achieve the  
10 purposes for which the grant is made.

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

13           (1) evaluate compliance by school districts with  
14 requirements of this section;

15           (2) distribute information and materials to  
16 clearly define and promote the development of high  
17 performance school buildings for both new and exist-  
18 ing facilities;

19           (3) organize and conduct programs for school  
20 board members, school personnel, architects, engi-  
21 neers, and others to advance the concepts of high  
22 performance school buildings;

23           (4) obtain technical services and assistance in  
24 planning and designing high performance school  
25 buildings; or



1           (5) collect and monitor data and information  
2           pertaining to the high performance school building  
3           projects.

4           (e) GRANTS TO PROMOTE PARTICIPATION.—Grants  
5           under subsection (b)(3) shall be used for promotional and  
6           marketing activities, including facilitating private and  
7           public financing, promoting the use of energy savings per-  
8           formance contracts, working with school administrations,  
9           students, and communities, and coordinating public ben-  
10          efit programs.

11          (f) SUPPLEMENTING GRANT FUNDS.—The State en-  
12          ergy office shall encourage qualifying school districts to  
13          supplement funds awarded pursuant to this section with  
14          funds from other sources in the implementation of their  
15          plans.

16          (g) ALLOCATIONS.—Except as provided in subsection  
17          (h), funds appropriated to carry out this section shall be  
18          allocated as follows:

19                 (1) 70 percent shall be used to make grants  
20                 under subsection (b)(1);

21                 (2) 15 percent shall be used to make grants  
22                 under subsection (b)(2); and

23                 (3) 15 percent shall be used to make grants  
24                 under subsection (b)(3).

1 (h) OTHER FUNDS.—The Secretary of Energy may  
2 retain an amount, not to exceed \$300,000 per year, to  
3 assist State energy offices in coordinating and imple-  
4 menting the Program. Such funds may be used to develop  
5 reference materials to further define the principles and cri-  
6 teria to achieve high performance school buildings.

7 (i) AUTHORIZATION OF APPROPRIATIONS.—For  
8 grants under subsection (b) there are authorized to be  
9 appropriated—

- 10 (1) \$200,000,000 for fiscal year 2003;
- 11 (2) \$210,000,000 for fiscal year 2004;
- 12 (3) \$220,000,000 for fiscal year 2005;
- 13 (4) \$230,000,000 for fiscal year 2006; and
- 14 (5) such sums as may be necessary for fiscal  
15 year 2007 and each fiscal year thereafter through  
16 fiscal year 2012.

17 (j) DEFINITIONS.—For purposes of this section:

18 (1) HIGH PERFORMANCE SCHOOL BUILDING.—  
19 The term “high performance school building” means  
20 a school building that, in its design, construction,  
21 operation, and maintenance—

- 22 (A) maximizes use of renewable energy and  
23 energy-efficient technologies and systems;
- 24 (B) is cost-effective on a life-cycle basis;
- 25 (C) achieves either—

- 1 (i) the applicable Energy Star build-  
2 ing energy performance ratings, or  
3 (ii) energy consumption levels at least  
4 30 percent below those of the most recent  
5 version of ASHRAE Standard 90.1;
- 6 (D) uses affordable, environmentally pref-  
7 erable, and durable materials;
- 8 (E) enhances indoor environmental quality;
- 9 (F) protects and conserves water; and
- 10 (G) optimizes site potential.
- 11 (2) RENEWABLE ENERGY.—The term “renew-  
12 able energy” means energy produced by solar, wind,  
13 biomass, ocean, geothermal, or hydroelectric power.
- 14 (3) SCHOOL.—The term “school” means—
- 15 (A) an “elementary school” as that term is  
16 defined in section 14101(14) of the Elementary  
17 and Secondary Education Act of 1965 (20  
18 U.S.C. 8801(14)),
- 19 (B) a “secondary school” as that term is  
20 defined in section 14101(25) of the Elementary  
21 and Secondary Education Act of 1965 (20  
22 U.S.C. 8801(25)), or
- 23 (C) an elementary or secondary Indian  
24 school funded by the Bureau of Indian Affairs.

1           (4) STATE EDUCATIONAL AGENCY.—The term  
2           “State educational agency” has the same meaning  
3           given such term in section 14101(28) of the Elemen-  
4           tary and Secondary Education Act of 1965 (20  
5           U.S.C. 8801(28)).

6           (5) STATE ENERGY OFFICE.—The term “State  
7           energy office” means the State agency responsible  
8           for developing State energy conservation plans under  
9           section 362 of the Energy Policy and Conservation  
10          Act (42 U.S.C. 6322), or, if no such agency exists,  
11          a State agency designated by the Governor of the  
12          State.

13 **SEC. 904. LOW INCOME COMMUNITY ENERGY EFFICIENCY**  
14 **PILOT PROGRAM.**

15          (a) GRANTS.—The Secretary of Energy is authorized  
16          to make grants to private, non-profit community develop-  
17          ment organizations and Indian tribe economic develop-  
18          ment entities to improve energy efficiency, identify and de-  
19          velop alternative renewable and distributed energy sup-  
20          plies, and increase energy conservation in low income rural  
21          and urban communities.

22          (b) PURPOSE OF GRANTS.—The Secretary may make  
23          grants on a competitive basis to a community development  
24          organization for—

1           (1) investments that develop alternative renew-  
2           able and distributed energy supplies;

3           (2) energy efficiency projects and energy con-  
4           servation programs;

5           (3) studies and other activities that improve en-  
6           ergy efficiency in low income rural and urban com-  
7           munities;

8           (4) planning and development assistance for in-  
9           creasing the energy efficiency of buildings and facili-  
10          ties; and

11          (5) technical and financial assistance to local  
12          government and private entities on developing new  
13          renewable and distributed sources of power or com-  
14          bined heat and power generation.

15          (c) DEFINITION.—For purposes of this section, the  
16          term “Indian tribe” means any Indian tribe, band, nation,  
17          or other organized group or community, including any  
18          Alaskan Native Village or regional or village corporation  
19          as defined in or established pursuant to the Alaska Native  
20          Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
21          is recognized as eligible for the special programs and serv-  
22          ices provided by the United States to Indians because of  
23          their status as Indians.

24          (d) AUTHORIZATION OF APPROPRIATIONS.—For the  
25          purposes of this section there are authorized to be appro-

1 priated to the Secretary of Energy an amount not to ex-  
 2 ceed \$10 million for fiscal year 2003 and each fiscal year  
 3 thereafter through fiscal year 2005.

4 **Subtitle B—Federal Energy**  
 5 **Efficiency**

6 **SEC. 911. ENERGY MANAGEMENT REQUIREMENTS.**

7 (a) ENERGY REDUCTION GOALS.—Section 543(a)(1)  
 8 of the National Energy Conservation Policy Act (42  
 9 U.S.C. 8253(a)(1)) is amended to read as follows:

10 “(1) Subject to paragraph (2), each agency  
 11 shall apply energy conservation measures to, and  
 12 shall improve the design for the construction of, the  
 13 Federal buildings of the agency (including each in-  
 14 dustrial or laboratory facility) so that the energy  
 15 consumption per gross square foot of the Federal  
 16 buildings of the agency in fiscal years 2002 through  
 17 2011 is reduced, as compared with the energy con-  
 18 sumption per gross square foot of the Federal build-  
 19 ings of the agency in fiscal year 2000, by the per-  
 20 centage specified in the following table:

<b>“Fiscal Year</b>	<b>Percentage reduction</b>
2002 .....	2
2003 .....	4
2004 .....	6
2005 .....	8
2006 .....	10
2007 .....	12
2008 .....	14
2009 .....	16
2010 .....	18
2011 .....	20

1 (b) REVIEW AND REVISION OF ENERGY PERFORM-  
2 ANCE REQUIREMENT.—Section 543(a) of the National  
3 Energy Conservation Policy Act (42 U.S.C. 8253(a)) is  
4 further amended by adding at the end the following:

5 “(3) Not later than December 31, 2010, the  
6 Secretary shall review the results of the implementa-  
7 tion of the energy performance requirement estab-  
8 lished under paragraph (1) and submit to Congress  
9 recommendations concerning energy performance re-  
10 quirements for calendar years 2012 through 2021.”.

11 (c) EXCLUSIONS.—Section 543(c)(1) of the National  
12 Energy Conservation Policy Act (42 U.S.C. 8253(c)(1))  
13 is amended to read as follows:

14 “(1)(A) An agency may exclude, from the en-  
15 ergy performance requirement for a calendar year  
16 established under subsection (a) and the energy  
17 management requirement established under sub-  
18 section (b), any Federal building or collection of  
19 Federal buildings, if the head of the agency finds  
20 that—

21 “(i) compliance with those requirements  
22 would be impracticable;

23 “(ii) the agency has completed and sub-  
24 mitted all federally required energy manage-  
25 ment reports;

1           “(iii) the agency has achieved compliance  
2 with the energy efficiency requirements of this  
3 Act, the Energy Policy Act of 1992, Executives  
4 Orders, and other federal law; and

5           “(iv) the agency has implemented all prac-  
6 ticable, life-cycle cost-effective projects with re-  
7 spect to the Federal building or collection of  
8 Federal buildings to be excluded.

9           “(B) A finding of impracticability under sub-  
10 paragraph (A)(i) shall be based on—

11           “(i) the energy intensiveness of activities  
12 carried out in the Federal building or collection  
13 of Federal buildings; or

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

17           (d) REVIEW BY SECRETARY.—Section 543(c)(2) of  
18 the National Energy Conservation Policy Act (42 U.S.C.  
19 8253(c)(2)) is amended—

20           (1) by striking “impracticability standards” and  
21 inserting “standards for exclusion”; and

22           (2) by striking “a finding of impracticability”  
23 and inserting “the exclusion”.



1 (e) CRITERIA.—Section 543(c) of the National En-  
2 ergy Conservation Policy Act (42 U.S.C. 8253(c)) is fur-  
3 ther amended by adding at the end the following:

4 “(3) Not later than 180 days after the date of  
5 enactment of this paragraph, the Secretary shall  
6 issue guidelines that establish criteria for exclusions  
7 under paragraph (1).”.

8 (f) REPORTS.—Section 548(b) of the National En-  
9 ergy Conservation Policy Act (42 U.S.C. 8258(b)) is  
10 amended—

11 (1) in the subsection heading, by inserting  
12 “THE PRESIDENT AND” before “CONGRESS”; and

13 (2) by inserting “President and” before “Con-  
14 gress”.

15 (g) CONFORMING AMENDMENT.—Section 550(d) of  
16 the National Energy Conservation Policy Act (42 U.S.C.  
17 8258b(d)) is amended in the second sentence by striking  
18 “the 20 percent reduction goal established under section  
19 543(a) of the National Energy Conservation Policy Act  
20 (42 U.S.C. 8253(a)).” and inserting “each of the energy  
21 reduction goals established under section 543(a).”.

1 **SEC. 912. ENERGY USE MEASUREMENT AND ACCOUNT-**  
2 **ABILITY.**

3 Section 543 of the National Energy Conservation  
4 Policy Act (42 U.S.C. 8253) is further amended by adding  
5 at the end the following:

6 “(e) METERING OF ENERGY USE.—

7 “(1) DEADLINE.—By October 1, 2004, all Fed-  
8 eral buildings shall be metered or submetered in ac-  
9 cordance with guidelines established by the Sec-  
10 retary under paragraph (2).

11 “(2) GUIDELINES.—

12 “(A) IN GENERAL.—Not later than 180  
13 days after the date of enactment of this sub-  
14 section, the Secretary, in consultation with the  
15 Department of Defense, the General Service  
16 Administration and representatives from the  
17 metering industry, energy services industry, na-  
18 tional laboratories, universities and federal fa-  
19 cility energy managers, shall establish guide-  
20 lines for agencies to carry out paragraph (1).

21 “(B) REQUIREMENTS FOR GUIDELINES.—

22 The guidelines shall—

23 “(i) take into consideration—

24 “(I) the cost of metering and  
25 submetering and the reduced cost of  
26 operation and maintenance expected

1 to result from metering and sub-  
2 metering;

3 “(II) the extent to which meter-  
4 ing and submetering are expected to  
5 result in increased potential for en-  
6 ergy management, increased potential  
7 for energy savings and energy effi-  
8 ciency improvement, and cost and en-  
9 ergy savings due to utility contract  
10 aggregation; and

11 “(III) the measurement and  
12 verification protocols of the Depart-  
13 ment of Energy;

14 “(ii) include recommendations con-  
15 cerning the amount of funds and the num-  
16 ber of trained personnel necessary to gath-  
17 er and use the metering information to  
18 track and reduce energy use;

19 “(iii) establish 1 or more dates, not  
20 later than 1 year after the date of issuance  
21 of the guidelines, on which the requirement  
22 specified in paragraph (1) shall take effect;  
23 and

24 “(iv) establish exclusions from the re-  
25 quirement specified in paragraph (1) based

1 on the de minimus quantity of energy use  
2 of a Federal building, industrial process, or  
3 structure.

4 “(f) USE OF ENERGY CONSUMPTION DATA IN FED-  
5 ERAL BUILDINGS.—

6 “(1) IN GENERAL.—Beginning not later than  
7 January 1, 2003, each agency shall use, to the max-  
8 imum extent practicable, for the purposes of efficient  
9 use of energy and reduction in the cost of electricity  
10 used in the Federal buildings of the agency, interval  
11 consumption data that measure on a real-time or  
12 daily basis consumption of electricity in the Federal  
13 buildings of the agency.

14 “(2) PLAN.—As soon as practicable after the  
15 date of enactment of this subsection, in a report  
16 submitted by the agency under section 548(a), each  
17 agency shall submit to the Secretary a plan describ-  
18 ing how the agency will implement the requirement  
19 of paragraph (1), including how the agency will des-  
20 ignate personnel primarily responsible for achieving  
21 the requirement.”.

22 **SEC. 913. FEDERAL BUILDING PERFORMANCE STANDARDS.**

23 (a) REVISED STANDARDS.—Section 305(a) of the  
24 Energy Conservation and Production Act (42 U.S.C.  
25 6834(a)) is amended—

1           (1) in paragraph (2)(A), by striking “CABO  
2           Model Energy Code, 1992” and inserting “the 2000  
3           International Energy Conservation Code”; and

4           (2) by adding at the end the following:

5           “(3) REVISED FEDERAL BUILDING ENERGY EF-  
6           FICIENCY PERFORMANCE STANDARDS.—

7           “(A) IN GENERAL.—Not later than 1 year  
8           after the date of enactment of this paragraph,  
9           the Secretary of Energy shall establish, by rule,  
10          revised Federal building energy efficiency per-  
11          formance standards that require that, if cost-  
12          effective—

13                 “(i) new commercial buildings and  
14                 multifamily high rise residential buildings  
15                 be constructed so as to achieve the applica-  
16                 ble Energy Star building energy perform-  
17                 ance ratings or energy consumption levels  
18                 at least 30 percent below those of the most  
19                 recent ASHRAE Standard 90.1, whichever  
20                 results in the greater increase in energy ef-  
21                 ficiency;

22                 “(ii) new residential buildings (other  
23                 than those described in clause (i)) be con-  
24                 structed so as to achieve the applicable En-  
25                 ergy Star building energy performance rat-

1           ings or achieve energy consumption levels  
2           at least 30 percent below the requirements  
3           of the most recent version of the Inter-  
4           national Energy Conservation Code, which-  
5           ever results in the greater increase in en-  
6           ergy efficiency; and

7           “(iii) sustainable design principles are  
8           applied to the siting, design, and construc-  
9           tion of all new and replacement buildings.

10          “(B) ADDITIONAL REVISIONS.—Not later  
11          than 1 year after the date of approval of  
12          amendments to ASHRAE Standard 90.1 or the  
13          2000 International Energy Conservation Code,  
14          the Secretary of Energy shall determine, based  
15          on the cost-effectiveness of the requirements  
16          under the amendments, whether the revised  
17          standards established under this paragraph  
18          should be updated to reflect the amendments.

19          “(C) STATEMENT ON COMPLIANCE OF NEW  
20          BUILDINGS.—In the budget request of the Fed-  
21          eral agency for each fiscal year and each report  
22          submitted by the Federal agency under section  
23          548(a) of the National Energy Conservation  
24          Policy Act (42 U.S.C. 8258(a)), the head of  
25          each Federal agency shall include—

1                   “(i) a list of all new Federal buildings  
2                   of the Federal agency; and

3                   “(ii) a statement concerning whether  
4                   the Federal buildings meet or exceed the  
5                   revised standards established under this  
6                   paragraph, including a monitoring and  
7                   commissioning report that is in compliance  
8                   with the measurement and verification pro-  
9                   tocols of the Department of Energy.

10                  “(D) AUTHORIZATION OF APPROPRIA-  
11                  TIONS.—There are authorized to be appro-  
12                  priated such sums as are necessary to carry out  
13                  this paragraph and to implement the revised  
14                  standards established under this paragraph.”.

15                  (b) ENERGY LABELING PROGRAM.—Section 305(a)  
16 of the Energy Conservation and Production Act (42  
17 U.S.C. 6834(a)) is further amended by adding at the end  
18 the following:

19                  “(e) ENERGY LABELING PROGRAM.—The Secretary  
20 of Energy, in cooperation with the Administrator of the  
21 Environmental Protection Agency, shall develop an energy  
22 labeling program for new Federal buildings that exceed  
23 the revised standards established under subsection (a)(3)  
24 by 15 percent or more.”.

1 **SEC. 914. PROCUREMENT OF ENERGY EFFICIENT PROD-**  
2 **UCTS.**

3 (a) REQUIREMENTS.—Part 3 of title V of the Na-  
4 tional Energy Conservation Policy Act is amended by add-  
5 ing at the end the following:

6 **“SEC. 552. FEDERAL PROCUREMENT OF ENERGY EFFI-**  
7 **CIENT PRODUCTS.**

8 “(a) DEFINITIONS.—In this section:

9 “(1) ENERGY STAR PRODUCT.—The term ‘En-  
10 ergy Star product’ means a product that is rated for  
11 energy efficiency under an Energy Star program.

12 “(2) ENERGY STAR PROGRAM.—The term ‘En-  
13 ergy Star program’ means the program established  
14 by section 324A of the Energy Policy and Conserva-  
15 tion Act.

16 “(3) EXECUTIVE AGENCY.—The term ‘executive  
17 agency’ has the meaning given the term in section  
18 4 of the Office of Federal Procurement Policy Act  
19 (41 U.S.C. 403).

20 “(4) FEMP DESIGNATED PRODUCT.—The term  
21 ‘FEMP designated product’ means a product that is  
22 designated under the Federal Energy Management  
23 Program of the Department of Energy as being  
24 among the highest 25 percent of equivalent products  
25 for energy efficiency.



1       “(b) PROCUREMENT OF ENERGY EFFICIENT PROD-  
2 UCTS.—

3           “(1) REQUIREMENT.—To meet the require-  
4 ments of an executive agency for an energy con-  
5 suming product, the head of the executive agency  
6 shall, except as provided in paragraph (2), procure—

7                   “(A) an Energy Star product; or

8                   “(B) a FEMP designated product.

9           “(2) EXCEPTIONS.—The head of an executive  
10 agency is not required to procure an Energy Star  
11 product or FEMP designated product under para-  
12 graph (1) if—

13                   “(A) an Energy Star product or FEMP  
14 designated product is not cost effective over the  
15 life cycle of the product; or

16                   “(B) no Energy Star product or FEMP  
17 designated product is reasonably available that  
18 meets the requirements of the executive agency.

19           “(3) PROCUREMENT PLANNING.—The head of  
20 an executive agency shall incorporate into the speci-  
21 fications for all procurements involving energy con-  
22 suming products and systems, and into the factors  
23 for the evaluation of offers received for the procure-  
24 ment, criteria for energy efficiency that are con-

1       sistent with the criteria used for rating Energy Star  
2       products and for rating FEMP designated products.

3       “(c) LISTING OF ENERGY EFFICIENT PRODUCTS IN  
4 FEDERAL CATALOGS.—Energy Star and FEMP des-  
5 igned products shall be clearly identified and promi-  
6 nently displayed in any inventory or listing of products  
7 by the General Services Administration or the Defense Lo-  
8 gistics Agency.

9       (b) CONFORMING AMENDMENT.—The table of con-  
10 tents in section 1(b) of the National Energy Conservation  
11 Policy Act (42 U.S.C. 8201 note) is amended by inserting  
12 after the item relating to section 551 the following:

“Sec. 552. Federal Government procurement of energy efficient products.”

13       (c) REGULATIONS.—Not later than 180 days after  
14 the effective date specified in subsection (f), the Secretary  
15 of Energy shall issue guidelines to carry out section 552  
16 of the National Energy Conservation Policy Act (as added  
17 by subsection (a)).

18       (d) DESIGNATION OF ENERGY STAR PRODUCTS.—  
19 The Administrator of the Environmental Protection Agen-  
20 cy and the Secretary of Energy shall expedite the process  
21 of designating products as Energy Star products (as de-  
22 fined in section 552 of the National Energy Conservation  
23 Policy Act (as added by subsection (a))).

24       (e) DESIGNATION OF ELECTRIC MOTORS.—In the  
25 case of electric motors of 1 to 500 horsepower, agencies

1 shall select only premium efficient motors that meet a  
2 standard designated by the Secretary. The Secretary shall  
3 designate such a standard within 120 days of the enact-  
4 ment of this paragraph, after considering the rec-  
5 ommendations of associated electric motor manufacturers  
6 and energy efficiency groups.

7 (f) EFFECTIVE DATE.—Subsection (a) and the  
8 amendment made by that subsection take effect on the  
9 date that is 180 days after the date of enactment of this  
10 Act.

11 **SEC. 915. REPEAL OF ENERGY SAVINGS PERFORMANCE**

12 **CONTRACT SUNSET.**

13 Section 801(c) of the National Energy Conservation  
14 Policy Act (42 U.S.C. 8287(c)) is repealed.

15 **SEC. 916. ENERGY SAVINGS PERFORMANCE CONTRACT**

16 **DEFINITIONS.**

17 (a) ENERGY SAVINGS.—Section 804(2) of the Na-  
18 tional Energy Conservation Policy Act (42 U.S.C.  
19 8287c(2)) is amended to read as follows:

20 “(2) The term ‘energy savings’ means a reduc-  
21 tion in the cost of energy or water, from a base cost  
22 established through a methodology set forth in the  
23 contract, used in an existing federally owned build-  
24 ing or buildings or other federally owned facilities as  
25 a result of—

1           “(A) the lease or purchase of operating  
2           equipment, improvements, altered operation and  
3           maintenance, or technical services;

4           “(B) the increased efficient use of existing  
5           energy sources by cogeneration or heat recovery,  
6           excluding any cogeneration process for  
7           other than a federally owned building or build-  
8           ings or other federally owned facilities; or

9           “(C) the increased efficient use of existing  
10          water sources.”.

11          (b) ENERGY SAVINGS CONTRACT.—Section 804(3) of  
12 the National Energy Conservation Policy Act (42 U.S.C.  
13 8287c(3)) is amended to read as follows:

14           “(3) The terms ‘energy savings contract’ and  
15           ‘energy savings performance contract’ mean a con-  
16           tract which provides for the performance of services  
17           for the design, acquisition, installation, testing, oper-  
18           ation, and, where appropriate, maintenance and re-  
19           pair, of an identified energy or water conservation  
20           measure or series of measures at one or more loca-  
21           tions.”.

22          (c) ENERGY OR WATER CONSERVATION MEASURE.—  
23 Section 804(4) of the National Energy Conservation Pol-  
24 icy Act (42 U.S.C. 8287c(4)) is amended to read as fol-  
25 lows:

1           “(4) The term ‘energy or water conservation  
2           measure’ means—

3                   “(A) an energy conservation measure, as  
4                   defined in section 551(4) (42 U.S.C. 8259(4));  
5                   or

6                   “(B) a water conservation measure that  
7                   improves water efficiency, is life cycle cost effec-  
8                   tive, and involves water conservation, water re-  
9                   cycling or reuse, more efficient treatment of  
10                  wastewater or stormwater, improvements in op-  
11                  eration or maintenance efficiencies, retrofit ac-  
12                  tivities or other related activities, not at a Fed-  
13                  eral hydroelectric facility.”.

14 **SEC. 917. REVIEW OF ENERGY SAVINGS PERFORMANCE**  
15                   **CONTRACT PROGRAM.**

16           Within 180 days after the date of the enactment of  
17 this Act, the Secretary of Energy shall complete a review  
18 of the Energy Savings Performance Contract program to  
19 identify statutory, regulatory, and administrative obstacles  
20 that prevent Federal agencies from fully utilizing the pro-  
21 gram. In addition, this review shall identify all areas for  
22 increasing program flexibility and effectiveness, including  
23 audit and measurement verification requirements, ac-  
24 counting for energy use in determining savings, con-  
25 tracting requirements, and energy efficiency services cov-

1 ered. The Secretary shall report these findings to the  
2 Committee on Energy and Commerce of the House of  
3 Representatives and the Committee on Energy and Nat-  
4 ural Resources of the Senate, and shall implement identi-  
5 fied administrative and regulatory changes to increase  
6 program flexibility and effectiveness to the extent that  
7 such changes are consistent with statutory authority.

8 **SEC. 918. FEDERAL ENERGY BANK.**

9 Part 3 of title V of the National Energy Conservation  
10 Policy Act is amended by adding at the end the following:

11 **“SEC. 553. FEDERAL ENERGY BANK.**

12 “(a) DEFINITIONS.—In this section:

13 “(1) BANK.—The term ‘Bank’ means the Fed-  
14 eral Energy Bank established by subsection (b).

15 “(2) ENERGY OR WATER EFFICIENCY  
16 PROJECT.—The term ‘energy or water efficiency  
17 project’ means a project that assists a Federal agen-  
18 cy in meeting or exceeding the energy or water effi-  
19 ciency requirements of—

20 “(A) this part;

21 “(B) title VIII;

22 “(C) subtitle F of title I of the Energy  
23 Policy Act of 1992 (42 U.S.C. 8262 et seq.); or

24 “(D) any applicable Executive order, in-  
25 cluding Executive Order No. 13123.

1           “(3) FEDERAL AGENCY.—The term ‘Federal  
2 agency’ means—

3           “(A) an Executive agency (as defined in  
4 section 105 of title 5, United States Code);

5           “(B) the United States Postal Service;

6           “(C) Congress and any other entity in the  
7 legislative branch; and

8           “(D) a Federal court and any other entity  
9 in the judicial branch.

10          “(b) ESTABLISHMENT OF BANK.—

11           “(1) IN GENERAL.—There is established in the  
12 Treasury of the United States a fund to be known  
13 as the ‘Federal Energy Bank’, consisting of—

14           “(A) such amounts as are deposited in the  
15 Bank under paragraph (2);

16           “(B) such amounts as are repaid to the  
17 Bank under subsection (c)(2)(D); and

18           “(C) any interest earned on investment of  
19 amounts in the Bank under paragraph (3).

20          “(2) DEPOSITS IN BANK.—

21           “(A) IN GENERAL.—Subject to the avail-  
22 ability of appropriations and to subparagraph  
23 (B), the Secretary of the Treasury shall deposit  
24 in the Bank an amount equal to \$250,000,000

1 in fiscal year 2003 and in each fiscal year  
2 thereafter.

3 “(B) MAXIMUM AMOUNT IN BANK.—De-  
4 posits under subparagraph (A) shall cease be-  
5 ginning with the fiscal year following the fiscal  
6 year in which the amounts in the Bank (includ-  
7 ing amounts on loan from the Bank) become  
8 equal to or exceed \$1,000,000,000.

9 “(3) INVESTMENT OF AMOUNTS.—The Sec-  
10 retary of the Treasury shall invest such portion of  
11 the Bank as is not, in the judgment of the Sec-  
12 retary, required to meet current withdrawals. Invest-  
13 ments may be made only in interest-bearing obliga-  
14 tions of the United States.

15 “(c) LOANS FROM THE BANK.—

16 “(1) IN GENERAL.—The Secretary of the  
17 Treasury shall transfer from the Bank to the Sec-  
18 retary such amounts as are appropriated to carry  
19 out the loan program under paragraph (2).

20 “(2) LOAN PROGRAM.—

21 “(A) ESTABLISHMENT.—

22 “(i) IN GENERAL.—In accordance  
23 with subsection (d), the Secretary, in con-  
24 sultation with the Secretary of Defense,  
25 the Administrator of General Services, and



1 the Director of the Office of Management  
2 and Budget, shall establish a program to  
3 make loans of amounts in the Bank to any  
4 Federal agency that submits an application  
5 satisfactory to the Secretary in order to  
6 pay the costs of a project described in sub-  
7 paragraph (C).

8 “(ii) COMMENCEMENT OF OPER-  
9 ATIONS.—The Secretary may begin—

10 “(I) accepting applications for  
11 loans from the Bank in fiscal year  
12 2002; and

13 “(II) making loans from the  
14 Bank in fiscal year 2003.

15 “(B) ENERGY SAVINGS PERFORMANCE  
16 CONTRACTING FUNDING.—To the extent prac-  
17 ticable, an agency shall not submit a project for  
18 which energy performance contracting funding  
19 is available and is acceptable to the Federal  
20 agency under title VIII.

21 “(C) PURPOSES OF LOAN.—

22 “(i) IN GENERAL.—A loan from the  
23 Bank may be used to pay—

24 “(I) the costs of an energy or  
25 water efficiency project, or a renew-

1           able or alternative energy project, for  
2           a new or existing Federal building (in-  
3           cluding selection and design of the  
4           project);

5           “(II) the costs of an energy me-  
6           tering plan and metering equipment  
7           installed pursuant to section 543(e) or  
8           for the purpose of verification of the  
9           energy savings under an energy sav-  
10          ings performance contract under title  
11          VIII; or

12          “(III) at the time of contracting,  
13          the costs of cofunding of an energy  
14          savings performance contract (includ-  
15          ing a utility energy service agreement)  
16          in order to shorten the payback period  
17          of the project that is the subject of  
18          the energy savings performance con-  
19          tract.

20          “(ii) LIMITATION.—A Federal agency  
21          may use not more than 10 percent of the  
22          amount of a loan under subclause (I) or  
23          (II) of clause (i) to pay the costs of admin-  
24          istration and proposal development (includ-  
25          ing data collection and energy surveys).

1           “(iii) RENEWABLE AND ALTERNATIVE  
2 ENERGY PROJECTS.—Not more than 25  
3 percent of the amount on loan from the  
4 Bank at any time may be loaned for re-  
5 newable energy and alternative energy  
6 projects (as defined by the Secretary in ac-  
7 cordance with applicable law (including  
8 Executive Orders)).

9           “(D) REPAYMENTS.—

10           “(i) IN GENERAL.—Subject to clauses  
11 (ii) through (iv), a Federal agency shall  
12 repay to the Bank the principal amount of  
13 a loan plus interest at a rate determined  
14 by the President, in consultation with the  
15 Secretary and the Secretary of the Treas-  
16 ury.

17           “(ii) WAIVER OR REDUCTION OF IN-  
18 TEREST.—The Secretary may waive or re-  
19 duce the rate of interest required to be  
20 paid under clause (i) if the Secretary de-  
21 termines that payment of interest by a  
22 Federal agency at the rate determined  
23 under that clause is not required to fund  
24 the operations of the Bank.

1           “(iii) DETERMINATION OF INTEREST  
2           RATE.—The interest rate determined  
3           under clause (i) shall be at a rate that is  
4           sufficient to ensure that, beginning not  
5           later than October 1, 2007, interest pay-  
6           ments will be sufficient to fully fund the  
7           operations of the Bank.

8           “(iv) INSUFFICIENCY OF APPROPRIA-  
9           TIONS.—

10           “(I) REQUEST FOR APPROPRIA-  
11           TIONS.—As part of the budget request  
12           of the Federal agency for each fiscal  
13           year, the head of each Federal agency  
14           shall submit to the President a re-  
15           quest for such amounts as are nec-  
16           essary to make such repayments as  
17           are expected to become due in the fis-  
18           cal year under this subparagraph.

19           “(II) SUSPENSION OF REPAY-  
20           MENT REQUIREMENT.—If, for any fis-  
21           cal year, sufficient appropriations are  
22           not made available to a Federal agen-  
23           cy to make repayments under this  
24           subparagraph, the Bank shall suspend  
25           the requirement of repayment under

1                   this subparagraph until such appro-  
2                   priations are made available.

3                   “(E) FEDERAL AGENCY ENERGY BUDG-  
4                   ETS.—Until a loan is repaid, a Federal agency  
5                   budget submitted by the President to Congress  
6                   for a fiscal year shall not be reduced by the  
7                   value of energy savings accrued as a result of  
8                   any energy conservation measure implemented  
9                   using amounts from the Bank.

10                  “(F) NO RESCISSION OR REPROGRAM-  
11                  MING.—A Federal agency shall not rescind or  
12                  reprogram loan amounts made available from  
13                  the Bank except as permitted under guidelines  
14                  issued under subparagraph (G).

15                  “(G) GUIDELINES.—The Secretary shall  
16                  issue guidelines for implementation of the loan  
17                  program under this paragraph, including selec-  
18                  tion criteria, maximum loan amounts, and loan  
19                  repayment terms.

20                  “(d) SELECTION CRITERIA.—

21                         “(1) IN GENERAL.—The Secretary shall estab-  
22                         lish criteria for the selection of projects to be award-  
23                         ed loans in accordance with paragraph (2).

24                         “(2) SELECTION CRITERIA.—

1           “(A) IN GENERAL.—The Secretary may  
2           make loans from the Bank only for a project  
3           that—

4                   “(i) is technically feasible;

5                   “(ii) is determined to be cost-effective  
6           using life cycle cost methods established by  
7           the Secretary;

8                   “(iii) includes a measurement and  
9           management component, based on the  
10          measurement and verification protocols of  
11          the Department of Energy, to—

12                   “(I) commission energy savings  
13          for new and existing Federal facilities;

14                   “(II) monitor and improve energy  
15          efficiency management at existing  
16          Federal facilities; and

17                   “(III) verify the energy savings  
18          under an energy savings performance  
19          contract under title VIII; and

20                   “(iv)(I) in the case of renewable en-  
21          ergy or alternative energy project, has a  
22          simple payback period of not more than 15  
23          years; and

1                   “(II) in the case of any other project,  
2                   has a simple payback period of not more  
3                   than 10 years.

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

6                   “(i) are a component of a comprehen-  
7                   sive energy management project for a Fed-  
8                   eral facility; and

9                   “(ii) are designed to significantly re-  
10                  duce the energy use of the Federal facility.

11               “(e) REPORTS AND AUDITS.—

12               “(1) REPORTS TO THE SECRETARY.—Not later  
13               than 1 year after the completion of installation of a  
14               project that has a cost of more than \$1,000,000,  
15               and annually thereafter, a Federal agency shall sub-  
16               mit to the Secretary a report that—

17               “(A) states whether the project meets or  
18               fails to meet the energy savings projections for  
19               the project; and

20               “(B) for each project that fails to meet the  
21               energy savings projections, states the reasons  
22               for the failure and describes proposed remedies.

23               “(2) AUDITS.—The Secretary may audit, or re-  
24               quire a Federal agency that receives a loan from the  
25               Bank to audit, any project financed with amounts

1 from the Bank to assess the performance of the  
2 project.

3 “(3) REPORTS TO CONGRESS.—At the end of  
4 each fiscal year, the Secretary shall submit to Con-  
5 gress a report on the operations of the Bank, includ-  
6 ing a statement of—

7 “(A) the total receipts by the Bank;

8 “(B) the total amount of loans from the  
9 Bank to each Federal agency; and

10 “(C) the estimated cost and energy savings  
11 resulting from projects funded with loans from  
12 the Bank.

13 “(f) AUTHORIZATION OF APPROPRIATIONS.—There  
14 are authorized to be appropriated to such sums as are nec-  
15 essary to carry out this section.”.

16 **SEC. 919. ENERGY AND WATER SAVING MEASURES IN CON-**  
17 **GRESSIONAL BUILDINGS.**

18 (a) IN GENERAL.—Part 3 of title V of the National  
19 Energy Conservation Policy Act is amended by adding at  
20 the end:

21 **“SEC. 554. ENERGY AND WATER SAVINGS MEASURES IN**  
22 **CONGRESSIONAL BUILDINGS.**

23 “(a) IN GENERAL.—The Architect of the Capitol—

24 “(1) shall develop, update, and implement a  
25 cost-effective energy conservation and management



1 plan (referred to in this section as the ‘plan’) for all  
2 facilities administered by the Congress (referred to  
3 in this section as ‘congressional buildings’) to meet  
4 the energy performance requirements for Federal  
5 buildings established under section 543(a)(1).

6 “(2) shall submit the plan to Congress, not  
7 later than 180 days after the date of enactment of  
8 this section.

9 “(b) PLAN REQUIREMENTS.—The plan shall  
10 include—

11 “(1) a description of the life-cycle cost analysis  
12 used to determine the cost-effectiveness of proposed  
13 energy efficiency projects;

14 “(2) a schedule of energy surveys to ensure  
15 complete surveys of all congressional buildings every  
16 five years to determine the cost and payback period  
17 of energy and water conservation measures;

18 “(3) a strategy for installation of life cycle cost  
19 effective energy and water conservation measures;

20 “(4) the results of a study of the costs and ben-  
21 efits of installation of submetering in congressional  
22 buildings; and

23 “(5) information packages and ‘how-to’ guides  
24 for each Member and employing authority of Con-

1       gress that detail simple, cost-effective methods to  
2       save energy and taxpayer dollars in the workplace.

3       “(c) CONTRACTING AUTHORITY.—The Architect—

4               “(1) may contract with nongovernmental enti-  
5       ties and use private sector capital to finance energy  
6       conservation projects and meet energy performance  
7       requirements; and

8               “(2) may use innovative contracting methods  
9       that will attract private sector funding for the instal-  
10      lation of energy efficient and renewable energy tech-  
11      nology, such as energy savings performance con-  
12      tracts described in title VIII.

13      “(d) CAPITOL VISITOR CENTER.—The Architect—

14              “(1) shall ensure that state-of-the-art energy ef-  
15      ficiency and renewable energy technologies are used  
16      in the construction and design of the Visitor Center;  
17      and

18              “(2) shall include in the Visitor Center an ex-  
19      hibit on the energy efficiency and renewable energy  
20      measures used in congressional buildings.

21      “(e) ANNUAL REPORT.—The Architect shall submit  
22      to Congress annually a report on congressional energy  
23      management and conservation programs required under  
24      this section that describes in detail—

1           “(1) energy expenditures and savings estimates  
2           for each facility;

3           “(2) energy management and conservation  
4           projects; and

5           “(3) future priorities to ensure compliance with  
6           this section.”.

7           (b) REPEAL.—Section 310 of the Legislative Branch  
8           Appropriations Act, 1999 (40 U.S.C. 166i), is repealed.

9           **Subtitle C—Industrial Efficiency**  
10           **and Consumer Products**

11           **SEC. 921. VOLUNTARY COMMITMENTS TO REDUCE INDUS-**  
12           **TRIAL ENERGY INTENSITY.**

13           (a) VOLUNTARY AGREEMENTS.—The Secretary of  
14           Energy shall enter into voluntary agreements with one or  
15           more persons in industrial sectors that consume signifi-  
16           cant amounts of primary energy per unit of physical out-  
17           put to reduce the energy intensity of their production ac-  
18           tivities.

19           (b) GOAL.—Voluntary agreements under this section  
20           shall have a goal of reducing energy intensity by not less  
21           than 2.5 percent each year from 2002 through 2012.

22           (c) RECOGNITION.—The Secretary of Energy, in co-  
23           operation with the Administrator of the Environmental  
24           Protection Agency and other appropriate federal agencies,  
25           shall develop mechanisms to recognize and publicize the

1 achievements of participants in voluntary agreements  
2 under this section.

3 (d) DEFINITION.—In this section, the term “energy  
4 intensity” means the primary energy consumed per unit  
5 of physical output in an industrial process.

6 (e) TECHNICAL ASSISTANCE.—An entity that enters  
7 into an agreement under this section and continues to  
8 make a good faith effort to achieve the energy efficiency  
9 goals specified in the agreement shall be eligible to receive  
10 from the Secretary a grant or technical assistance as ap-  
11 propriate to assist in the achievement of those goals.

12 (f) REPORT.—Not later than June 30, 2008 and  
13 June 30, 2012, the Secretary shall submit to Congress a  
14 report that evaluates the success of the voluntary agree-  
15 ments, with independent verification of a sample of the  
16 energy savings estimates provided by participating firms.

17 **SEC. 922. AUTHORITY TO SET STANDARDS FOR COMMER-**  
18 **CIAL PRODUCTS.**

19 Part B of title III of the Energy Policy and Conserva-  
20 tion Act (42 U.S.C. 6291 et seq.) is amended as follows:

21 (1) In the heading for such part, by inserting  
22 “AND COMMERCIAL” after “CONSUMER”.

23 (2) In section 321(2), by inserting “or commer-  
24 cial” after “consumer”.

1           (3) In paragraphs (4), (5), and (15) of section  
2           321, by striking “consumer” each place it appears  
3           and inserting “covered”.

4           (4) In section 322(a), by inserting “or commer-  
5           cial” after “consumer” the first place it appears in  
6           the material preceding paragraph (1).

7           (5) In section 322(b), by inserting “or commer-  
8           cial” after “consumer” each place it appears.

9           (6) In section 322 (b)(1)(B) and (b)(2)(A), by  
10          inserting “or per-business in the case of a commer-  
11          cial product” after “per-household” each place it ap-  
12          pears.

13          (7) In section 322 (b)(2)(A), by inserting “or  
14          businesses in the case of commercial products” after  
15          “households” each place it appears.

16          (8) In section 322 (B)(2)(C)—

17                 (A) by striking “term” and inserting  
18                 “terms”; and

19                 (B) by inserting “and ‘business’” after  
20                 “‘household’”.

21          (9) In section 323 (b)(1)(B) by inserting “or  
22          commercial” after “consumer”.

1 **SEC. 923. ADDITIONAL DEFINITIONS.**

2 Section 321 of the Energy Policy and Conservation  
3 Act (42 U.S.C. 6291) is amended by adding at the end  
4 the following:

5 “(32) The term ‘battery charger’ means a de-  
6 vice that charges batteries for consumer products.

7 “(33) The term ‘commercial refrigerator, freez-  
8 er and refrigerator-freezer’ means a refrigerator,  
9 freezer or refrigerator-freezer that—

10 “(A) is not a consumer product regulated  
11 under this Act; and

12 “(B) incorporates most components in-  
13 volved in the vapor-compression cycle and the  
14 refrigerated compartment in a single package.

15 “(34) The term ‘external power supply’ means  
16 an external power supply circuit that is used to con-  
17 vert household electric current into either DC cur-  
18 rent or lower-voltage AC current to operate a con-  
19 sumer product.

20 “(35) The term ‘illuminated exit sign’ means a  
21 sign that—

22 “(A) is designed to be permanently fixed in  
23 place to identify an exit; and

24 “(B) consists of—

1                   “(i) an electrically powered integral  
2 light source that illuminates the legend  
3 ‘EXIT’ and any directional indicators; and

4                   “(ii) provides contrast between the  
5 legend, any directional indicators, and the  
6 background.

7                   “(36)(A) Except as provided in subsection (B),  
8 the term ‘low-voltage dry-type transformer’ means a  
9 transformer that—

10                   “(i) has an input voltage of 600 volts or  
11 less;

12                   “(ii) is air-cooled;

13                   “(iii) does not use oil as a coolant; and

14                   “(iv) is rated for operation at a frequency  
15 of 60 Hertz.

16                   “(B) The term ‘low-voltage dry-type trans-  
17 former’ does not include—

18                   “(i) transformers with multiple voltage  
19 taps, with the highest voltage tap equaling at  
20 least 20 percent more than the lowest voltage  
21 tap;

22                   “(ii) transformers that are designed to be  
23 used in a special purpose application, such as  
24 transformers commonly known as drive trans-  
25 formers, rectifier transformers, autotrans-

1           formers, Uninterruptible Power System trans-  
2           formers, impedance transformers, harmonic  
3           transformers, regulating transformers, sealed  
4           and nonventilating transformers, machine tool  
5           transformers, welding transformers, grounding  
6           transformers, or testing transformers; or

7           “(iii) any transformer not listed in clause  
8           (ii) that is excluded by the Secretary by rule be-  
9           cause the transformer is designed for a special  
10          application and the application of standards to  
11          the transformer would not result in significant  
12          energy savings.

13          “(37) The term “standby mode” means the  
14          lowest amount of electric power used by a household  
15          appliance when not performing its active functions,  
16          as defined on an individual product basis by the Sec-  
17          retary.

18          “(38) The term ‘torechiere’ means a portable  
19          electric lamp with a reflector bowl that directs light  
20          upward so as to give indirect illumination.

21          “(39) The term ‘transformer’ means a device  
22          consisting of 2 or more coils of insulated wire that  
23          transfers alternating current by electromagnetic in-  
24          duction from one coil to another to change the origi-  
25          nal voltage or current value.



1           “(40) The term ‘unit heater’ means a self-con-  
2           tained fan-type heater designed to be installed with-  
3           in the heated space, except that such term does not  
4           include a warm air furnace.

5 **SEC. 924. ADDITIONAL TEST PROCEDURES.**

6           (a) **EXIT SIGNS.**—Section 323(b) of the Energy Pol-  
7           icy and Conservation Act (42 U.S.C. 6293) is amended  
8           by adding at the end the following:

9           “(9) Test procedures for illuminated exit signs  
10           shall be based on the test method used under the  
11           Energy Star program of the Environmental Protec-  
12           tion Agency for illuminated exit signs, as in effect on  
13           the date of enactment of this paragraph.

14           “(10) Test procedures for low voltage dry-type  
15           distribution transformers shall be based on the  
16           ‘Standard Test Method for Measuring the Energy  
17           Consumption of Distribution Transformers’ pre-  
18           scribed by the National Electrical Manufacturers As-  
19           sociation (NEMA TP 2–1998). The Secretary may  
20           review and revise this test procedure based on future  
21           revisions to such standard test method.

22           (b) **ADDITIONAL CONSUMER AND COMMERCIAL**  
23 **PRODUCTS.**—Section 323 of the Energy Policy and Con-  
24           servation Act (42 U.S.C. 6293) is further amended by  
25           adding at the end the following:

1       “(f) **ADDITIONAL CONSUMER AND COMMERCIAL**  
2 **PRODUCTS.**—The Secretary shall within 24 months after  
3 the date of enactment of this subsection prescribe testing  
4 requirements for suspended ceiling fans, refrigerated bot-  
5 tled or canned beverage vending machines, commercial  
6 unit heaters, and commercial refrigerators, freezers and  
7 refrigerator-freezers. Such testing requirements shall be  
8 based on existing test procedures used in industry to the  
9 extent practical and reasonable. In the case of suspended  
10 ceiling fans, such test procedures shall include efficiency  
11 at both maximum output and at an output no more than  
12 50 percent of the maximum output.”.

13 **SEC. 925. ENERGY LABELING.**

14       (a) **RULEMAKING ON EFFECTIVENESS OF CONSUMER**  
15 **PRODUCT LABELING.**—Paragraph (2) of section 324(a) of  
16 the Energy Policy and Conservation Act (42 U.S.C.  
17 6294(a)(2)) is amended by adding at the end the fol-  
18 lowing:

19               “(F) Not later than three months after the  
20               date of enactment of this subparagraph, the  
21               Commission shall initiate a rulemaking to con-  
22               sider the effectiveness of the current consumer  
23               products labeling program in assisting con-  
24               sumers in making purchasing decisions and im-  
25               proving energy efficiency and to consider

1 changes to the labeling rules that would im-  
2 prove the effectiveness of consumer product la-  
3 bels. Such rulemaking shall be completed within  
4 15 months of the date of enactment of this sub-  
5 paragraph.”.

6 (b) RULEMAKING ON LABELING FOR ADDITIONAL  
7 PRODUCTS.—Section 324(a) of the Energy Policy and  
8 Conservation Act (42 U.S.C. 6294(a)) is further amended  
9 by adding at the end the following:

10 “(5) The Secretary shall within 6 months after  
11 the date on which energy conservation standards are  
12 prescribed by the Secretary for covered products re-  
13 ferred to in subsections (u) and (v) of section 325,  
14 and within 18 months of enactment of this para-  
15 graph for products referred to in subsections (w)  
16 through (y) of section 325, prescribe, by rule, label-  
17 ing requirements for such products. Labeling re-  
18 quirements adopted under this paragraph shall take  
19 effect on the same date as the standards set pursu-  
20 ant to sections 325(v) through (y).

21 **SEC. 926. ENERGY STAR PROGRAM.**

22 The Energy Policy and Conservation Act (42 U.S.C.  
23 6201 and following) is amended by inserting after section  
24 324 the following:

1                                   “ENERGY STAR PROGRAM.

2           “SEC. 324A. (a) IN GENERAL.—There is established  
3 at the Department of Energy and the Environmental Pro-  
4 tection Agency a program to identify and promote energy-  
5 efficient products and buildings in order to reduce energy  
6 consumption, improve energy security, and reduce pollu-  
7 tion through labeling of products and buildings that meet  
8 the highest energy efficiency standards. Responsibilities  
9 under the program shall be divided between the Depart-  
10 ment of Energy and the Environmental Protection Agency  
11 consistent with the terms of agreements between the two  
12 agencies. The Administrator and the Secretary shall—

13                   “(1) promote Energy Star compliant tech-  
14 nologies as the preferred technologies in the market-  
15 place for achieving energy efficiency and to reduce  
16 pollution;

17                   “(2) work to enhance public awareness of the  
18 Energy Star label;

19                   “(3) preserve the integrity of the Energy Star  
20 label; and

21                   “(4) solicit the comments of interested parties  
22 in establishing a new Energy Star product category  
23 or in revising a product category, and upon adoption  
24 of a new or revised product category provide an ex-

1 planation of the decision that responds to significant  
2 public comments.”.

3 **SEC. 927. ENERGY CONSERVATION STANDARDS FOR CEN-**  
4 **TRAL AIR CONDITIONERS AND HEAT PUMPS.**

5 Section 325(d) of the Energy Policy and Conserva-  
6 tion Act (42 U.S.C. 6295(d)) is amended to read as fol-  
7 lows:

8 “(1) Except as provided in paragraph (3), the  
9 seasonal energy efficiency ratio of central air condi-  
10 tioners and central air conditioning heat pumps  
11 manufactured on or after January 23, 2006 shall be  
12 no less than 13.0.

13 “(2) Except as provided in paragraph (4), the  
14 heating seasonal performance factor of central air  
15 conditioning heat pumps manufactured on or after  
16 January 23, 2006 shall be no less than 7.7.

17 “(3) The seasonal energy efficiency ratio of cen-  
18 tral air conditioners or central air conditioning heat  
19 pumps manufactured on or after January 23, 2006  
20 shall be no less than 12.0 for products that—

21 “(A) have a rated cooling capacity equal to  
22 or less than 30,000 Btu per hour;

23 “(B) have an outdoor or indoor unit hav-  
24 ing at least two overall exterior dimensions or  
25 an overall displacement that—

1           “(i) is substantially smaller than those  
2           of other units that are currently installed  
3           in site-built single family homes, and of a  
4           similar cooling or heating capacity, and

5           “(ii) if increased would result in a sig-  
6           nificant increase in the cost of installation  
7           or would result in a significant loss in the  
8           utility of the product to the consumer; and

9           “(C) were available for purchase in the  
10           United States as of December 1, 2000.

11           “(4) The heating seasonal performance factor  
12           of central air conditioning heat pumps manufactured  
13           on or after January 25, 2006 shall not be less than  
14           7.4 for products that meet the criteria in paragraph  
15           (3).

16           “(5) The Secretary may postpone the require-  
17           ments of paragraphs (3) and (4) for specific product  
18           types until a date no later than January 23, 2010.

19           “(6) The Secretary shall publish a final rule not  
20           later than January 1, 2006 to determine whether  
21           the standards in effect for central air conditioners  
22           and central air conditioning heat pumps should be  
23           amended. Such rule shall provide that any amend-  
24           ment shall apply to products manufactured on or  
25           after January 1, 2011.”.

1 **SEC. 928. ENERGY CONSERVATION STANDARDS FOR ADDI-**  
2 **TIONAL CONSUMER AND COMMERCIAL PROD-**  
3 **UCTS.**

4 Section 325 of the Energy Policy and Conservation  
5 Act (42 U.S.C. 6295) is amended by adding at the end  
6 the following:

7 “(u) **STANDBY MODE ELECTRIC ENERGY CONSUMP-**  
8 **TION.**—

9 “(1) **INITIAL RULEMAKING.**—

10 “(A) The Secretary shall, within 18  
11 months after the date of enactment of this sub-  
12 section, prescribe by notice and comment, defi-  
13 nitions of standby mode and test procedures for  
14 the standby mode power use of battery chargers  
15 and external power supplies. In establishing  
16 these test procedures, the Secretary shall con-  
17 sider, among other factors, existing test proce-  
18 dures used for measuring energy consumption  
19 in standby mode and assess the current and  
20 projected future market for battery chargers  
21 and external power supplies. This assessment  
22 shall include estimates of the significance of po-  
23 tential energy savings from technical improve-  
24 ments to these products and suggested product  
25 classes for standards. Prior to the end of this  
26 time period, the Secretary shall hold a scoping

1 workshop to discuss and receive comments on  
2 plans for developing energy conservation stand-  
3 ards for standby mode energy use for these  
4 products.

5 “(B) The Secretary shall, within 3 years  
6 after the date of enactment of this subsection,  
7 issue a final rule that determines whether en-  
8 ergy conservation standards shall be promul-  
9 gated for battery chargers and external power  
10 supplies or classes thereof. For each product  
11 class, any such standards shall be set at the  
12 lowest level of standby energy use that—

13 (i) meets the criteria of subsections  
14 (o), (p), (q), (r), (s) and (t); and

15 (ii) will result in significant overall  
16 annual energy savings, considering both  
17 standby mode and other operating modes.

18 “(2) DESIGNATION OF ADDITIONAL COVERED  
19 PRODUCTS.—

20 “(A) Not later than 180 days after the  
21 date of enactment of this subsection, the Sec-  
22 retary shall publish for public comment and  
23 public hearing a notice to determine whether  
24 any noncovered products should be designated  
25 as covered products for the purpose of insti-



1           tuting a rulemaking under this section to deter-  
2           mine whether an energy conservation standard  
3           restricting standby mode energy consumption,  
4           should be promulgated; providing that any re-  
5           striction on standby mode energy consumption  
6           shall be limited to major sources of such con-  
7           sumption.

8           “(B) In making the determinations pursu-  
9           ant to subparagraph (A) of whether to des-  
10          ignate new covered products and institute  
11          rulemakings, the Secretary shall, among other  
12          relevant factors and in addition to the criteria  
13          in section 322(b), consider—

14                   “(i) standby mode power consumption  
15                   compared to overall product energy con-  
16                   sumption; and

17                   “(ii) the priority and energy savings  
18                   potential of standards which may be pro-  
19                   mulgated under this subsection compared  
20                   to other required rulemakings under this  
21                   section and the available resources of the  
22                   Department to conduct such rulemakings.

23          “(C) Not later than one year after the date  
24          of enactment of this subsection, the Secretary  
25          shall issue a determination of any new covered

1 products for which he intends to institute  
2 rulemakings on standby mode pursuant to this  
3 section and he shall state the dates by which he  
4 intends to initiate those rulemakings.

5 “(3) REVIEW OF STANDBY ENERGY USE IN  
6 COVERED PRODUCTS.—In determining pursuant to  
7 section 323 whether test procedures and energy con-  
8 servation standards pursuant to section 325 should  
9 be revised, the Secretary shall consider for covered  
10 products which are major sources of standby mode  
11 energy consumption whether to incorporate standby  
12 mode into such test procedures and energy conserva-  
13 tion standards, taking into account, among other  
14 relevant factors, the criteria for non-covered prod-  
15 ucts in subparagraph (B) of this subsection.

16 “(4) RULEMAKING FOR STANDBY MODE.—

17 “(A) Any rulemaking instituted under this  
18 subsection or for covered products under this  
19 section which restricts standby mode power con-  
20 sumption shall be subject to the criteria and  
21 procedures for issuing energy conservation  
22 standards set forth in section 325 and the cri-  
23 teria set forth in paragraph 2(B) of this sub-  
24 section.

1           “(B) No standard can be proposed for new  
2 covered products or covered products in a  
3 standby mode unless the Secretary has promul-  
4 gated applicable test procedures for each prod-  
5 uct pursuant to section 323.

6           “(C) The provisions of section 327 shall  
7 apply to new covered products which are subject  
8 to the rulemakings for standby mode after a  
9 final rule has been issued.

10          “(5) EFFECTIVE DATE.—Any standard promul-  
11 gated under this subsection shall be applicable to  
12 products manufactured or imported three years after  
13 the date of promulgation.

14          “(6) VOLUNTARY PROGRAMS TO REDUCE  
15 STANDBY MODE ENERGY USE.—The Secretary and  
16 the Administrator shall collaborate and develop pro-  
17 grams, including programs pursuant to section 324A  
18 and other voluntary industry agreements or codes of  
19 conduct, which are designed to reduce standby mode  
20 energy use.

21          “(v) SUSPENDED CEILING FANS, VENDING MA-  
22 CHINES, UNIT HEATERS, AND COMMERCIAL REFRIG-  
23 ERATORS, FREEZERS AND REFRIGERATOR-FREEZERS.—  
24 The Secretary shall within 24 months after the date on  
25 which testing requirements are prescribed by the Sec-

1 retary pursuant to section 323(f), prescribe, by rule, en-  
2 ergy conservation standards for suspended ceiling fans, re-  
3 frigerated bottled or canned beverage vending machines,  
4 unit heaters, and commercial refrigerators, freezers and  
5 refrigerator-freezers. In establishing standards under this  
6 subsection, the Secretary shall use the criteria and proce-  
7 dures contained in subsections (l) and (m). Any standard  
8 prescribed under this subsection shall apply to products  
9 manufactured 3 years after the date of publication of a  
10 final rule establishing such standard.

11       “(w) ILLUMINATED EXIT SIGNS.—Illuminated exit  
12 signs manufactured on or after January 1, 2005 shall  
13 meet the Energy Star Program performance requirements  
14 for illuminated exit signs prescribed by the Environmental  
15 Protection Agency as in effect on the date of enactment  
16 of this subsection.

17       “(x) TORCHIERES.—Torchieres manufactured on or  
18 after January 1, 2005—

19               “(1) shall consume not more than 190 watts of  
20 power; and

21               “(2) shall not be capable of operating with  
22 lamps that total more than 190 watts.

23       “(y) LOW VOLTAGE DRY-TYPE TRANSFORMERS.—  
24 The efficiency of low voltage dry-type transformers manu-  
25 factured on or after January 1, 2005 shall be the Class

1 I Efficiency Levels for low voltage dry-type transformers  
2 specified in Table 4–2 of the ‘Guide for Determining En-  
3 ergy Efficiency for Distribution Transformers’ published  
4 by the National Electrical Manufacturers Association  
5 (NEMA TP–1–1996).”.

6 **SEC. 929. CONSUMER EDUCATION ON ENERGY EFFICIENCY**  
7 **BENEFITS OF AIR CONDITIONING, HEATING,**  
8 **AND VENTILATION MAINTENANCE.**

9 Section 337 of the Energy Policy and Conservation  
10 Act (42 U.S.C. 6307) is amended by adding at the end  
11 the following:

12 “(c) HVAC MAINTENANCE.—(1) For the purpose of  
13 ensuring that installed air conditioning and heating sys-  
14 tems operate at their maximum rated efficiency levels, the  
15 Secretary shall, within 180 days of the date of enactment  
16 of this subsection, carry out a program to educate home-  
17 owners and small business owners concerning the energy  
18 savings resulting from properly conducted maintenance of  
19 air conditioning, heating, and ventilating systems.

20 “(2) The Secretary may carry out the program in co-  
21 operation with industry trade associations, industry mem-  
22 bers, and energy efficiency organizations.”.



1           (3) by inserting before the period at the end the  
2 following: “; and except that each percentage limita-  
3 tion under this paragraph on the amount of assist-  
4 ance provided under this title that may be used for  
5 the provision of public services is hereby increased  
6 by 10 percent, but such percentage increase may be  
7 used only for the provision of public services con-  
8 cerning energy conservation or efficiency”.

9 **SEC. 933. FHA MORTGAGE INSURANCE INCENTIVES FOR**  
10 **ENERGY EFFICIENT HOUSING.**

11       (a) SINGLE FAMILY HOUSING MORTGAGE INSUR-  
12 ANCE.—Section 203(b)(2) of the National Housing Act  
13 (12 U.S.C. 1709(b)(2)) is amended, in the first undesig-  
14 nated paragraph beginning after subparagraph (B)(iii)  
15 (relating to solar energy systems)—

16           (1) by inserting “or paragraph (10)”; and

17           (2) by striking “20 percent” and inserting “30  
18 percent”.

19       (b) MULTIFAMILY HOUSING MORTGAGE INSUR-  
20 ANCE.—Section 207(c) of the National Housing Act (12  
21 U.S.C. 1713(c)) is amended, in the second undesignated  
22 paragraph beginning after paragraph (3) (relating to solar  
23 energy systems and residential energy conservation meas-  
24 ures), by striking “20 percent” and inserting “30 per-  
25 cent”.

1 (c) COOPERATIVE HOUSING MORTGAGE INSUR-  
2 ANCE.—Section 213(p) of the National Housing Act (12  
3 U.S.C. 1715e(p)) is amended by striking “20 per centum”  
4 and inserting “30 percent”.

5 (d) REHABILITATION AND NEIGHBORHOOD CON-  
6 SERVATION HOUSING MORTGAGE INSURANCE.—Section  
7 220(d)(3)(B)(iii) of the National Housing Act (12 U.S.C.  
8 1715k(d)(3)(B)(iii)) is amended by striking “20 per cen-  
9 tum” and inserting “30 percent”.

10 (e) LOW-INCOME MULTIFAMILY HOUSING MORT-  
11 GAGE INSURANCE.—Section 221(k) of the National Hous-  
12 ing Act (12 U.S.C. 1715l(k)) is amended by striking “20  
13 per centum” and inserting “30 percent”.

14 (f) ELDERLY HOUSING MORTGAGE INSURANCE.—  
15 The proviso at the end of section 213(c)(2) of the National  
16 Housing Act (12 U.S.C. 1715v(c)(2)) is amended by strik-  
17 ing “20 per centum” and inserting “30 percent”.

18 (g) CONDOMINIUM HOUSING MORTGAGE INSUR-  
19 ANCE.—Section 234(j) of the National Housing Act (12  
20 U.S.C. 1715y(j)) is amended by striking “20 per centum”  
21 and inserting “30 percent”.

22 **SEC. 934. PUBLIC HOUSING CAPITAL FUND.**

23 Section 9(d)(1) of the United States Housing Act of  
24 1937 (42 U.S.C. 1437g(d)(1)) is amended—



1 (1) in subparagraph (I), by striking “and” at  
2 the end;

3 (2) in subparagraph (K), by striking the period  
4 at the end and inserting “; and”; and

5 (3) by adding at the end the following new sub-  
6 paragraph:

7 “(L) improvement of energy and water-use  
8 efficiency by installing fixtures and fittings that  
9 conform to the American Society of Mechanical  
10 Engineers/American National Standards Insti-  
11 tute standards A112.19.2–1998 and  
12 A112.18.1–2000, or any revision thereto, appli-  
13 cable at the time of installation, and by increas-  
14 ing energy efficiency and water conservation by  
15 such other means as the Secretary determines  
16 are appropriate.”.

17 **SEC. 935. GRANTS FOR ENERGY-CONSERVING IMPROVE-**  
18 **MENTS FOR ASSISTED HOUSING.**

19 Section 251(b)(1) of the National Energy Conserva-  
20 tion Policy Act (42 U.S.C. 8231(1)) is amended—

21 (1) by striking “financed with loans” and in-  
22 sserting “assisted”;

23 (2) by inserting after “1959,” the following:  
24 “which are eligible multifamily housing projects (as  
25 such term is defined in section 512 of the Multi-

1 family Assisted Housing Reform and Affordability  
2 Act of 1997 (42 U.S.C. 1437f note) and are subject  
3 to a mortgage restructuring and rental assistance  
4 sufficiency plans under such Act,”; and

5 (3) by inserting after the period at the end of  
6 the first sentence the following new sentence: “Such  
7 improvements may also include the installation of  
8 energy and water conserving fixtures and fittings  
9 that conform to the American Society of Mechanical  
10 Engineers/American National Standards Institute  
11 standards A112.19.2–1998 and A112.18.1–2000, or  
12 any revision thereto, applicable at the time of instal-  
13 lation.”.

14 **SEC. 936. NORTH AMERICAN DEVELOPMENT BANK.**

15 Part 2 of subtitle D of title V of the North American  
16 Free Trade Agreement Implementation Act (22 U.S.C.  
17 290m–290m–3) is amended by adding at the end the fol-  
18 lowing:

19 **“SEC. 545. SUPPORT FOR CERTAIN ENERGY POLICIES.**

20 “Consistent with the focus of the Bank’s Charter on  
21 environmental infrastructure projects, the Board members  
22 representing the United States should use their voice and  
23 vote to encourage the Bank to finance projects related to  
24 clean and efficient energy, including energy conservation,

1 that prevent, control, or reduce environmental pollutants  
2 or contaminants.”.

3 **DIVISION D—INTEGRATION OF**  
4 **ENERGY POLICY AND CLI-**  
5 **MATE CHANGE POLICY TITLE**  
6 **X—CLIMATE CHANGE POLICY**  
7 **FORMULATION**

8 **Subtitle A—Global Warming**

9 **SEC. 1001. SENSE OF CONGRESS ON GLOBAL WARMING.**

10 (a) FINDINGS. The Congress makes the following  
11 findings:

12 (1) Evidence continues to build that increases  
13 in atmospheric concentrations of man-made green-  
14 house gases are contributing to global climate  
15 change.

16 (2) The Intergovernmental Panel on Climate  
17 Change (IPCC) has concluded that “there is new  
18 and stronger evidence that most of the warming ob-  
19 served over the last 50 years is attributable to  
20 human activities” and that the Earth’s average tem-  
21 perature can be expected to rise between 2.5 and  
22 10.4 degrees Fahrenheit in this century.

23 (3) The National Academy of Sciences con-  
24 firmed the findings of the IPCC, stating that “the  
25 IPCC’s conclusion that most of the observed warm-

1 ing of the last 50 years is likely to have been due  
2 to the increase of greenhouse gas concentrations ac-  
3 curately reflects the current thinking of the scientific  
4 community on this issue” and that “there is general  
5 agreement that the observed warming is real and  
6 particularly strong within the past twenty years”.

7 (4) The IPCC has stated that in the last 40  
8 years, the global average sea level has risen, ocean  
9 heat content has increased, and snow cover and ice  
10 extent have decreased, which threatens to inundate  
11 low-lying island nations and coastal regions through-  
12 out the world.

13 (5) The Environmental Protection Agency has  
14 found that global warming may harm the United  
15 States by altering crop yields, accelerating sea level  
16 rise, and increasing the spread of tropical infectious  
17 diseases.

18 (6) In 1992, the United States ratified the  
19 United Nations Framework Convention of Climate  
20 Change, done at New York on May 9, 1992, the ul-  
21 timate objective of which is the “stabilization of  
22 greenhouse gas concentrations in the atmosphere at  
23 a level that would prevent dangerous anthropogenic  
24 interference with the climate system”, and which  
25 stated in part “the Parties to the Convention are to

1       implement policies with the aim of returning . . . to  
2       their 1990 levels anthropogenic emissions of carbon  
3       dioxide and other greenhouse gases.”

4               (7) There is a shared international responsi-  
5       bility to address this problem, as industrial nations  
6       are the largest historic and current emitters of  
7       greenhouse gases and developing nations’ emissions  
8       will significantly increase in the future.

9               (8) The United Nations Framework Convention  
10       on Climate Change further states that “developed  
11       country Parties should take the lead in combating  
12       climate change and the adverse effects thereof”, as  
13       these nations are the largest historic and current  
14       emitters of greenhouse gases.

15              (9) Senate Resolution 98 of July 1997, which  
16       expressed that developing nations, especially the  
17       largest emitters, must also be included in any fu-  
18       ture, binding climate change treaty and such a trea-  
19       ty must not result in serious harm to the United  
20       States economy, should not cause the United States  
21       to abandon its shared responsibility to help find a  
22       solution to the global climate change dilemma.

23              (10) American businesses need to know how  
24       governments worldwide will respond to the threat of  
25       global warming.

1           (11) The United States has benefitted and will  
2           continue to benefit from investments in the research,  
3           development and deployment of a range of clean en-  
4           ergy and efficiency technologies that can mitigate  
5           global warming and that can make the United  
6           States economy more productive, bolster energy se-  
7           curity, create jobs, and protect the environment.

8           (b) SENSE OF CONGRESS.—It is the sense of the  
9           United States Congress that the United States should  
10          demonstrate international leadership and responsibility in  
11          mitigating the health, environmental, and economic  
12          threats posed by global warming by:

13               (1) taking responsible action to ensure signifi-  
14               cant and meaningful reductions in emissions of  
15               greenhouse gases from all sectors;

16               (2) creating flexible international and domestic  
17               mechanisms, including joint implementation, tech-  
18               nology deployment, emissions trading and carbon se-  
19               questration projects that will reduce, avoid, and se-  
20               quester greenhouse gas emissions; and

21               (3) participating in international negotiations,  
22               including putting forth a proposal at the next meet-  
23               ing of the Conference of the Parties, with the objec-  
24               tive of securing United States' participation in a re-  
25               vised Kyoto Protocol or other future binding climate

1 change agreements in a manner that is consistent  
2 with the environmental objectives of the Framework  
3 Convention on Climate Change, that protects the  
4 economic interests of the United States, and recog-  
5 nizes the shared international responsibility for ad-  
6 dressing climate change, including developing coun-  
7 try participation.

8 **Subtitle B—Climate Change**  
9 **Strategy**

10 **SEC. 1011. SHORT TITLE.**

11 This title may be cited as the “Climate Change Strat-  
12 egy and Technology Innovation Act of 2002”.

13 **SEC. 1012. FINDINGS.**

14 Congress finds that—

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

18 (2) in 1992, the Senate ratified the United Na-  
19 tions Framework Convention on Climate Change,  
20 done at New York on May 9, 1992, the ultimate ob-  
21 jective of which is the “stabilization of greenhouse  
22 gas concentrations in the atmosphere at a level that  
23 would prevent dangerous anthropogenic interference  
24 with the climate system”;

1           (3) although science currently cannot determine  
2           precisely what atmospheric concentrations are “dan-  
3           gerous”, the current trajectory of greenhouse gas  
4           emissions will lead to a continued rise in greenhouse  
5           gas concentrations in the atmosphere, not stabiliza-  
6           tion;

7           (4) the remaining scientific uncertainties call  
8           for temperance of human actions, but not inaction;

9           (5) greenhouse gases are associated with a wide  
10          range of human activities, including energy produc-  
11          tion, transportation, agriculture, forestry, manufac-  
12          turing, buildings, and other activities;

13          (6) the economic consequences of poorly de-  
14          signed climate change response strategies, or of in-  
15          action, may cost the global economy trillions of dol-  
16          lars;

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

19          (8) stabilization of greenhouse gas concentra-  
20          tions in the atmosphere will require transformational  
21          change in the global energy system and other emit-  
22          ting sectors at an almost unimaginable level—a  
23          veritable industrial revolution is required;



1           (9) such a revolution can occur only if the revo-  
2           lution is preceded by research and development that  
3           leads to bold technological breakthroughs;

4           (10) over the decade preceding the date of en-  
5           actment of this Act—

6                   (A) energy research and development  
7           budgets in the public and private sectors have  
8           declined precipitously and have not been fo-  
9           cused on the climate change response challenge;  
10          and

11                   (B) the investments that have been made  
12          have not been guided by a comprehensive strat-  
13          egy;

14          (11) the negative trends in research and devel-  
15          opment funding described in paragraph (10) must  
16          be reversed with a focus on not only traditional en-  
17          ergy research and development, but also bolder,  
18          breakthrough research;

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

23                   (A) stabilization of greenhouse gas con-  
24          centrations in the atmosphere at a level that

1 would prevent dangerous anthropogenic inter-  
2 ference with the climate system; and

3 (B) a response strategy with 4 key ele-  
4 ments consisting of—

5 (i) definition of interim emission miti-  
6 gation levels, that, coupled with specific  
7 mitigation approaches and after taking  
8 into account actions by other nations (if  
9 any), would result in stabilization of green-  
10 house gas concentrations;

11 (ii) technology development,  
12 including—

13 (I) a national commitment to  
14 double energy research and develop-  
15 ment by the United States public and  
16 private sectors; and

17 (II) in carrying out such research  
18 and development, a national commit-  
19 ment to provide a high degree of em-  
20 phasis on bold, breakthrough tech-  
21 nologies that will make possible a pro-  
22 found transformation of the energy,  
23 transportation, industrial, agricul-  
24 tural, and building sectors of the  
25 United States;

1 (iii) climate adaptation research  
2 that—

3 (I) focuses on response actions  
4 necessary to adapt to climate change  
5 that may have already occurred;

6 (II) focuses on response actions  
7 necessary to adapt to climate change  
8 that may occur under any future cli-  
9 mate change scenario;

10 (iv) climate science research that—

11 (I) builds on the substantial sci-  
12 entific understanding of climate  
13 change that exists as of the date of  
14 enactment of this Act;

15 (II) focuses on resolving the re-  
16 maining scientific, technical, and eco-  
17 nomic uncertainties to aid in the de-  
18 velopment of sound response strate-  
19 gies; and

20 (13) inherent in each of the 4 key elements of  
21 the response strategy is consideration of the inter-  
22 national nature of the challenge, which will  
23 require—

24 (A) establishment of joint climate response  
25 strategies and joint research programs;

1 (B) assistance to developing countries and  
2 countries in transition for building technical  
3 and institutional capacities and incentives for  
4 addressing the challenge; and

5 (C) promotion of public awareness of the  
6 issue.

7 **SEC. 1013. PURPOSE.**

8 The purpose of this title is to implement the new ap-  
9 proach described in section 1012(12) by developing a na-  
10 tional focal point for climate change response through—

11 (1) the establishment of the National Office of  
12 Climate Change Response within the Executive Of-  
13 fice of the President to develop the United States  
14 Climate Change Response Strategy that—

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

17 (B) is supportive of and integrated in the  
18 overall energy, transportation, industrial, agri-  
19 cultural, forestry, and environmental policies of  
20 the United States;

21 (C) takes into account—

22 (i) the diversity of energy sources and  
23 technologies;

24 (ii) supply-side and demand-side solu-  
25 tions; and

1 (iii) national infrastructure, energy  
2 distribution, and transportation systems;

3 (D) provides for the inclusion and equi-  
4 table participation of Federal, State, tribal, and  
5 local government agencies, nongovernmental or-  
6 ganizations, academia, scientific bodies, indus-  
7 try, the public, and other interested parties;

8 (E) incorporates new models of Federal-  
9 State cooperation;

10 (F) defines a comprehensive energy tech-  
11 nology research and development program  
12 that—

13 (i) recognizes the important contribu-  
14 tions that research and development pro-  
15 grams in existence on the date of enact-  
16 ment of this title make toward addressing  
17 the climate change response challenge; and

18 (ii) includes an additional research  
19 and development agenda that focuses on  
20 the bold, breakthrough technologies that  
21 are critical to the long-term stabilization of  
22 greenhouse gas concentrations in the at-  
23 mosphere;

24 (G) includes consideration of other efforts  
25 to address critical environmental and health

1 concerns, including clean air, clean water, and  
2 responsible land use policies; and

3 (H) incorporates initiatives to promote the  
4 deployment of clean energy technologies devel-  
5 oped in the United States and abroad;

6 (2) the establishment of the Interagency Task  
7 Force, chaired by the Director of the White House  
8 Office, to serve as the primary mechanism through  
9 which the heads of Federal agencies work together  
10 to develop and implement the Strategy;

11 (3) the establishment of the Office of Climate  
12 Change Technology within the Department of  
13 Energy—

14 (A) to manage, as its primary responsi-  
15 bility, an innovative research and development  
16 program that focuses on the bold, breakthrough  
17 technologies that are critical to the long-term  
18 stabilization of greenhouse gas concentrations  
19 in the atmosphere; and

20 (B) to provide analytical support and data  
21 to the White House Office, other agencies, and  
22 the public;

23 (4) the establishment of an independent review  
24 board—

1 (A) to review the Strategy and annually  
2 assess United States and international progress  
3 toward the goal of stabilization of greenhouse  
4 gas concentrations in the atmosphere at a level  
5 that would prevent dangerous anthropogenic in-  
6 terference with the climate system; and

7 (B) to assess—

8 (i) the performance of each Federal  
9 agency that has responsibilities under the  
10 Strategy; and

11 (ii) the adequacy of the budget of  
12 each such Federal agency to fulfill the re-  
13 sponsibilities of the Federal agency under  
14 the Strategy; and

15 (5) the establishment of offices in, or the car-  
16 rying out of activities by, the Department of Agri-  
17 culture, the Department of Transportation, the De-  
18 partment of Commerce, the Environmental Protec-  
19 tion Agency, and other Federal agencies as nec-  
20 essary to carry out this title.

21 **SEC. 1014. DEFINITIONS.**

22 In this title:

23 (1) **CLIMATE-FRIENDLY TECHNOLOGY.**—The  
24 term “climate-friendly technology” means any en-  
25 ergy supply or end-use technology that, over the life

1 of the technology and compared to similar tech-  
2 nology in commercial use as of the date of enact-  
3 ment of this Act—

4 (A) results in reduced emissions of green-  
5 house gases;

6 (B) may substantially lower emissions of  
7 other pollutants; and

8 (C) may generate substantially smaller or  
9 less hazardous quantities of solid or liquid  
10 waste.

11 (2) DEPARTMENT.—The term “Department”  
12 means the Department of Energy.

13 (3) DEPARTMENT OFFICE.—The term “Depart-  
14 ment Office” means the Office of Climate Change  
15 Technology of the Department established by section  
16 1017(a).

17 (4) FEDERAL AGENCY.—The term “Federal  
18 agency” has the meaning given the term “agency”  
19 in section 551 of title 5, United States Code.

20 (5) GREENHOUSE GAS.—The term “greenhouse  
21 gas” means—

22 (A) an anthropogenic gaseous constituent  
23 of the atmosphere (including carbon dioxide,  
24 methane, nitrous oxide, chlorofluorocarbons,  
25 hydrofluorocarbons, perfluorocarbons, sulfur



1 hexafluoride, and tropospheric ozone) that ab-  
2 sorbs and re-emits infrared radiation and influ-  
3 ences climate; and

4 (B) an anthropogenic aerosol (such as  
5 black soot) that absorbs solar radiation and in-  
6 fluences climate.

7 (6) INTERAGENCY TASK FORCE.—The term  
8 “Interagency Task Force” means the United States  
9 Climate Change Response Interagency Task Force  
10 established under section 1016(d).

11 (7) KEY ELEMENT.—The term “key element”,  
12 with respect to the Strategy, means—

13 (A) definition of interim emission mitiga-  
14 tion levels, that, coupled with specific mitigation  
15 approaches and after taking into account ac-  
16 tions by other nations (if any), would result in  
17 stabilization of greenhouse gas concentrations;

18 (B) technology development, including—

19 (i) a national commitment to double  
20 energy research and development by the  
21 United States public and private sectors;  
22 and

23 (ii) in carrying out such research and  
24 development, a national commitment to  
25 provide a high degree of emphasis on bold,

1 breakthrough technologies that will make  
2 possible a profound transformation of the  
3 energy, transportation, industrial, agricul-  
4 tural, and building sectors of the United  
5 States;

6 (C) climate adaptation research that—

7 (i) focuses on response actions nec-  
8 essary to adapt to climate change that may  
9 have already occurred;

10 (ii) focuses on response actions nec-  
11 essary to adapt to climate change that may  
12 occur under any future climate change sce-  
13 nario; and

14 (D) climate science research that—

15 (i) builds on the substantial scientific  
16 understanding of climate change that ex-  
17 ists as of the date of enactment of this  
18 Act; and

19 (ii) focuses on resolving the remaining  
20 scientific, technical, and economic uncer-  
21 tainties to aid in the development of sound  
22 response strategies.

23 (8) QUALIFIED INDIVIDUAL.—

24 (A) IN GENERAL.—The term “qualified in-  
25 dividual” means an individual who has dem-

1           onstrated expertise and leadership skills to  
2           draw on other experts in diverse fields of knowl-  
3           edge that are relevant to addressing the climate  
4           change response challenge.

5           (B) FIELDS OF KNOWLEDGE.—The fields  
6           of knowledge referred to in subparagraph (A)  
7           are—

- 8                   (i) the science of primary and sec-  
9                   ondary climate change impacts;
- 10                   (ii) energy and environmental econom-  
11                   ics;
- 12                   (iii) technology transfer and diffusion;
- 13                   (iv) the social dimensions of climate  
14                   change;
- 15                   (v) climate change adaptation strate-  
16                   gies;
- 17                   (vi) fossil, nuclear, and renewable en-  
18                   ergy technology;
- 19                   (vii) energy efficiency and energy con-  
20                   servation;
- 21                   (viii) energy systems integration;
- 22                   (ix) engineered and terrestrial carbon  
23                   sequestration;
- 24                   (x) transportation, industrial, and  
25                   building sector concerns;

- 1 (xi) regulatory and market-based  
2 mechanisms for addressing climate change;  
3 (xii) risk and decision analysis;  
4 (xiii) strategic planning; and  
5 (xiv) the international implications of  
6 climate change response strategies.

7 (9) REVIEW BOARD.—The term “Review  
8 Board” means the United States Climate Change  
9 Response Strategy Review Board established by sec-  
10 tion 1019.

11 (10) SECRETARY.—The term “Secretary”  
12 means the Secretary of Energy.

13 (11) STABILIZATION OF GREENHOUSE GAS CON-  
14 CENTRATIONS.—The term “stabilization of green-  
15 house gas concentrations” means the stabilization of  
16 greenhouse gas concentrations in the atmosphere at  
17 a level that would prevent dangerous anthropogenic  
18 interference with the climate system, recognizing  
19 that such a level should be achieved within a time  
20 frame sufficient to allow ecosystems to adapt natu-  
21 rally to climate change, to ensure that food produc-  
22 tion is not threatened and to enable economic devel-  
23 opment to proceed in a sustainable manner, as con-  
24 templated by the United Nations Framework Con-



1 ated by the Intergovernmental Panel on Climate  
2 Change and those consistent with U.S. treaty com-  
3 mitments) that, after taking into account by actions  
4 other nations (if any), would culminate in the sta-  
5 bilization of greenhouse gas concentrations;

6 (5) consider the broad range of activities and  
7 actions that can be taken by United States entities  
8 to reduce, avoid, or sequester greenhouse gas emis-  
9 sions both within the United States and in other na-  
10 tions through the use of market mechanisms, which  
11 may include but not limited to mitigation activities,  
12 terrestrial sequestration, earning offsets through  
13 carbon capture or project-based activities, trading of  
14 emissions credits in domestic and international mar-  
15 kets, and the application of the resulting credits  
16 from any of the above within the United States;

17 (6) minimize any adverse short-term and long-  
18 term social, economic, national security, and envi-  
19 ronmental impacts, including ensuring that the  
20 strategy is developed in an economically and environ-  
21 mentally sound manner;

22 (7) incorporate mitigation approaches leading  
23 to the development and deployment of advanced  
24 technologies and practices that will reduce, avoid, or  
25 sequester greenhouse gas emissions;

1           (8) recognize that the climate change response  
2 strategy is intended to guide the nation’s effort to  
3 address climate change, but it shall not create a  
4 legal obligation on the part of any person or entity  
5 other than the duties of the Director of the White  
6 House Office and Interagency Task Force in the de-  
7 velopment of the strategy;

8           (9) be consistent with the goals of energy,  
9 transportation, industrial, agricultural, forestry, en-  
10 vironmental, economic, and other relevant policies of  
11 the United States;

12           (10) be consistent with the goals of energy,  
13 transportation, industrial, agricultural, forestry, en-  
14 vironmental, and other relevant policies of the  
15 United States;

16           (11) have a scope that considers the totality of  
17 United States public, private, and public-private sec-  
18 tor actions that bear on the long-term goal;

19           (12) be based on an evaluation of a wide range  
20 of approaches for achieving the long-term goal, in-  
21 cluding evaluation of—

22                   (A) a variety of cost-effective Federal and  
23 State policies, programs, standards, and incen-  
24 tives;

1 (B) policies that integrate and promote in-  
2 novative, market-based solutions in the United  
3 States and in foreign countries; and

4 (C) participation in other international in-  
5 stitutions, or in the support of international ac-  
6 tivities, that are established or conducted to fa-  
7 cilitate stabilization of greenhouse gas con-  
8 centrations;

9 (13) in the final recommendations of the Strat-  
10 egy, emphasize response strategies that achieve the  
11 long-term goal and provide specific recommendations  
12 concerning—

13 (A) measures determined to be appropriate  
14 for short-term implementation, giving pref-  
15 erence to cost-effective and technologically fea-  
16 sible measures that will—

17 (i) produce measurable net reductions  
18 in United States emissions that lead to-  
19 ward achievement of the long-term goal;  
20 and

21 (ii) minimize any adverse short-term  
22 and long-term economic, environmental,  
23 national security, and social impacts on the  
24 United States;



1 (B) the development of technologies that  
2 have the potential for long-term  
3 implementation—

4 (i) giving preference to technologies  
5 that have the potential to reduce signifi-  
6 cantly the overall cost of stabilization of  
7 greenhouse gas concentrations; and

8 (ii) considering a full range of energy  
9 sources, energy conversion and use tech-  
10 nologies, and efficiency options;

11 (C) such changes in institutional and tech-  
12 nology systems as are necessary to adapt to cli-  
13 mate change in the short-term and the long-  
14 term;

15 (D) such review, modification, and en-  
16 hancement of the scientific, technical, and eco-  
17 nomic research efforts of the United States,  
18 and improvements to the data resulting from  
19 research, as are appropriate to improve the ac-  
20 curacy of predictions concerning climate change  
21 and the economic and social costs and opportu-  
22 nities relating to climate change; and

23 (E) changes that should be made to  
24 project and grant evaluation criteria under  
25 other Federal research and development pro-

1           grams so that those criteria do not inhibit de-  
2           velopment of climate-friendly technologies;

3           (14) be developed in a manner that provides for  
4           meaningful participation by, and consultation  
5           among, Federal, State, tribal, and local government  
6           agencies, nongovernmental organizations, academia,  
7           scientific bodies, industry, the public, and other in-  
8           terested parties in accordance with subsections  
9           (b)(4)(C)(iv)(II) and (d)(3)(B)(iii) of section 1016;

10          (15) address how the United States should en-  
11          gage State, tribal, and local governments in devel-  
12          oping and carrying out a response to climate change;

13          (16) promote, to the maximum extent prac-  
14          ticable, public awareness, outreach, and information-  
15          sharing to further the understanding of the full  
16          range of climate change-related issues;

17          (17) provide a detailed explanation of how the  
18          measures recommended by the Strategy will ensure  
19          that they do not result in serious harm to the econ-  
20          omy of the United States;

21          (18) provide a detailed explanation of how the  
22          measures recommended by the Strategy will achieve  
23          the long-term goal of stabilization of greenhouse gas  
24          concentrations;

1           (19) include any recommendations for legisla-  
2           tive and administrative actions necessary to imple-  
3           ment the Strategy;

4           (20) serve as a framework for climate change  
5           response actions by all Federal agencies;

6           (21) recommend which Federal agencies are, or  
7           should be, responsible for the various aspects of im-  
8           plementation of the Strategy and any budgetary im-  
9           plications;

10          (22) address how the United States should en-  
11          gage foreign governments in developing an inter-  
12          national response to climate change; and

13          (23) be subject to review by an independent re-  
14          view board in accordance with section 1019.

15          (b) SUBMISSION TO CONGRESS.—Not later than 1  
16          year after the date of enactment of this title, the President  
17          shall submit to Congress the Strategy.

18          (c) UPDATING.—Not later than 2 years after the date  
19          of submission of the Strategy to Congress under sub-  
20          section (b), and at the end of each 2-year period there-  
21          after, the President shall submit to Congress an updated  
22          version of the Strategy.

23          (d) PROGRESS REPORTS.—Not later than 1 year  
24          after the date of submission of the Strategy to Congress  
25          under subsection (b), and at the end of each 1-year period

1 thereafter, the President shall submit to Congress a report  
2 that—

3 (1) describes the progress on implementation of  
4 the Strategy; and

5 (2) provides recommendations for improvement  
6 of the Strategy and the implementation of the Strat-  
7 egy.

8 (e) ALIGNMENT WITH ENERGY, TRANSPORTATION,  
9 INDUSTRIAL, AGRICULTURAL, FORESTRY, AND OTHER  
10 POLICIES.—The President, the Director of the White  
11 House Office, the Secretary, and the other members of  
12 the Interagency Task Force shall work together to align  
13 the actions carried out under the Strategy and actions as-  
14 sociated with the energy, transportation, industrial, agri-  
15 cultural, forestry, and other relevant policies of the United  
16 States so that the objectives of both the Strategy and the  
17 policies are met without compromising the climate change-  
18 related goals of the Strategy or the goals of the policies.

19 **SEC. 1016. NATIONAL OFFICE OF CLIMATE CHANGE RE-**  
20 **SPONSE OF THE EXECUTIVE OFFICE OF THE**  
21 **PRESIDENT.**

22 (a) ESTABLISHMENT.—

23 (1) IN GENERAL.—There is established, within  
24 the Executive Office of the President, the National  
25 Office of Climate Change Response.

1           (2) FOCUS.—The White House Office shall  
2           have the focus of achieving the long-term goal of  
3           stabilization of greenhouse gas concentrations while  
4           minimizing adverse short-term and long-term eco-  
5           nomic and social impacts.

6           (3) DUTIES.—Consistent with paragraph (2),  
7           the White House Office shall—

8                   (A) establish policies, objectives, and prior-  
9                   ities for the Strategy;

10                   (B) in accordance with subsection (d), es-  
11                   tablish the Interagency Task Force to serve as  
12                   the primary mechanism through which the  
13                   heads of Federal agencies shall assist the Direc-  
14                   tor of the White House Office in developing and  
15                   implementing the Strategy;

16                   (C) to the maximum extent practicable, en-  
17                   sure that the Strategy is based on objective,  
18                   quantitative analysis, drawing on the analytical  
19                   capabilities of Federal and State agencies, espe-  
20                   cially the Department Office;

21                   (D) advise the President concerning nec-  
22                   essary changes in organization, management,  
23                   budgeting, and personnel allocation of Federal  
24                   agencies involved in climate change response ac-  
25                   tivities; and

1           (E) advise the President and notify a Fed-  
2           eral agency if the policies and discretionary pro-  
3           grams of the agency are not well aligned with,  
4           or are not contributing effectively to, the long-  
5           term goal of stabilization of greenhouse gas  
6           concentrations.

7           (b) DIRECTOR OF THE WHITE HOUSE OFFICE.—

8           (1) IN GENERAL.—The White House Office  
9           shall be headed by a Director, who shall report di-  
10          rectly to the President.

11          (2) APPOINTMENT.—The Director of the White  
12          House Office shall be a qualified individual ap-  
13          pointed by the President, by and with the advice and  
14          consent of the Senate.

15          (3) DUTIES OF THE DIRECTOR OF THE WHITE  
16          HOUSE OFFICE.—

17                (A) STRATEGY.—In accordance with sec-  
18                tion 1015, the Director of the White House Of-  
19                fice shall coordinate the development and up-  
20                dating of the Strategy.

21                (B) INTERAGENCY TASK FORCE.—The Di-  
22                rector of the White House Office shall serve as  
23                Chairperson of the Interagency Task Force.

24                (C) ADVISORY DUTIES.—

1 (i) CLIMATE, ENERGY, TRANSPORTATION,  
2 TATION, INDUSTRIAL, AGRICULTURAL,  
3 BUILDING, FORESTRY, AND OTHER PROGRAMS.—The Director of the White House  
4 Office, using an integrated perspective considering the totality of actions in the  
5 United States, shall advise the President  
6 and the heads of Federal agencies on—  
7

8 (I) the extent to which United  
9 States energy, transportation, industrial,  
10 agricultural, forestry, building,  
11 and other relevant programs are capable of producing progress on the long-  
12 term goal of stabilization of greenhouse gas concentrations; and  
13

14 (II) the extent to which proposed  
15 or newly created energy, transportation, industrial, agricultural, forestry,  
16 building, and other relevant programs positively or negatively affect the ability of the United States to  
17 achieve the long-term goal of stabilization of greenhouse gas concentrations.  
18

19 (ii) TAX, TRADE, AND FOREIGN POLICIES.—The Director of the White House  
20  
21  
22  
23  
24  
25

1 Office, using an integrated perspective con-  
2 sidering the totality of actions in the  
3 United States, shall advise the President  
4 and the heads of Federal agencies on—

5 (I) the extent to which the  
6 United States tax policy, trade policy,  
7 and foreign policy are capable of pro-  
8 ducing progress on the long-term goal  
9 of stabilization of greenhouse gas con-  
10 centrations; and

11 (II) the extent to which proposed  
12 or newly created tax policy, trade pol-  
13 icy, and foreign policy positively or  
14 negatively affect the ability of the  
15 United States to achieve the long-  
16 term goal of stabilization of green-  
17 house gas concentrations.

18 (iii) INTERNATIONAL TREATIES.—The  
19 Secretary of State, acting in conjunction  
20 with the Interagency Task Force and using  
21 the analytical tools available to the White  
22 House Office, shall provide to the Director  
23 of the White House Office an opinion  
24 that—



1 (I) specifies, to the maximum ex-  
2 tent practicable, the economic and en-  
3 vironmental costs and benefits of any  
4 proposed international treaties or  
5 components of treaties that have an  
6 influence on greenhouse gas manage-  
7 ment; and

8 (II) assesses the extent to which  
9 the treaties advance the long-term  
10 goal of stabilization of greenhouse gas  
11 concentrations, while minimizing ad-  
12 verse short-term and long-term eco-  
13 nomic and social impacts and consid-  
14 ering other impacts.

15 (iv) CONSULTATION.—

16 (I) WITH MEMBERS OF INTER-  
17 AGENCY TASK FORCE.—To the extent  
18 practicable and appropriate, the Di-  
19 rector of the White House Office shall  
20 consult with all members of the Inter-  
21 agency Task Force and other inter-  
22 ested parties before providing advice  
23 to the President.

24 (II) WITH OTHER INTERESTED  
25 PARTIES.—The Director of the White

1 House Office shall establish a process  
2 for obtaining the meaningful partici-  
3 pation of Federal, State, tribal, and  
4 local government agencies, nongovern-  
5 mental organizations, academia, sci-  
6 entific bodies, industry, the public,  
7 and other interested parties in the  
8 formulation of advice to be provided  
9 to the President.

10 (D) PUBLIC EDUCATION, AWARENESS,  
11 OUTREACH, AND INFORMATION-SHARING.—The  
12 Director of the White House Office, to the max-  
13 imum extent practicable, shall promote public  
14 awareness, outreach, and information-sharing  
15 to further the understanding of the full range  
16 of climate change-related issues.

17 (4) ANNUAL REPORTS.—The Director of the  
18 White House Office, in consultation with the Inter-  
19 agency Task Force and other interested parties,  
20 shall prepare an annual report for submission by the  
21 President to Congress that—

22 (A) assesses progress in implementation of  
23 the Strategy;

24 (B) assesses progress, in the United States  
25 and in foreign countries, toward the long-term

1 goal of stabilization of greenhouse gas con-  
2 centrations;

3 (C) assesses progress toward meeting cli-  
4 mate change-related international obligations;

5 (D) makes recommendations for actions by  
6 the Federal Government designed to close any  
7 gap between progress-to-date and the measures  
8 that are necessary to achieve the long-term goal  
9 of stabilization of greenhouse gas concentra-  
10 tions; and

11 (E) addresses the totality of actions in the  
12 United States that relate to the 4 key elements.

13 (5) ANALYSIS.—During development of the  
14 Strategy, preparation of the annual reports sub-  
15 mitted under paragraph (5), and provision of advice  
16 to the President and the heads of Federal agencies,  
17 the Director of the White House Office shall place  
18 significant emphasis on the use of objective, quan-  
19 titative analysis, taking into consideration any un-  
20 certainties associated with the analysis.

21 (c) STAFF.—

22 (1) IN GENERAL.—The Director of the White  
23 House Office shall employ a professional staff of not  
24 more than 25 individuals to carry out the duties of  
25 the White House Office.

1           (2) INTERGOVERNMENTAL PERSONNEL AND  
2 FELLOWSHIPS.—The Director of the White House  
3 Office may use the authority provided by the Inter-  
4 governmental Personnel Act of 1970 (42 U.S.C.  
5 4701 et seq.) and subchapter VI of chapter 33 of  
6 title 5, United States Code, and fellowships, to ob-  
7 tain staff from academia, scientific bodies, nonprofit  
8 organizations, and national laboratories, for appoint-  
9 ments of a limited term.

10 (d) INTERAGENCY TASK FORCE.—

11           (1) IN GENERAL.—The Director of the White  
12 House Office shall establish the United States Cli-  
13 mate Change Response Interagency Task Force.

14           (2) COMPOSITION.—The Interagency Task  
15 Force shall be composed of—

16                   (A) the Director of the White House Of-  
17 fice, who shall serve as Chairperson;

18                   (B) the Secretary of State;

19                   (C) the Secretary;

20                   (D) the Secretary of Commerce;

21                   (E) the Secretary of the Treasury;

22                   (F) the Secretary of Transportation;

23                   (G) the Secretary of Agriculture;

24                   (H) the Administrator of the Environ-  
25 mental Protection Agency;

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

3 (J) the United States Trade Representa-  
4 tive;

5 (K) the National Security Advisor;

6 (L) the Chairman of the Council of Eco-  
7 nomic Advisers;

8 (M) the Chairman of the Council on Envi-  
9 ronmental Quality;

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

12 (O) the Chairperson of the Subcommittee  
13 on Global Change Research (which performs  
14 the functions of the Committee on Earth and  
15 Environmental Sciences established by section  
16 102 of the Global Change Research Act of 1990  
17 (15 U.S.C. 2932)); and

18 (P) the heads of such other Federal agen-  
19 cies as the Chairperson determines should be  
20 members of the Interagency Task Force.

21 (3) STRATEGY.—

22 (A) IN GENERAL.—The Interagency Task  
23 Force shall serve as the primary forum through  
24 which the Federal agencies represented on the  
25 Interagency Task Force jointly—

1 (i) assist the Director of the White  
2 House Office in developing and updating  
3 the Strategy; and

4 (ii) assist the Director of the White  
5 House Office in preparing annual reports  
6 under subsection (b)(5).

7 (B) REQUIRED ELEMENTS.—In carrying  
8 out subparagraph (A), the Interagency Task  
9 Force shall—

10 (i) take into account the long-term  
11 goal and other requirements of the Strat-  
12 egy specified in section 1015(a);

13 (ii) consult with State, tribal, and  
14 local government agencies, nongovern-  
15 mental organizations, academia, scientific  
16 bodies, industry, the public, and other in-  
17 terested parties; and

18 (iii) build consensus around a Strat-  
19 egy that is based on strong scientific, tech-  
20 nical, and economic analyses.

21 (4) WORKING GROUPS.—The Chairperson of  
22 the Interagency Task Force may establish such top-  
23 ical working groups as are necessary to carry out  
24 the duties of the Interagency Task Force.

1 (e) PROVISION OF SUPPORT STAFF.—In accordance  
2 with procedures established by the Chairperson of the  
3 Interagency Task Force, the Federal agencies represented  
4 on the Interagency Task Force shall provide staff from  
5 the agencies to support information, data collection, and  
6 analyses required by the Interagency Task Force.

7 (f) HEARINGS.—On request of the Chairperson, the  
8 Interagency Task Force may hold such hearings, meet and  
9 act at such times and places, take such testimony, and  
10 receive such evidence as the Interagency Task Force con-  
11 siders to be appropriate.

12 **SEC. 1017. TECHNOLOGY INNOVATION PROGRAM IMPLE-**  
13 **MENTED THROUGH THE OFFICE OF CLIMATE**  
14 **CHANGE TECHNOLOGY OF THE DEPARTMENT**  
15 **OF ENERGY.**

16 (a) ESTABLISHMENT OF OFFICE OF CLIMATE  
17 CHANGE TECHNOLOGY OF THE DEPARTMENT OF EN-  
18 ERGY.—

19 (1) IN GENERAL.—There is established, within  
20 the Department, the Office of Climate Change Tech-  
21 nology.

22 (2) DUTIES.—The Department Office shall—

23 (A) manage an energy technology research  
24 and development program that directly supports  
25 the Strategy by—

- 1 (i) focusing on high-risk, bold, break-  
2 through technologies that—
- 3 (I) have significant promise of  
4 contributing to the national climate  
5 change policy of long-term stabiliza-  
6 tion of greenhouse gas concentrations  
7 by—
- 8 (aa) mitigating the emis-  
9 sions of greenhouse gases;
- 10 (bb) removing and seques-  
11 tering greenhouse gases from  
12 emission streams; or
- 13 (cc) removing and seques-  
14 tering greenhouse gases from the  
15 atmosphere;
- 16 (II) are not being addressed sig-  
17 nificantly by other Federal programs;  
18 and
- 19 (III) would represent a substan-  
20 tial advance beyond technology avail-  
21 able on the date of enactment of this  
22 title;
- 23 (ii) forging fundamentally new re-  
24 search and development partnerships  
25 among various Department, other Federal,



1 and State programs, particularly between  
2 basic science and energy technology pro-  
3 grams, in cases in which such partnerships  
4 have significant potential to affect the abil-  
5 ity of the United States to achieve sta-  
6 bilization of greenhouse gas concentrations  
7 at the lowest possible cost;

8 (iii) forging international research and  
9 development partnerships that are in the  
10 interests of the United States and make  
11 progress on stabilization of greenhouse gas  
12 concentrations;

13 (iv) making available, through moni-  
14 toring, experimentation, and analysis, data  
15 that are essential to proving the technical  
16 and economic viability of technology cen-  
17 tral to addressing climate change; and

18 (v) transitioning research and develop-  
19 ment programs to other program offices of  
20 the Department once such a research and  
21 development program crosses the threshold  
22 of high-risk research and moves into the  
23 realm of more conventional technology de-  
24 velopment;

1 (B) prepare annual reports in accordance  
2 with subsection (b)(6);

3 (C) identify the total contribution of all  
4 Department programs to climate change re-  
5 sponse;

6 (D) provide substantial analytical support  
7 to the White House Office, particularly support  
8 in the development of the Strategy and associ-  
9 ated progress reporting; and

10 (E) advise the Secretary on climate  
11 change-related issues, including necessary  
12 changes in Department organization, manage-  
13 ment, budgeting, and personnel allocation in the  
14 programs involved in climate change response-  
15 related activities.

16 (b) DIRECTOR OF THE DEPARTMENT OFFICE.—

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

20 (2) APPOINTMENT.—The Director of the De-  
21 partment Office shall be an employee of the Federal  
22 Government who is a qualified individual appointed  
23 by the President.

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

1           (4) VACANCIES.—A vacancy in the position of  
2           the Director of the Department Office shall be filled  
3           in the same manner as the original appointment was  
4           made.

5           (5) DUTIES OF THE DIRECTOR OF THE DE-  
6           PARTMENT OFFICE.—

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

11          (B) STRATEGY.—The Director of the De-  
12          partment Office shall support development of  
13          the Strategy through the provision of staff and  
14          analytical support.

15          (C) INTERAGENCY TASK FORCE.—Through ac-  
16          tive participation in the Interagency Task Force, the  
17          Director of the Department Office shall—

18                 (i) based on the analytical capabilities  
19                 of the Department Office, share analyses  
20                 of alternative climate change response  
21                 strategies with other members of the Inter-  
22                 agency Task Force to assist all members in  
23                 understanding—

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

1 (II) how the actions of the Fed-  
2 eral agencies of the members posi-  
3 tively or negatively contribute to cli-  
4 mate change solutions; and

5 (ii) determine how the energy tech-  
6 nology research and development program  
7 described in subsection (a)(2)(A) can be  
8 designed for maximum impact on the long-  
9 term goal of stabilization of greenhouse  
10 gas concentrations.

11 (D) TOOLS, DATA, AND CAPABILITIES.—  
12 The Director of the Department Office shall  
13 foster the development of tools, data, and capa-  
14 bilities to ensure that—

15 (i) the United States has a robust ca-  
16 pability for evaluating alternative climate  
17 change response scenarios; and

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

21 (E) ADVISORY DUTIES.—The Director of  
22 the Department Office shall advise the Sec-  
23 retary on all aspects of climate change re-  
24 sponse.

1           (6) ANNUAL REPORTS.—The Director of the  
2 Department Office shall prepare an annual report  
3 for submission by the Secretary to Congress and the  
4 White House Office that—

5           (A) assesses progress toward meeting the  
6 goals of the energy technology research and de-  
7 velopment program described in subsection  
8 (a)(2)(A);

9           (B) assesses the activities of the Depart-  
10 ment Office;

11           (C) assesses the contributions of all energy  
12 technology research and development programs  
13 of the Department (including science programs)  
14 to the long-term goal and other requirements of  
15 the Strategy specified in section 1015(a); and

16           (D) makes recommendations for actions by  
17 the Department and other Federal agencies to  
18 address the components of technology develop-  
19 ment that are necessary to support the Strat-  
20 egy.

21           (7) ANALYSIS.—During development of the  
22 Strategy, annual reports submitted under paragraph  
23 (6), and advice to the Secretary, the Director of the  
24 Department Office shall place significant emphasis

1 on the use of objective, quantitative analysis, taking  
2 into consideration any associated uncertainties.

3 (c) STAFF.—The Director of the Department Office  
4 shall employ a professional staff of not more than 25 indi-  
5 viduals to carry out the duties of the Department Office.

6 (d) INTERGOVERNMENTAL PERSONNEL AND FEL-  
7 LOWSHIPS.—The Department Office may use the author-  
8 ity provided by the Intergovernmental Personnel Act of  
9 1970 (42 U.S.C. 4701 et seq.), subchapter VI of chapter  
10 33 of title 5, United States Code, and other Departmental  
11 personnel authorities, to obtain staff from academia, sci-  
12 entific bodies, nonprofit organizations, industry, and na-  
13 tional laboratories, for appointments of a limited term.

14 (e) RELATIONSHIP TO OTHER DEPARTMENT PRO-  
15 GRAMS.—Each project carried out by the Department Of-  
16 fice shall be—

17 (1) initiated only after consultation with 1 or  
18 more other appropriate program offices of the De-  
19 partment that support research and development in  
20 areas relating to the project;

21 (2) managed by the Department Office; and

22 (3) in the case of a project that reaches a suffi-  
23 cient level of maturity, with the concurrence of the  
24 Department Office and an appropriate office de-  
25 scribed in paragraph (1), transferred to the appro-

1        appropriate office, along with the funds necessary to con-  
2        tinue the project to the point at which non-Federal  
3        funding can provide substantial support for the  
4        project.

5        (f) ANALYSIS OF STRATEGIC CLIMATE CHANGE RE-  
6        SPONSE.—

7                (1) IN GENERAL.—

8                        (A) GOAL.—The Department Office shall  
9                        foster the development and application of ad-  
10                        vanced computational tools, data, and capabili-  
11                        ties that, together with the capabilities of other  
12                        federal agencies, support integrated assessment  
13                        of alternative climate change response scenarios  
14                        and implementation of the Strategy.

15                        (B) PARTICIPATION AND SUPPORT.—  
16                        Projects supported by the Department Office  
17                        may include participation of, and be supported  
18                        by, other Federal agencies that have a role in  
19                        the development, commercialization, or transfer  
20                        of energy, transportation, industrial, agricul-  
21                        tural, forestry, or other climate change-related  
22                        technology.

23                (2) PROGRAMS.—

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

1 (i) develop and maintain core analyt-  
2 ical competencies and complex, integrated  
3 computational modeling capabilities that,  
4 together with the capabilities of other Fed-  
5 eral agencies, are necessary to support the  
6 design and implementation of the Strategy;  
7 and

8 (ii) track United States and inter-  
9 national progress toward the long-term  
10 goal of stabilization of greenhouse gas con-  
11 centrations.

12 (B) INTERNATIONAL CARBON DIOXIDE SE-  
13 QUESTRATION MONITORING AND DATA PRO-  
14 GRAM.—In consultation with Federal, State,  
15 academic, scientific, private sector, nongovern-  
16 mental, tribal, and international carbon capture  
17 and sequestration technology programs, the De-  
18 partment Office shall design and carry out an  
19 international carbon dioxide sequestration moni-  
20 toring and data program to collect, analyze, and  
21 make available the technical and economic data  
22 to ascertain—

23 (i) whether engineered sequestration  
24 and terrestrial sequestration will be accept-



1           able technologies from regulatory, eco-  
2           nomic, and international perspectives;

3           (ii) whether carbon dioxide seques-  
4           tered in geological formations or ocean sys-  
5           tems is stable and has inconsequential  
6           leakage rates on a geologic time-scale; and

7           (iii) the extent to which forest, agri-  
8           cultural, and other terrestrial systems are  
9           suitable carbon sinks.

10       (3) AREAS OF EXPERTISE.—

11           (A) IN GENERAL.—The Department Office  
12           shall develop and maintain expertise in inte-  
13           grated assessment, modeling, and related capa-  
14           bilities necessary—

15           (i) to understand the relationship be-  
16           tween natural, agricultural, industrial, en-  
17           ergy, and economic systems;

18           (ii) to design effective research and  
19           development programs; and

20           (iii) to develop and implement the  
21           Strategy.

22           (B) TECHNOLOGY TRANSFER AND DIFFU-  
23           SION.—The expertise described in clause (i)  
24           shall include knowledge of technology transfer

1 and technology diffusion in United States mar-  
2 kets and foreign markets.

3 (4) DISSEMINATION OF INFORMATION.—The  
4 Department Office shall ensure, to the maximum ex-  
5 tent practicable, that technical and scientific knowl-  
6 edge relating to greenhouse gas emission reduction,  
7 avoidance, and sequestration is broadly disseminated  
8 through publications, fellowships, and training pro-  
9 grams.

10 (5) ASSESSMENTS.—In a manner consistent  
11 with the Strategy, the Department shall conduct as-  
12 sessments of deployment of climate-friendly tech-  
13 nology.

14 (6) USE OF PRIVATE SECTOR FUNDING.—

15 (A) IN GENERAL.—The Department Office  
16 shall create an operating model that allows for  
17 collaboration, division of effort, and cost shar-  
18 ing with industry on individual climate change  
19 response projects.

20 (B) REQUIREMENTS.—Although cost shar-  
21 ing in some cases may be appropriate, the De-  
22 partment Office shall focus on long-term high-  
23 risk research and development and should not  
24 make industrial partnerships or cost sharing a  
25 requirement, if such a requirement would bias

1 the activities of the Department Office toward  
2 incremental innovations.

3 (C) REEVALUATION ON TRANSITION.—At  
4 such time as any bold, breakthrough research  
5 and development program reaches a sufficient  
6 level of technological maturity such that the  
7 program is transitioned to a program office of  
8 the Department other than the Department Of-  
9 fice, the cost-sharing requirements and criteria  
10 applicable to the program should be reevalu-  
11 ated.

12 (D) PUBLICATION IN FEDERAL REG-  
13 ISTER.—Each cost-sharing agreement entered  
14 into under this subparagraph shall be published  
15 in the Federal Register.

16 **SEC. 1018. ADDITIONAL OFFICES AND ACTIVITIES.**

17 The Secretary of Agriculture, the Secretary of Trans-  
18 portation, the Secretary of Commerce, the Administrator  
19 of the Environmental Protection Agency, and the heads  
20 of other Federal agencies may establish such offices and  
21 carry out such activities, in addition to those established  
22 or authorized by this Act, as are necessary to carry out  
23 this Act.

1 **SEC. 1019. UNITED STATES CLIMATE CHANGE RESPONSE**  
2 **STRATEGY REVIEW BOARD.**

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

7 (b) **MEMBERSHIP.**—

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

15 (2) **NOMINATIONS.**—Not later than 60 days  
16 after the date of enactment of this Act, after taking  
17 into strong consideration the guidance and rec-  
18 ommendations of a broad range of scientific and  
19 technical societies that have the capability of recom-  
20 mending qualified individuals, the National Academy  
21 of Sciences shall nominate for appointment to the  
22 Review Board not fewer than 22 individuals who—

23 (A) are—

24 (i) qualified individuals; or

25 (ii) experts in a field of knowledge  
26 specified in section 1014(9)(B); and

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

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

6 (4) TERMS; VACANCIES.—

7 (A) TERMS.—

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

11 (ii) INITIAL TERMS.—

12 (I) COMMENCEMENT DATE.—The  
13 term of each member initially ap-  
14 pointed to the Review Board shall  
15 commence 120 days after the date of  
16 enactment of this title.

17 (II) TERMINATION DATE.—Of  
18 the 11 members initially appointed to  
19 the Review Board, 5 members shall be  
20 appointed for a term of 2 years and 6  
21 members shall be appointed for a  
22 term of 4 years, to be designated by  
23 the President at the time of appoint-  
24 ment.

25 (B) VACANCIES.—

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

4 (ii) NOMINATIONS BY THE NATIONAL  
5 ACADEMY OF SCIENCES.—Not later than  
6 60 days after the date on which a vacancy  
7 commences, the National Academy of  
8 Sciences shall—

9 (I) after taking into strong con-  
10 sideration the guidance and rec-  
11 ommendations of a broad range of sci-  
12 entific and technical societies that  
13 have the capability of recommending  
14 qualified individuals, nominate, from  
15 among qualified individuals, not fewer  
16 than 2 individuals to fill the vacancy;  
17 and

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

20 (iii) SELECTION.—Not later than 30  
21 days after the date on which the nomina-  
22 tions under clause (ii) are submitted to the  
23 President, the President shall select from  
24 among the nominees an individual to fill  
25 the vacancy.

1 (iv) SENATE CONFIRMATION.—An in-  
2 dividual appointed to fill a vacancy on the  
3 Review Board shall be appointed by and  
4 with the advice and consent of the Senate.

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

9 (6) CHAIRPERSON; VICE CHAIRPERSON.—The  
10 members of the Review Board shall select a Chair-  
11 person and a Vice Chairperson of the Review Board  
12 from among the members of the Review Board.

13 (c) DUTIES.—

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

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

1 (A) the adequacy of effort and the appro-  
2 priateness of focus of the totality of all public,  
3 private, and public-private sector actions of the  
4 United States with respect to the 4 key ele-  
5 ments;

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

13 (C) the funding implications of any rec-  
14 ommendations made by the Review Board; and

15 (D)(i) the effectiveness with which each  
16 Federal agency is carrying out the responsibil-  
17 ities of the Federal agency with respect to the  
18 short-term and long-term greenhouse gas man-  
19 agement goals; and

20 (ii) the adequacy of the budget of each  
21 such Federal agency to carry out those respon-  
22 sibilities.

23 (3) ADDITIONAL RECOMMENDATIONS.—

24 (A) IN GENERAL.—Subject to subpara-  
25 graph (B), the Review Board, at the request of



1 the President or Congress, may provide rec-  
2 ommendations on additional climate change-re-  
3 lated topics.

4 (B) SECONDARY DUTY.— The provision of  
5 recommendations under subparagraph (A) shall  
6 be a secondary duty to the primary duty of the  
7 Review Board of providing independent review  
8 of the Strategy and the reports under para-  
9 graphs (1) and (2).

10 (d) POWERS.—

11 (1) HEARINGS.—

12 (A) IN GENERAL.—On request of the  
13 Chairperson or a majority of the members of  
14 the Review Board, the Review Board may hold  
15 such hearings, meet and act at such times and  
16 places, take such testimony, and receive such  
17 evidence as the Review Board considers to be  
18 appropriate.

19 (B) ADMINISTRATION OF OATHS.—Any  
20 member of the Review Board may administer  
21 an oath or affirmation to any witness that ap-  
22 pears before the Review Board.

23 (2) PRODUCTION OF DOCUMENTS.—

24 (A) IN GENERAL.—On request of the  
25 Chairperson or a majority of the members of

1 the Review Board, and subject to applicable  
2 law, the Secretary or head of a Federal agency  
3 represented on the Interagency Task Force, or  
4 a contractor of such an agency, shall provide  
5 the Review Board with such records, files, pa-  
6 pers, data, and information as are necessary to  
7 respond to any inquiry of the Review Board  
8 under this Act.

9 (B) INCLUSION OF WORK IN PROGRESS.—

10 Subject to applicable law, information obtain-  
11 able under subparagraph (A)—

12 (i) shall not be limited to final work  
13 products; but

14 (ii) shall include draft work products  
15 and documentation of work in progress.

16 (3) POSTAL SERVICES.—The Review Board  
17 may use the United States mails in the same man-  
18 ner and under the same conditions as other agencies  
19 of the Federal Government.

20 (e) COMPENSATION OF MEMBERS.—A member of the  
21 Review Board shall be compensated at a rate equal to the  
22 daily equivalent of the annual rate of basic pay prescribed  
23 for level IV of the Executive Schedule under section 5315  
24 of title 5, United States Code, for each day (including

1 travel time) during which the member is engaged in the  
2 performance of the duties of the Review Board.

3 (f) TRAVEL EXPENSES.—A member of the Review  
4 Board shall be allowed travel expenses, including per diem  
5 in lieu of subsistence, at rates authorized for an employee  
6 of an agency under subchapter I of chapter 57 of title  
7 5, United States Code, while away from the home or reg-  
8 ular place of business of the member in the performance  
9 of the duties of the Review Board.

10 (g) STAFF.—

11 (1) IN GENERAL.—The Chairperson of the Re-  
12 view Board may, without regard to the provisions of  
13 title 5, United States Code, regarding appointments  
14 in the competitive service, appoint and terminate an  
15 executive director and such other additional per-  
16 sonnel as are necessary to enable the Review Board  
17 to perform the duties of the Review Board.

18 (2) CONFIRMATION OF EXECUTIVE DIREC-  
19 TOR.—The employment of an executive director shall  
20 be subject to confirmation by the Review Board.

21 (3) COMPENSATION.—

22 (A) IN GENERAL.—Except as provided in  
23 subparagraph (B), the Chairperson of the Re-  
24 view Board may fix the compensation of the ex-  
25 ecutive director and other personnel without re-

1           gard to the provisions of chapter 51 and sub-  
2           chapter III of chapter 53 of title 5, United  
3           States Code, relating to classification of posi-  
4           tions and General Schedule pay rates.

5                   (B) MAXIMUM RATE OF PAY.—The rate of  
6           pay for the executive director and other per-  
7           sonnel shall not exceed the rate payable for  
8           level V of the Executive Schedule under section  
9           5316 of title 5, United States Code.

10           (h) PROCUREMENT OF TEMPORARY AND INTERMIT-  
11          TENT SERVICES.—The Chairperson of the Review Board  
12          may procure temporary and intermittent services in ac-  
13          cordance with section 3109(b) of title 5, United States  
14          Code, at rates for individuals that do not exceed the daily  
15          equivalent of the annual rate of basic pay prescribed for  
16          level V of the Executive Schedule under section 5316 of  
17          that title.

18          **SEC. 1020. AUTHORIZATION OF APPROPRIATIONS.**

19           (a) WHITE HOUSE OFFICE.—

20                   (1) USE OF AVAILABLE APPROPRIATIONS.—  
21          From funds made available to Federal agencies for  
22          the fiscal year in which this Title is enacted, the  
23          President shall provide such sums as are necessary  
24          to carry out the duties of the White House Office

1 under this title until the date on which funds are  
2 made available under paragraph (2).

3 (2) AUTHORIZATION OF APPROPRIATIONS.—

4 There is authorized to be appropriated to the White  
5 House Office to carry out the duties of the White  
6 House Office under this Title \$5,000,000 for each of  
7 fiscal years 2003 through 2011, to remain available  
8 through September 30, 2011.

9 (b) DEPARTMENT OFFICE.—

10 (1) USE OF AVAILABLE APPROPRIATIONS.—

11 From funds made available to Federal agencies for  
12 the fiscal year in which this title is enacted, the  
13 President shall provide such sums as are necessary  
14 to carry out the duties of the Department Office  
15 under this Title until the date on which funds are  
16 made available under paragraph (2).

17 (2) AUTHORIZATION OF APPROPRIATIONS.—

18 There is authorized to be appropriated to the De-  
19 partment Office to carry out the duties of the De-  
20 partment Office under this title \$4,750,000,000 for  
21 the period of fiscal years 2003 through 2011, to re-  
22 main available through September 30, 2011.

23 (c) REVIEW BOARD.—

24 (1) USE OF AVAILABLE APPROPRIATIONS.—

25 From funds made available to Federal agencies for

1 the fiscal year in which this title is enacted, the  
2 President shall provide such sums as are necessary  
3 to carry out the duties of the Review Board under  
4 this title until the date on which funds are made  
5 available under paragraph (2).

6 (2) AUTHORIZATION OF APPROPRIATIONS.—  
7 There is authorized to be appropriated to the Review  
8 Board to carry out the duties of the Review Board  
9 under this title \$3,000,000 for each of fiscal years  
10 2003 through 2011, to remain available until ex-  
11 pended.

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

15 (1) amounts made available to carry out the  
16 United States Global Change Research Program  
17 under the Global Change Research Act of 1990 (15  
18 U.S.C. 2921 et seq.); and

19 (2) amounts made available under other provi-  
20 sions of law for energy research and development.

1                   **Subtitle C—Science and**  
2                   **Technology Policy**

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

5           Section 101(b) of the National Science and Tech-  
6 nology Policy, Organization, and Priorities Act of 1976  
7 (42 U.S.C. 6601(b)) is amended—

8                   (1) by redesignating paragraphs (7) through  
9                   (13) as paragraphs (8) through (14), respectively;  
10                  and

11                  (2) by inserting after paragraph (6) the fol-  
12                  lowing:

13                         “(7) improving efforts to understand, assess,  
14                         predict, mitigate, and respond to global climate  
15                         change;”.

16 **SEC. 1032. ESTABLISHMENT OF ASSOCIATE DIRECTOR FOR**  
17                   **GLOBAL CLIMATE CHANGE.**

18           Section 203 of the National Science and Technology  
19 Policy, Organization, and Priorities Act of 1976 (42  
20 U.S.C. 6612) is amended—

21                   (1) by striking “four” in the second sentence  
22                   and inserting “five”; and

23                   (2) by striking “title.” in the second sentence  
24                   and inserting “title, one of whom shall be respon-  
25                   sible for global climate change science and tech-

1 nology under the Office of Science and Technology  
2 Policy.”.

3 **Subtitle D—Miscellaneous**  
4 **Provisions**

5 **SEC. 1041. ADDITIONAL INFORMATION FOR REGULATORY**  
6 **REVIEW.**

7 In each case that an agency prepares and submits  
8 a Statement of Energy Effects pursuant to Executive  
9 Order 13211 of May 18, 2001 (relating to actions con-  
10 cerning regulations that significantly affect energy supply,  
11 distribution, or use), or as part of compliance with Execu-  
12 tive Order 12866 of September 30, 1993 (relating to regu-  
13 latory planning and review) or its successor, the agency  
14 shall also submit an estimate of the change in net annual  
15 greenhouse gas emissions resulting from the proposed sig-  
16 nificant energy action. In the case in which there is an  
17 increase in net annual greenhouse gas emissions as a re-  
18 sult of the proposed significant energy action, the agency  
19 shall indicate what policies or measures will be undertaken  
20 to mitigate or offset the increased emissions.

21 **SEC. 1042. GREENHOUSE GAS EMISSIONS FROM FEDERAL**  
22 **FACILITIES.**

23 (a) **METHODOLOGY.**—

24 (1) **IN GENERAL.**—Not later than one year  
25 after the date of enactment of this section, the Sec-



1       retary of Energy, Secretary of Agriculture, Secretary  
2       of Commerce, and Administrator of the Environ-  
3       mental Protection Agency shall publish a jointly de-  
4       veloped methodology for preparing estimates of an-  
5       nual net greenhouse gas emissions from all Federally  
6       owned, leased, or operated facilities and emission  
7       sources, including mobile sources.

8               (2) INDIRECT AND OTHER EMISSIONS.—The  
9       methodology under paragraph (1) shall include emis-  
10      sions resulting from any Federal procurement action  
11      with an annual Federal expenditure of greater than  
12      \$100 million, indirect emissions associated with Fed-  
13      eral electricity consumption, and other emissions re-  
14      sulting from Federal actions that the heads of the  
15      agencies under paragraph (1) may jointly decide to  
16      include in the estimates.

17      (b) PUBLICATION.—Not later than 18 months after  
18      the date of enactment of this section, and annually there-  
19      after, the Secretary of Energy shall publish an estimate  
20      of annual net greenhouse gas emissions from all Federally  
21      owned, leased, or operated facilities and emission sources,  
22      using the methodology published under subsection (a).

1                   **TITLE XI—NATIONAL**  
2                   **GREENHOUSE GAS DATABASE**

3 **SEC. 1101. PURPOSE.**

4           The purpose of this title is to establish a greenhouse  
5 gas inventory, reductions registry, and information system  
6 that—

7                   (1) is complete, consistent, transparent, and ac-  
8 curate;

9                   (2) will create reliable and accurate data that  
10 can be used by public and private entities to design  
11 efficient and effective greenhouse gas emission re-  
12 duction strategies; and,

13                   (3) will encourage and acknowledge greenhouse  
14 gas emissions reductions.

15 **SEC. 1102. DEFINITIONS.**

16       In this title—

17                   (1) DATABASE.—The term “database” means  
18 the National Greenhouse Gas Database established  
19 under section 1104.

20                   (2) DESIGNATED AGENCY OR AGENCIES.—The  
21 term “Designated Agency or Agencies” means the  
22 Department or Departments and/or Agency or Agen-  
23 cies given the responsibility for a function or pro-  
24 gram under the Memorandum of Agreement entered  
25 into pursuant to Section 1103.

1           (3) DIRECT EMISSIONS.—The term “direct  
2 emissions” means greenhouse gas emissions by an  
3 entity from a facility that is owned or controlled by  
4 that entity.

5           (4) ENTITY.—The term “entity” means—

6                 (A) a person located in the United States;

7                 or

8                 (B) a public or private entity, to the extent  
9 that the entity operates in the United States.

10           (5) FACILITY.—The term “facility” means all  
11 buildings, structures, or installations located on any  
12 one or more of contiguous or adjacent property or  
13 properties, or a fleet of 20 or more transportation  
14 vehicles, under common control of the same entity.

15           (6) GREENHOUSE GAS.—The term “greenhouse  
16 gas” means—

17                 (A) carbon dioxide;

18                 (B) methane;

19                 (C) nitrous oxide;

20                 (D) hydrofluorocarbons;

21                 (E) perfluorocarbons; and

22                 (F) sulfur hexafluoride.

23           (7) INDIRECT EMISSIONS.—The term ‘indirect  
24 emissions’ means greenhouse gas emissions that are  
25 a consequence of the activities of an entity but that

1 are emitted from a facility owned or controlled by  
2 another entity and are not already reported as direct  
3 emissions by a covered entity.

4 (8) SEQUESTRATION.—The term ‘sequestration’  
5 means the capture, long-term separation, isolation,  
6 or removal of greenhouse gases from the atmos-  
7 phere, including through a biological or geologic  
8 method such as reforestation or an underground res-  
9 ervoir.

10 **SEC. 1103. ESTABLISHMENT OF MEMORANDUM OF AGREE-**  
11 **MENT.**

12 (a) Not later than one year after the date of enact-  
13 ment of this title, the President, acting through the Chair-  
14 man of the Council on Environmental Quality, shall direct  
15 the Department of Energy, the Department of Commerce,  
16 the Department of Agriculture, the Department of Trans-  
17 portation and the Environmental Protection Agency, to  
18 enter into a Memorandum of Agreement that will—

19 (1) recognize and maintain existing statutory  
20 and regulatory authorities, functions and programs  
21 that collect data on greenhouse gas emissions and  
22 effects and that are necessary for the operation of  
23 the National Greenhouse Gas Database;

24 (2) distribute additional responsibilities and ac-  
25 tivities identified by this title to Federal depart-

1       ments or agencies according to their mission and ex-  
2       pertise and to maximize the use of existing re-  
3       sources; and

4               (3) provide for the comprehensive collection and  
5       analysis of data on the emissions related to product  
6       use, including fossil fuel and energy consuming ap-  
7       pliances and vehicles.

8       (b) The Memorandum of Agreement entered into  
9       under subsection (a) shall, at a minimum, retain the fol-  
10      lowing functions for the respective Departments and agen-  
11      cies:

12             (1) The Department of Energy shall be pri-  
13      marily responsible for developing, maintaining, and  
14      verifying the emissions reduction registry, under  
15      both this title and its authority under section  
16      1605(b) of the Energy Policy Act of 1992 (42  
17      U.S.C. 13385(b)).

18             (2) The Department of Commerce shall be pri-  
19      marily responsible for the development of measure-  
20      ment standards for emissions monitoring and  
21      verification technologies and methods to ensure that  
22      there is a consistent and technically accurate record  
23      of emissions, reductions and atmospheric concentra-  
24      tions of greenhouse gases for the database under  
25      this title.

1           (3) The Environmental Protection Agency shall  
2           be primarily responsible for emissions monitoring,  
3           measurement, verification and data collection, pursu-  
4           ant to this title and existing authority under Titles  
5           IV and VIII of the Clean Air Act, and including mo-  
6           bile source emissions information from implementa-  
7           tion of the Corporate Average Fuel Economy pro-  
8           gram (49 U.S.C. Chapter 329), and the Agency's  
9           role in completing the national inventory for compli-  
10          ance with the United Nations Framework Conven-  
11          tion on Climate Change.

12          (c) The Chairman shall publish a draft version of the  
13          Memorandum of Agreement in the Federal Register and  
14          solicit comments on it as soon as practicable and publish  
15          the final Memorandum of Agreement in the Federal Reg-  
16          ister not later than 15 months after the date of enactment  
17          of this title.

18          (d) The final Memorandum of Agreement shall not  
19          be subject to judicial review.

20          **SEC. 1104. NATIONAL GREENHOUSE GAS DATABASE.**

21          (a) ESTABLISHMENT.—The Designated Agency or  
22          Agencies, working in consultation with the private sector  
23          and nongovernmental organizations, shall establish, oper-  
24          ate and maintain a database to be known as the National

1 Greenhouse Gas Database to collect, verify, and analyze  
2 information on—

3 (1) greenhouse gas emissions by entities located  
4 in the United States; and

5 (2) greenhouse gas emission reductions by enti-  
6 ties based in the United States.

7 (b) NATIONAL GREENHOUSE GAS DATABASE COM-  
8 PONENTS.—The database shall consist of an inventory of  
9 greenhouse gas emissions and a registry of greenhouse gas  
10 emissions reductions.

11 (c) DEADLINE.—Not later than 2 years after the date  
12 of enactment of this title, the Designated Agency or Agen-  
13 cies shall promulgate a rule to implement a comprehensive  
14 system for greenhouse gas emissions reporting,  
15 inventorying and reductions registration. The Designated  
16 Agency or Agencies shall ensure that the system is de-  
17 signed to maximize completeness, transparency, and accu-  
18 racy and to minimize measurement and reporting costs for  
19 covered entities.

20 (d) REQUIRED ELEMENTS OF DATABASE REPORTING  
21 SYSTEM.—

22 (1) MANDATORY REPORTING.—

23 (A) Beginning one year after promulgation  
24 of the final rule issued under subsection (c),  
25 each entity that exceeds the greenhouse gas

1 emissions threshold in paragraph (2) shall re-  
2 port annually to the Designated Agency or  
3 Agencies, for inclusion in the National Green-  
4 house Gas Database, the entity-wide emissions  
5 of greenhouse gases in the previous calendar  
6 year. Such reports are due annually to the Des-  
7 ignated Agency or Agencies, but must be sub-  
8 mitted no later than April 30 of each calendar  
9 year in support of the previous years' emission  
10 reporting requirements.

11 (B) Each report submitted shall include—

12 (i) direct emissions from stationary  
13 sources;

14 (ii) direct emissions from vehicles  
15 owned or controlled by a covered entity;

16 (iii) direct emissions from any land  
17 use activities that release significant quan-  
18 tities of greenhouse gases;

19 (iv) indirect emissions from all  
20 outsourced activities, contract manufac-  
21 turing, wastes transferred from the control  
22 of an entity, and other relevant instances,  
23 as determined to be practicable under the  
24 rule;



1 (v) indirect emissions from electricity,  
2 heat, and steam imported from another en-  
3 tity, as determined to be practicable under  
4 the rule;

5 (vi) the production, distribution or im-  
6 port of greenhouse gases listed under sec-  
7 tion 1102 by an entity; and

8 (vii) such other categories, which the  
9 designated Agency or Agencies determine  
10 by rule, after public notice and comment,  
11 should be included to accomplish the pur-  
12 poses of this title.

13 (C) Each report shall include total mass  
14 quantities for each greenhouse gas emitted, and  
15 in terms of carbon dioxide equivalent.

16 (D) Each report shall include the green-  
17 house gas emissions per unit of output by an  
18 entity, such as tons of carbon dioxide per kilo-  
19 watt-hour or a similar metric.

20 (E) The first report shall be required to be  
21 submitted not later than April 30 of the fourth  
22 year after the date of enactment of this title.

23 (2) THRESHOLD FOR REPORTING.—

24 (A) An entity shall not be required to  
25 make a report under paragraph (1) unless—

1 (i) the total greenhouse gas emissions  
2 of at least one facility owned by an entity  
3 in the calendar year for reporting exceeds  
4 10,000 metric tons of carbon dioxide equiv-  
5 alent, or a greater level as determined by  
6 rule; or

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

12 (B) The final rule promulgated under sec-  
13 tion 1104(c) and subsequent revisions to that  
14 rule with respect to the threshold for reporting  
15 in subparagraph (A) shall capture information  
16 on no less than 75 percent of anthropogenic  
17 greenhouse gas emissions from entities.

18 (3) METHOD OF REPORTING.—Entity-wide  
19 emissions shall be reported at the facility level.

20 (4) ADDITIONAL VOLUNTARY REPORTING.—An  
21 entity may voluntarily report to the Designated  
22 Agency or Agencies, for inclusion in the registry por-  
23 tion of the national database—

1 (A) with respect to the preceding calendar  
2 year and any greenhouse gas emitted by the  
3 entity—

4 (i) project reductions from facilities  
5 owned or controlled by the reporting entity  
6 in the United States;

7 (ii) transfers of project reductions to  
8 and from any other entity;

9 (iii) project reductions and transfers  
10 of project reductions outside the United  
11 States;

12 (iv) other indirect emissions that are  
13 not required to be reported undersub-  
14 section (d); and

15 (v) product use phase emissions; and

16 (B) with respect to greenhouse gas emis-  
17 sions reductions activities carried out since  
18 1990 and verified according to rules imple-  
19 menting subparagraphs (6) and (8) of this sub-  
20 section and submitted to the Designated Agency  
21 or Agencies before the date that is three years  
22 after the date of enactment of this title, those  
23 reductions that have been reported or submitted  
24 by an entity under section 1605(b) of the En-  
25 ergy Policy Act of 1992 (42 U.S.C. 13385(b))

1 or under other Federal or State voluntary  
2 greenhouse gas reduction programs.

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

7 (A) fuel switching;

8 (B) energy efficiency improvements;

9 (C) use of renewable energy;

10 (D) use of combined heat and power sys-  
11 tems;

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

14 (F) forestry activities that increase forest  
15 carbon stocks or reduce forest carbon missions;

16 (G) carbon capture and storage;

17 (H) methane recovery; and

18 (I) greenhouse gas offset investments.

19 (6) PROVISION OF VERIFICATION INFORMATION  
20 BY REPORTING ENTITIES.—Each reporting entity  
21 shall provide information sufficient for the Des-  
22 ignated Agency or Agencies to verify, in accordance  
23 with measurement and verification criteria developed  
24 under Section 1106, that the greenhouse gas report  
25 of the reporting entity—

1 (A) has been accurately reported; and

2 (B) in the case of each additional vol-  
3 untary report, represents—

4 (i) actual reductions in direct green-  
5 house gas emissions relative to historic  
6 emission levels and net of any increases in  
7 direct emissions and indirect emissions de-  
8 scribed in clauses (iv) and (v) of paragraph  
9 (1)(B), or

10 (ii) actual increases in net sequestra-  
11 tion.

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

14 (A) obtain independent third-party  
15 verification; and

16 (B) present the results of the third-party  
17 verification to the Designated Agency or Agen-  
18 cies for consideration by the Designated Agency  
19 or Agencies in carrying out paragraph (1).

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

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

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

3 (C) provide for adjustment to data by re-  
4 porting entities that have had a significant or-  
5 ganizational change (including mergers, acquisi-  
6 tions, and divestiture), in order to maintain  
7 comparability among data in the database over  
8 time;

9 (D) provide for adjustments to reflect new  
10 technologies or methods for measuring or calcu-  
11 lating greenhouse gas emissions; and

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

16 (9) AVAILABILITY OF DATA.—The Designated  
17 Agency or Agencies shall ensure that information in  
18 the database is published, accessible to the public,  
19 and made available in electronic format on the Inter-  
20 net, except in cases where the Designated Agency or  
21 Agencies determine that publishing or making avail-  
22 able the information would disclose information vital  
23 to national security.

24 (10) DATA INFRASTRUCTURE.—The Designated  
25 Agency or Agencies shall ensure that the database

1 established by this Act shall utilize and is integrated  
2 with existing Federal, regional, and state greenhouse  
3 gas data collection and reporting systems to the  
4 maximum extent possible and avoid duplication of  
5 such systems.

6 (11) ADDITIONAL ISSUES TO BE CONSID-  
7 ERED.—In promulgating the rules for and imple-  
8 menting the Database, the Designated Agency or  
9 Agencies shall consider a broad range of issues in-  
10 volved in establishing an effective database, includ-  
11 ing the following:

12 (A) UNITS FOR REPORTING.—The appro-  
13 priate units for reporting each greenhouse gas,  
14 and whether to require reporting of emission ef-  
15 ficiency rates (including emissions per kilowatt-  
16 hour for electricity generators) in addition to  
17 mass emissions of greenhouse gases,

18 (B) INTERNATIONAL CONSISTENCY.—The  
19 greenhouse gas reduction and sequestration  
20 methods and standards applied in other coun-  
21 tries, as applicable or relevant; and

22 (C) DATA SUFFICIENCY.—The extent to  
23 which available fossil fuels, greenhouse gas  
24 emissions, and greenhouse gas production and  
25 importation data are adequate to implement a

1 comprehensive National Greenhouse Gas Data-  
2 base.

3 (e) ENFORCEMENT.—The Attorney General may, at  
4 the request of the Designated Agency or Agencies, bring  
5 a civil action in United States District Court against an  
6 entity that fails to comply with reporting requirements  
7 under this section, to impose a civil penalty of not more  
8 than \$25,000 for each day that the failure to comply con-  
9 tinues.

10 (f) ANNUAL REPORT.—The Designated Agency or  
11 Agencies shall publish an annual report that—

12 (1) describes the total greenhouse gas emissions  
13 and emission reductions reported to the database;

14 (2) provides entity-by-entity and sector-by-sec-  
15 tor analyses of the emissions and emission reduc-  
16 tions reported; and

17 (3) describes the atmospheric concentrations of  
18 greenhouse gases and tracks such information over  
19 time.

20 **SEC. 1105. REPORT ON STATUTORY CHANGES AND HARMO-**  
21 **NIZATION.**

22 Not later than 3 years after the date of enactment  
23 of this title, the President shall submit to Congress a re-  
24 port identifying any changes needed to this title or to  
25 other provisions of law to improve the accuracy or oper-



1 ation of the Greenhouse Gas Database and related pro-  
2 grams under this title.

3 **SEC. 1106. MEASUREMENT AND VERIFICATION.**

4       The Designated Agency or Agencies shall, not later  
5 than 1 year after the date of enactment of this title, design  
6 and develop comprehensive measurement and verification  
7 methods and standards to ensure a consistent and tech-  
8 nically accurate record of greenhouse gas emissions, re-  
9 ductions, and atmospheric concentrations for use in the  
10 national greenhouse gas database. The Agency or Agen-  
11 cies shall periodically review and revise these methods and  
12 standards as necessary.

13 **SEC. 1107. INDEPENDENT REVIEW.**

14       (a) The General Accounting Office shall submit a re-  
15 port to Congress five years after the date of enactment  
16 of this title, and every three years thereafter, providing  
17 a review of the efficacy of the implementation and oper-  
18 ation of the National Greenhouse Gas Database estab-  
19 lished in section 1104 and making recommendations for  
20 improvements to the programs created pursuant to this  
21 title and changes to the law that will achieve a consistent  
22 and technically accurate record of greenhouse gas emis-  
23 sions, reductions, and atmospheric concentrations and the  
24 other purposes of this title.

1 (b) The Designated Agency or Agencies shall enter  
2 into an agreement with the National Academy of Sciences  
3 to review the scientific methods, assumptions and stand-  
4 ards used by the Agency or Agencies implementing this  
5 title, and to report to Congress not later than four years  
6 after the date of enactment of this title with recommenda-  
7 tions for improving those methods and standards or re-  
8 lated elements of the programs or structure of the report-  
9 ing and registry system established by this title.

10 **SEC. 1108. AUTHORIZATION OF APPROPRIATIONS.**

11 There is authorized to be appropriated such sums as  
12 are necessary to carry out the activities and programs in-  
13 cluded in this title.

14 **DIVISION E—ENHANCING RE-**  
15 **SEARCH, DEVELOPMENT, AND**  
16 **TRAINING**

17 **TITLE XII—ENERGY RESEARCH**  
18 **AND DEVELOPMENT PROGRAMS**

19 **SEC. 1201. SHORT TITLE.**

20 This division may be cited as the “Energy Science  
21 and Technology Enhancement Act of 2002”.

22 **SEC. 1202. FINDINGS.**

23 The Congress finds the following:

24 (1) A coherent national energy strategy re-  
25 quires an energy research and development program

1 that supports basic energy research and provides  
2 mechanisms to develop, demonstrate, and deploy new  
3 energy technologies in partnership with industry.

4 (2) An aggressive national energy research, de-  
5 velopment, demonstration, and technology deploy-  
6 ment program is an integral part of a national cli-  
7 mate change strategy, because it can reduce—

8 (A) United States energy intensity by 1.9  
9 percent per year from 1999 to 2020;

10 (B) United States energy consumption in  
11 2020 by 8 quadrillion Btu from otherwise ex-  
12 pected levels; and

13 (C) United States carbon dioxide emissions  
14 from expected levels by 166 million metric tons  
15 in carbon equivalent in 2020.

16 (3) An aggressive national energy research, de-  
17 velopment, demonstration, and technology deploy-  
18 ment program can help maintain domestic United  
19 States production of energy, increase United States  
20 hydrocarbon reserves by 14 percent, and lower nat-  
21 ural gas prices by 20 percent, compared to estimates  
22 for 2020.

23 (4) An aggressive national energy research, de-  
24 velopment, demonstration, and technology deploy-  
25 ment program is needed if United States suppliers

1 and manufacturers are to compete in future markets  
2 for advanced energy technologies.

3 **SEC. 1203. DEFINITIONS.**

4 In this title:

5 (1) DEPARTMENT.—The term “Department”  
6 means the Department of Energy.

7 (2) DEPARTMENTAL MISSION.—The term “de-  
8 partmental mission” means any of the functions  
9 vested in the Secretary of Energy by the Depart-  
10 ment of Energy Organization Act (42 U.S.C. 7101  
11 et seq.) or other law.

12 (3) INSTITUTION OF HIGHER EDUCATION.—The  
13 term “institution of higher education” has the  
14 meaning given that term in section 1201(a) of the  
15 Higher Education Act of 1965 (20 U.S.C. 1141(a));

16 (4) NATIONAL LABORATORY.—The term “Na-  
17 tional Laboratory” means any of the following multi-  
18 purpose laboratories owned by the Department of  
19 Energy—

20 (A) Argonne National Laboratory;

21 (B) Brookhaven National Laboratory;

22 (C) Idaho National Engineering and Envi-  
23 ronmental Laboratory;

24 (D) Lawrence Berkeley National Labora-  
25 tory;

- 1 (E) Lawrence Livermore National Labora-  
2 tory;  
3 (F) Los Alamos National Laboratory;  
4 (G) National Energy Technology Labora-  
5 tory;  
6 (H) National Renewable Energy Labora-  
7 tory;  
8 (I) Oak Ridge National Laboratory;  
9 (J) Pacific Northwest National Labora-  
10 tory; or  
11 (K) Sandia National Laboratory.

12 (5) SECRETARY.—The term “Secretary” means  
13 the Secretary of Energy.

14 (6) TECHNOLOGY DEPLOYMENT.—The term  
15 “technology deployment” means activities to pro-  
16 mote acceptance and utilization of technologies in  
17 commercial application, including activities under-  
18 taken pursuant to section 7 of the Federal Non-  
19 nuclear Energy Research and Development Act of  
20 1974 (42 U.S.C. 5906) or section 6 of the Renew-  
21 able Energy and Energy Efficiency Technology  
22 Competitiveness Act of 1989 (42 U.S.C. 12007).

23 **SEC. 1204. CONSTRUCTION WITH OTHER LAWS.**

24 Except as otherwise provided in this title and title  
25 XIV, the Secretary shall carry out the research, develop-

1 ment, demonstration, and technology deployment pro-  
2 grams authorized by this title in accordance with the  
3 Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), the  
4 Federal Nonnuclear Research and Development Act of  
5 1974 (42 U.S.C. 5901 et seq.), the Energy Policy Act of  
6 1992 (42 U.S.C. 13201 et seq.), or any other Act under  
7 which the Secretary is authorized to carry out such activi-  
8 ties.

## 9 **Subtitle A—Energy Efficiency**

### 10 **SEC. 1211. ENHANCED ENERGY EFFICIENCY RESEARCH** 11 **AND DEVELOPMENT.**

12 (a) PROGRAM DIRECTION.—The Secretary shall con-  
13 duct balanced energy research, development, demonstra-  
14 tion, and technology deployment programs to enhance en-  
15 ergy efficiency in buildings, industry, power technologies,  
16 and transportation.

17 (b) PROGRAM GOALS.—

18 (1) ENERGY-EFFICIENT HOUSING.—The goal of  
19 the energy-efficient housing program shall be to de-  
20 velop, in partnership with industry, enabling tech-  
21 nologies (including lighting technologies), designs,  
22 production methods, and supporting activities that  
23 will, by 2010—

24 (A) cut the energy use of new housing by  
25 50 percent, and

1           (B) reduce energy use in existing homes by  
2           30 percent.

3           (2) INDUSTRIAL ENERGY EFFICIENCY.—The  
4           goal of the industrial energy efficiency program shall  
5           be to develop, in partnership with industry, enabling  
6           technologies, designs, production methods, and sup-  
7           porting activities that will, by 2010, enable energy-  
8           intensive industries such as the following industries  
9           to reduce their energy intensity by at least 25  
10          percent—

11           (A) the wood product manufacturing in-  
12          dustry;

13           (B) the pulp and paper industry;

14           (C) the petroleum and coal products manu-  
15          facturing industry;

16           (D) the mining industry;

17           (E) the chemical manufacturing industry;

18           (F) the glass and glass product manufac-  
19          turing industry;

20           (G) the iron and steel mills and ferroalloy  
21          manufacturing industry;

22           (H) the primary aluminum production in-  
23          dustry;

24           (I) the foundries industry; and

25           (J) U.S. agriculture.

1           (3) TRANSPORTATION ENERGY EFFICIENCY.—

2           The goal of the transportation energy efficiency pro-  
3           gram shall be to develop, in partnership with indus-  
4           try, technologies that will enable the achievement—

5                   (A) by 2010, passenger automobiles with a  
6                   fuel economy of 80 miles per gallon;

7                   (B) by 2010, light trucks (classes 1 and  
8                   2a) with a fuel economy of 60 miles per gallon;

9                   (C) by 2010, medium trucks and buses  
10                  (classes 2b through 6 and class 8 transit buses)  
11                  with a fuel economy, in ton-miles per gallon,  
12                  that is three times that of year 2000 equivalent  
13                  vehicles;

14                  (D) by 2010, heavy trucks (classes 7 and  
15                  8) with a fuel economy, in ton-miles per gallon,  
16                  that is two times that of year 2000 equivalent  
17                  vehicles; and

18                  (E) by 2015, the production of fuel-cell  
19                  powered passenger vehicles with a fuel economy  
20                  of 110 miles per gallon.

21           (4) ENERGY EFFICIENT DISTRIBUTED GENERA-  
22           TION.—The goals of the energy efficient on-site gen-  
23           eration program shall be to help remove environ-  
24           mental and regulatory barriers to on-site, or distrib-



1       uted, generation and combined heat and power by  
2       developing technologies by 2015 that achieve—

3               (A) electricity generating efficiencies great-  
4               er than 40 percent for on-site generation tech-  
5               nologies based upon natural gas, including fuel  
6               cells, microturbines, reciprocating engines and  
7               industrial gas turbines;

8               (B) combined heat and power total (elec-  
9               tric and thermal) efficiencies of more than 85  
10              percent;

11              (C) fuel flexibility to include hydrogen,  
12              biofuels and natural gas;

13              (D) near zero emissions of pollutants that  
14              form smog and acid rain;

15              (E) reduction of carbon dioxide emissions  
16              by at least 40 percent;

17              (F) packaged system integration at end  
18              user facilities providing complete services in  
19              heating, cooling, electricity and air quality; and

20              (G) increased reliability for the consumer  
21              and greater stability for the national electricity  
22              grid.

23       (c) AUTHORIZATION OF APPROPRIATIONS.—There  
24       are authorized to be appropriated to the Secretary for car-

1 rying out research, development, demonstration, and tech-  
2 nology deployment activities under this subtitle—

- 3 (1) \$700,000,000 for fiscal year 2003;
- 4 (2) \$784,000,000 for fiscal year 2004;
- 5 (3) \$878,000,000 for fiscal year 2005; and
- 6 (4) \$983,000,000 for fiscal year 2006.

7 (d) **LIMITATION ON USE OF FUNDS.**—None of the  
8 funds authorized to be appropriated in subsection (c) may  
9 be used for the following programs of the Department—

- 10 (1) Weatherization Assistance Program;
- 11 (2) State Energy Program; or
- 12 (3) Federal Energy Management Program.

13 **SEC. 1212. ENERGY EFFICIENCY SCIENCE INITIATIVE.**

14 (a) **ESTABLISHMENT AND AUTHORIZATION OF AP-**  
15 **PROPRIATIONS.**—From amounts authorized under section  
16 1211(c), there are authorized to be appropriated not more  
17 than \$50,000,000 in any fiscal year, for an Energy Effi-  
18 ciency Science Initiative to be managed by the Assistant  
19 Secretary in the Department with responsibility for energy  
20 conservation under section 203(a)(9) of the Department  
21 of Energy Organization Act (42 U.S.C. 7133(a)(9)), in  
22 consultation with the Director of the Office of Science, for  
23 grants to be competitively awarded and subject to peer re-  
24 view for research relating to energy efficiency.

1 (b) REPORT.—The Secretary of Energy shall submit  
2 to the Committee on Science and the Committee on Ap-  
3 propriations of the United States House of Representa-  
4 tives, and to the Committee on Energy and Natural Re-  
5 sources and the Committee on Appropriations of the  
6 United States Senate, an annual report on the activities  
7 of the Energy Efficiency Science Initiative, including a de-  
8 scription of the process used to award the funds and an  
9 explanation of how the research relates to energy effi-  
10 ciency.

11 **SEC. 1213. NEXT GENERATION LIGHTING INITIATIVE.**

12 (a) ESTABLISHMENT.—There is established in the  
13 Department a Next Generation Lighting Initiative to re-  
14 search, develop, and conduct demonstration activities on  
15 advanced solid-state lighting technologies based on white  
16 light emitting diodes.

17 (b) OBJECTIVES.—

18 (1) IN GENERAL.—The objectives of the initia-  
19 tive shall be to develop, by 2011, advanced solid-  
20 state lighting technologies based on white light emit-  
21 ting diodes that, compared to incandescent and fluo-  
22 rescent lighting technologies, are—

23 (A) longer lasting;

24 (B) more energy-efficient; and

25 (C) cost-competitive.

1           (2) INORGANIC WHITE LIGHT EMITTING  
2           DIODE.—The objective of the initiative with respect  
3           to inorganic white light emitting diodes shall be to  
4           develop an inorganic white light emitting diode that  
5           has an efficiency of 160 lumens per watt and a 10-  
6           year lifetime.

7           (3) ORGANIC WHITE LIGHT EMITTING DIODE.—  
8           The objective of the initiative with respect to organic  
9           white light emitting diodes shall be to develop an or-  
10          ganic white light emitting diode with an efficiency of  
11          100 lumens per watt with a 5-year lifetime that—

12                   (A) illuminates over a full color spectrum;

13                   (B) covers large areas over flexible sur-  
14                   faces; and

15                   (C) does not contain harmful pollutants  
16                   typical of fluorescent lamps such as mercury.

17          (e) CONSORTIUM.—

18           (1) IN GENERAL.—The Secretary shall initiate  
19           and manage basic and manufacturing-related re-  
20           search on advanced solid-state lighting technologies  
21           based on white light emitting diodes for the initia-  
22           tive, in cooperation with the Next Generation Light-  
23           ing Initiative Consortium.

24           (2) COMPOSITION.—The consortium shall be  
25           composed of firms, national laboratories, and other

1 entities so that the consortium is representative of  
2 the United States solid state lighting research, devel-  
3 opment, and manufacturing expertise as a whole.

4 (3) FUNDING.—The consortium shall be funded  
5 by—

6 (A) participation fees; and

7 (B) grants provided under subsection  
8 (e)(1).

9 (4) ELIGIBILITY.—To be eligible to receive a  
10 grant under subsection (e)(1), the consortium  
11 shall—

12 (A) enter into a consortium participation  
13 agreement that—

14 (i) is agreed to by all participants;  
15 and

16 (ii) describes the responsibilities of  
17 participants, participation fees, and the  
18 scope of research activities; and

19 (B) develop an annual program plan.

20 (5) INTELLECTUAL PROPERTY.—Participants in  
21 the consortium shall have royalty-free nonexclusive  
22 rights to use intellectual property derived from con-  
23 sortium research conducted under subsection (e)(1).

24 (d) PLANNING BOARD.—

1           (1) IN GENERAL.—Not later than 90 days after  
2 the establishment of the consortium, the Secretary  
3 shall establish and appoint the members of a plan-  
4 ning board, to be known as the “Next Generation  
5 Lighting Initiative Planning Board”, to assist the  
6 Secretary in carrying out this section.

7           (2) COMPOSITION.—The planning board shall  
8 be composed of—

9                   (A) 4 members from universities, national  
10 laboratories, and other individuals with exper-  
11 tise in advanced solid-state lighting and tech-  
12 nologies based on white light emitting diodes;  
13 and

14                   (B) 3 members from a list of not less than  
15 6 nominees from industry submitted by the con-  
16 sortium.

17           (3) STUDY.—

18                   (A) IN GENERAL.—Not later than 90 days  
19 after the date on which the Secretary appoints  
20 members to the planning board, the planning  
21 board shall complete a study on strategies for  
22 the development and implementation of ad-  
23 vanced solid-state lighting technologies based on  
24 white light emitting diodes.

1           (B) REQUIREMENTS.—The study shall de-  
2           velop a comprehensive strategy to implement,  
3           through the initiative, the use of white light  
4           emitting diodes to increase energy efficiency  
5           and enhance United States competitiveness.

6           (C) IMPLEMENTATION.—As soon as prac-  
7           ticable after the study is submitted to the Sec-  
8           retary, the Secretary shall implement the initia-  
9           tive in accordance with the recommendations of  
10          the planning board.

11          (4) TERMINATION.—The planning board shall  
12          terminate upon completion of the study under para-  
13          graph (3).

14          (e) GRANTS.—

15               (1) FUNDAMENTAL RESEARCH.—The Secretary,  
16               through the consortium, shall make grants to con-  
17               duct basic and manufacturing-related research re-  
18               lated to advanced solid-state lighting technologies  
19               based on white light emitting diode technologies.

20               (2) TECHNOLOGY DEVELOPMENT AND DEM-  
21               ONSTRATION.—The Secretary shall enter into  
22               grants, contracts, and cooperative agreements to  
23               conduct or promote technology research, develop-  
24               ment, or demonstration activities. In providing fund-

1       ing under this paragraph, the Secretary shall give  
2       preference to participants in the consortium.

3           (3) CONTINUING ASSESSMENT.—The consor-  
4       tium, in collaboration with the Secretary, shall for-  
5       mulate annual operating and performance objectives,  
6       develop technology roadmaps, and recommend re-  
7       search and development priorities for the initiative.  
8       The Secretary may also establish or utilize advisory  
9       committees, or enter into appropriate arrangements  
10      with the National Academy of Sciences, to conduct  
11      periodic reviews of the initiative. The Secretary shall  
12      consider the results of such assessment and review  
13      activities in making funding decisions under para-  
14      graphs (1) and (2) of this subsection.

15          (4) TECHNICAL ASSISTANCE.—The National  
16      Laboratories shall cooperate with and provide tech-  
17      nical assistance to persons carrying out projects  
18      under the initiative.

19          (5) AUDITS.—

20            (A) IN GENERAL.—The Secretary shall re-  
21      tain an independent, commercial auditor to de-  
22      termine the extent to which funds made avail-  
23      able under this section have been expended in  
24      a manner that is consistent with the objectives  
25      under subsection (b) and, in the case of funds



1           made available to the consortium, the annual  
2           program plan of the consortium under sub-  
3           section (c)(4)(B).

4           (B) REPORTS.—The auditor shall submit  
5           to Congress, the Secretary, and the Comptroller  
6           General of the United States an annual report  
7           containing the results of the audit.

8           (6) APPLICABLE LAW.—Grants, contracts, and  
9           cooperative agreements under this section shall not  
10          be subject to the Federal Acquisition Regulation.

11          (f) PROTECTION OF INFORMATION.—Information ob-  
12          tained by the Federal Government on a confidential basis  
13          under this section shall be considered to constitute trade  
14          secrets and commercial or financial information obtained  
15          from a person and privileged or confidential under section  
16          552(b)(4) of title 5, United States Code.

17          (g) AUTHORIZATION OF APPROPRIATIONS.—In addi-  
18          tion to amounts authorized under section 1211(c), there  
19          are authorized to be appropriated for activities under this  
20          section \$50,000,000 for each of fiscal years 2003 through  
21          2011.

22          (h) DEFINITIONS.—In this section:

23                  (1) ADVANCED SOLID-STATE LIGHTING.—The  
24                  term “advanced solid-state lighting” means a  
25                  semiconducting device package and delivery system

1 that produces white light using externally applied  
2 voltage.

3 (2) CONSORTIUM.—The term “consortium”  
4 means the Next Generation Lighting Initiative Con-  
5 sortium under subsection (c).

6 (3) INITIATIVE.—The term “initiative” means  
7 the Next Generation Lighting Initiative established  
8 under subsection (a).

9 (4) INORGANIC WHITE LIGHT EMITTING  
10 DIODE.—The term “inorganic white light emitting  
11 diode” means an inorganic semiconducting package  
12 that produces white light using externally applied  
13 voltage.

14 (5) ORGANIC WHITE LIGHT EMITTING DIODE.—  
15 The term “organic white light emitting diode”  
16 means an organic semiconducting compound that  
17 produces white light using externally applied voltage.

18 (6) WHITE LIGHT EMITTING DIODE.—The term  
19 “white light emitting diode” means—

20 (A) an inorganic white light emitting  
21 diode; or

22 (B) an organic white light emitting diode.

23 **SEC. 1214. RAILROAD EFFICIENCY.**

24 (a) ESTABLISHMENT.—The Secretary shall, in co-  
25 operation with the Secretaries of Transportation and De-

1 fense, and the Administrator of the Environmental Protec-  
2 tion Agency, establish a public-private research partner-  
3 ship involving the federal government, railroad carriers,  
4 locomotive manufacturers, and the Association of Amer-  
5 ican Railroads. The goal of the initiative shall include de-  
6 veloping and demonstrating locomotive technologies that  
7 increase fuel economy, reduce emissions, improve safety,  
8 and lower costs.

9 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to carry out the require-  
11 ments of this section \$60,000,000 for fiscal year 2003 and  
12 \$70,000,000 for fiscal year 2004.

## 13 **Subtitle B—Renewable Energy**

### 14 **SEC. 1221. ENHANCED RENEWABLE ENERGY RESEARCH** 15 **AND DEVELOPMENT.**

16 (a) PROGRAM DIRECTION.—The Secretary shall con-  
17 duct balanced energy research, development, demonstra-  
18 tion, and technology deployment programs to enhance the  
19 use of renewable energy.

20 (b) PROGRAM GOALS.—

21 (1) WIND POWER.—The goals of the wind  
22 power program shall be to develop, in partnership  
23 with industry, a variety of advanced wind turbine  
24 designs and manufacturing technologies that are  
25 cost-competitive with fossil-fuel generated electricity,

1 with a focus on developing advanced low wind speed  
2 technologies that, by 2007, will enable the expanding  
3 utilization of widespread class 3 and 4 winds.

4 (2) PHOTOVOLTAICS.—The goal of the photo-  
5 voltaic program shall be to develop, in partnership  
6 with industry, total photovoltaic systems with in-  
7 stalled costs of \$4000 per peak kilowatt by 2005  
8 and \$2000 per peak kilowatt by 2015.

9 (3) SOLAR THERMAL ELECTRIC SYSTEMS.—The  
10 goal of the solar thermal electric systems program  
11 shall be to develop, in partnership with industry,  
12 solar power technologies (including baseload solar  
13 power) that are competitive with fossil-fuel gen-  
14 erated electricity by 2015, by combining high-effi-  
15 ciency and high-temperature receivers with advanced  
16 thermal storage and power cycles.

17 (4) BIOMASS-BASED POWER SYSTEMS.—The  
18 goal of the biomass program shall be to develop, in  
19 partnership with industry, integrated power-gener-  
20 ating systems, advanced conversion, and feedstock  
21 technologies capable of producing electric power that  
22 is cost-competitive with fossil-fuel generated elec-  
23 tricity by 2010, together with the production of  
24 fuels, chemicals, and other products under para-  
25 graph (6).

1           (5) GEOTHERMAL ENERGY.—The goal of the  
2 geothermal program shall be to develop, in partner-  
3 ship with industry, technologies and processes based  
4 on advanced hydrothermal systems and advanced  
5 heat and power systems, including geothermal heat  
6 pump technology, with a specific focus on—

7           (A) improving exploration and character-  
8 ization technology to increase the probability of  
9 drilling successful wells from 20 percent to 40  
10 percent by 2006;

11           (B) reducing the cost of drilling by 2008  
12 to an average cost of \$150 per foot; and

13           (C) developing enhanced geothermal sys-  
14 tems technology with the potential to double the  
15 useable geothermal resource base.

16           (6) BIOFUELS.—The goal of the biofuels pro-  
17 gram shall be to develop, in partnership with indus-  
18 try, advanced biochemical and thermochemical con-  
19 version technologies capable of making liquid and  
20 gaseous fuels from cellulosic feedstocks, that are  
21 price-competitive with gasoline or diesel, in either in-  
22 ternal combustion engines or fuel cell vehicles, by  
23 2010.

24           (7) HYDROGEN-BASED ENERGY SYSTEMS.—The  
25 goals of the hydrogen program shall be to support

1 research and development on technologies for pro-  
2 duction, storage, and use of hydrogen, including fuel  
3 cells and, specifically, fuel-cell vehicle development  
4 activities under section 1211.

5 (8) HYDROPOWER.—The goal of the hydro-  
6 power program shall be to develop, in partnership  
7 with industry, a new generation of turbine tech-  
8 nologies that are less damaging to fish and aquatic  
9 ecosystems.

10 (9) ELECTRIC ENERGY SYSTEMS AND STOR-  
11 AGE.—The goals of the electric energy and storage  
12 program shall be to develop, in partnership with  
13 industry—

14 (A) generators and transmission, distribu-  
15 tion, and storage systems that combine high ca-  
16 pacity with high efficiency;

17 (B) technologies to interconnect distributed  
18 energy resources with electric power systems,  
19 comply with any national interconnection stand-  
20 ards, have a minimum 10-year useful life;

21 (C) advanced technologies to increase the  
22 average efficiency of electric transmission facili-  
23 ties in rural and remote areas, giving priority  
24 for demonstrations to advanced transmission

1 technologies that are being or have been field  
2 tested;

3 (D) the use of new transmission tech-  
4 nologies, including composite conductor mate-  
5 rials, advanced protection devices, controllers,  
6 and other cost-effective methods and tech-  
7 nologies;

8 (E) the use of superconducting materials  
9 in power delivery equipment such as trans-  
10 mission and distribution cables, transformers,  
11 and generators;

12 (F) energy management technologies for  
13 enterprises with aggregated loads and distrib-  
14 uted generation, such as power parks;

15 (G) economic and system models to meas-  
16 ure the costs and benefits of improved system  
17 performance;

18 (H) hybrid distributed energy systems to  
19 optimize two or more distributed or on-site gen-  
20 eration technologies; and

21 (I) real-time transmission and distribution  
22 system control technologies that provide for  
23 continual exchange of information between gen-  
24 eration, transmission, distribution, and end-user  
25 facilities.

1 (c) SPECIAL PROJECTS.—In carrying out this sec-  
2 tion, the Secretary shall demonstrate—

3 (1) the use of advanced wind power technology,  
4 biomass, geothermal energy systems, and other re-  
5 newable energy technologies to assist in delivering  
6 electricity to rural and remote locations; and

7 (2) the combined use of wind power and coal  
8 gasification technologies.

9 (d) FINANCIAL ASSISTANCE TO RURAL AREAS.—In  
10 carrying out special projects under subsection (c), the Sec-  
11 retary may provide financial assistance to rural electric  
12 cooperatives and other rural entities.

13 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
14 are authorized to be appropriated to the Secretary for car-  
15 rying out research, development, demonstration, and tech-  
16 nology deployment activities under this subtitle—

17 (1) \$500,000,000 for fiscal year 2003;

18 (2) \$595,000,000 for fiscal year 2004;

19 (3) \$683,000,000 for fiscal year 2005; and

20 (4) \$733,000,000 for fiscal year 2006.

21 **SEC. 1222. BIOENERGY PROGRAMS.**

22 (a) PROGRAM DIRECTION.—The Secretary shall  
23 carry out research, development, demonstration, and tech-  
24 nology development activities related to bioenergy, includ-



1 ing programs under paragraphs (4) and (6) of section  
2 1221(b).

3 (b) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) BIOWATER ENERGY SYSTEMS.—From  
5 amounts authorized under section 1221(e), there are  
6 authorized to be appropriated to the Secretary for  
7 biowater energy systems—

8 (A) \$60,300,000 for fiscal year 2003;

9 (B) \$69,300,000 for fiscal year 2004;

10 (C) \$79,600,000 for fiscal year 2005; and

11 (D) \$86,250,000 for fiscal year 2006.

12 (2) BIOFUELS ENERGY SYSTEMS.—From  
13 amounts authorized under section 1221(e), there are  
14 authorized to be appropriated to the Secretary for  
15 biofuels energy systems—

16 (A) \$57,500,000 for fiscal year 2003;

17 (B) \$66,125,000 for fiscal year 2004;

18 (C) \$76,000,000 for fiscal year 2005; and

19 (D) \$81,400,000 for fiscal year 2006.

20 (3) INTEGRATED BIOENERGY RESEARCH AND  
21 DEVELOPMENT.—The Secretary may use funds au-  
22 thorized under paragraph (1) or (2) for programs,  
23 projects, or activities that integrate applications for  
24 both biowater and biofuels, including cross-cutting

1 research and development in feedstocks and eco-  
2 nomic analysis.

3 **SEC. 1223. HYDROGEN RESEARCH AND DEVELOPMENT.**

4 (a) **SHORT TITLE.**—This section may be cited as the  
5 “Hydrogen Future Act of 2002”.

6 (b) **PURPOSES.**—Section 102(b) of the Spark M.  
7 Matsunaga Hydrogen Research, Development, and Dem-  
8 onstration Act of 1990 (42 U.S.C. 12401(b)) is amended  
9 by striking paragraphs (2) and (3) and inserting the fol-  
10 lowing:

11 “(2) to direct the Secretary to develop a pro-  
12 gram of technology assessment, information trans-  
13 fer, and education in which Federal agencies, mem-  
14 bers of the transportation, energy, and other indus-  
15 tries, and other entities may participate;

16 “(3) to develop methods of hydrogen production  
17 that minimize production of greenhouse gases, in-  
18 cluding developing—

19 “(A) efficient production from non-renew-  
20 able resources; and

21 “(B) cost-effective production from renew-  
22 able resources such as biomass, geothermal,  
23 wind, and solar energy; and

1           “(4) to foster the use of hydrogen as a major  
2           energy source, including developing the use of hydro-  
3           gen in—

4                   “(A) isolated villages, islands, and commu-  
5                   nities in which other energy sources are not  
6                   available or are very expensive; and

7                   “(B) foreign economic development, to  
8                   avoid environmental damage from increased fos-  
9                   sil fuel use.”.

10          (c) REPORT TO CONGRESS.—Section 103 of the  
11          Spark M. Matsunaga Hydrogen Research, Development,  
12          and Demonstration Act of 1990 (42 U.S.C. 12402) is  
13          amended—

14                (1) in subsection (a), by striking “January 1,  
15                1999,” and inserting “1 year after the date of enact-  
16                ment of the Hydrogen Future Act of 2002, and bi-  
17                ennially thereafter,”;

18                (2) in subsection (b), by striking paragraphs  
19                (1) and (2) and inserting the following:

20                   “(1) an analysis of hydrogen-related activities  
21                   throughout the United States Government to iden-  
22                   tify productive areas for increased intragovernmental  
23                   collaboration;

24                   “(2) recommendations of the Hydrogen Tech-  
25                   nical Advisory Panel established by section 108 for

1 any improvements in the program that are needed,  
2 including recommendations for additional legislation;  
3 and

4 “(3) to the extent practicable, an analysis of  
5 State and local hydrogen-related activities.”; and

6 (3) by adding at the end the following:

7 “(c) COORDINATION PLAN.—The report under sub-  
8 section (a) shall be based on a comprehensive coordination  
9 plan for hydrogen energy prepared by the Secretary in  
10 consultation with other Federal agencies.”.

11 (d) HYDROGEN RESEARCH AND DEVELOPMENT.—  
12 Section 104 of the Spark M. Matsunaga Hydrogen Re-  
13 search, Development, and Demonstration Act of 1990 (42  
14 U.S.C. 12403) is amended—

15 (1) in subsection (b)(1), by striking “market-  
16 place;” and inserting “marketplace, including foreign  
17 markets, particularly where an energy infrastructure  
18 is not well developed;”;

19 (2) in subsection (e), by striking “this chapter”  
20 and inserting “this Act”;

21 (3) by striking subsection (g) and inserting the  
22 following:

23 “(g) COST SHARING.—

24 “(1) INABILITY TO FUND ENTIRE COST.—The  
25 Secretary shall not consider a proposal submitted by

1 a person from industry unless the proposal contains  
2 a certification that—

3 “(A) reasonable efforts to obtain non-Fed-  
4 eral funding in the amount necessary to pay  
5 100 percent of the cost of the project have been  
6 made; and

7 “(B) non-Federal funding in that amount  
8 could not reasonably be obtained.

9 “(2) NON-FEDERAL SHARE.—

10 “(A) IN GENERAL.—The Secretary shall  
11 require a commitment from non-Federal  
12 sources of at least 25 percent of the cost of the  
13 project.

14 “(B) REDUCTION OR ELIMINATION.—The  
15 Secretary may reduce or eliminate the cost-  
16 sharing requirement under subparagraph (A)  
17 for the proposed research and development  
18 project, including for technical analyses, eco-  
19 nomic analyses, outreach activities, and edu-  
20 cational programs, if the Secretary determines  
21 that reduction or elimination is necessary to  
22 achieve the objectives of this Act.”; and

23 (4) in subsection (i), by striking “this chapter”  
24 and inserting “this Act”.

1 (e) DEMONSTRATIONS.—Section 105 of the Spark M.  
2 Matsunaga Hydrogen Research, Development, and Dem-  
3 onstration Act of 1990 (42 U.S.C. 12404) is amended by  
4 striking subsection (c) and inserting the following:

5 “(c) NON-FEDERAL SHARE.—

6 “(1) IN GENERAL.—Except as provided in para-  
7 graph (2), the Secretary shall require a commitment  
8 from non-Federal sources of at least 50 percent of  
9 the costs directly relating to a demonstration project  
10 under this section.

11 “(2) REDUCTION.—The Secretary may reduce  
12 the non-Federal requirement under paragraph (1) if  
13 the Secretary determines that the reduction is ap-  
14 propriate considering the technological risks involved  
15 in the project and is necessary to meet the objectives  
16 of this Act.”.

17 (f) TECHNOLOGY TRANSFER.—Section 106 of the  
18 Spark M. Matsunaga Hydrogen Research, Development,  
19 and Demonstration Act of 1990 (42 U.S.C. 12405) is  
20 amended—

21 (1) in subsection (a)—

22 (A) in the first sentence—

23 (i) by striking “The Secretary shall  
24 conduct a program designed to accelerate

1 wider application” and inserting the fol-  
2 lowing:

3 “(1) IN GENERAL.—The Secretary shall con-  
4 duct a program designed to—

5 “(A) accelerate wider application”; and

6 (ii) by striking “private sector” and  
7 inserting “private sector; and

8 “(B) accelerate wider application of hydro-  
9 gen technologies in foreign countries to increase  
10 the global market for the technologies and fos-  
11 ter global economic development without harm-  
12 ful environmental effects.”; and

13 (B) in the second sentence, by striking  
14 “The Secretary” and inserting the following:

15 “(2) ADVICE AND ASSISTANCE.—The Sec-  
16 retary”; and

17 (2) in subsection (b)—

18 (A) in paragraph (2), by redesignating  
19 subparagraphs (A) through (D) as clauses (i)  
20 through (iv), respectively, and indenting appro-  
21 priately;

22 (B) by redesignating paragraphs (1) and  
23 (2) as subparagraphs (A) and (B), respectively,  
24 and indenting appropriately;

1 (C) by striking “The Secretary, in” and in-  
2 serting the following:

3 “(1) IN GENERAL.—The Secretary, in”;

4 (D) by striking “The information” and in-  
5 serting the following:

6 “(2) ACTIVITIES.—The information”; and

7 (E) in paragraph (1) (as designated by  
8 subparagraph (C))—

9 (i) in subparagraph (A) (as redesign-  
10 nated by subparagraph (B)), by striking  
11 “an inventory” and inserting “an update  
12 of the inventory”; and

13 (ii) in subparagraph (B) (as redesign-  
14 nated by subparagraph (B)), by striking  
15 “develop” and all that follows through “to  
16 improve” and inserting “develop with the  
17 National Aeronautics and Space Adminis-  
18 tration, the Department of Energy, other  
19 Federal agencies as appropriate, and in-  
20 dustry, an information exchange program  
21 to improve”.

22 (g) TECHNICAL PANEL REVIEW.—

23 (1) IN GENERAL.—Section 108 of the Spark M.  
24 Matsunaga Hydrogen Research, Development, and



1 Demonstration Act of 1990 (42 U.S.C. 12407) is  
2 amended—

3 (A) in subsection (b)—

4 (i) by striking “(b) MEMBERSHIP.—

5 The technical panel shall be appointed”

6 and inserting the following:

7 “(b) MEMBERSHIP.—

8 “(1) IN GENERAL.—The technical panel shall  
9 be comprised of not fewer than 9 nor more than 15  
10 members appointed”;

11 (ii) by striking the second sentence  
12 and inserting the following:

13 “(2) TERMS.—

14 “(A) IN GENERAL.—The term of a mem-  
15 ber of the technical panel shall be not more  
16 than 3 years.

17 “(B) STAGGERED TERMS.—The Secretary  
18 may appoint members of the technical panel in  
19 a manner that allows the terms of the members  
20 serving at any time to expire at spaced intervals  
21 so as to ensure continuity in the functioning of  
22 the technical panel.

23 “(C) REAPPOINTMENT.—A member of the  
24 technical panel whose term expires may be re-  
25 appointed.”; and

1 (iii) by striking “The technical panel  
2 shall have a chairman,” and inserting the  
3 following:

4 “(3) CHAIRPERSON.—The technical panel shall  
5 have a chairperson,”; and

6 (B) in subsection (d)—

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

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

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

13 and

14 (iv) by adding at the end the fol-  
15 lowing:

16 “(3) the plan developed by the interagency task  
17 force under section 202(b) of the Hydrogen Future  
18 Act of 1996.”.

19 (2) NEW APPOINTMENTS.—Not later than 180  
20 days after the date of enactment of this Act, the  
21 Secretary—

22 (A) shall review the membership composi-  
23 tion of the Hydrogen Technical Advisory Panel;

24 and

1 (B) may appoint new members consistent  
2 with the amendments made by subsection (a).

3 (h) AUTHORIZATION OF APPROPRIATIONS.—Section  
4 109 of the Spark M. Matsunaga Hydrogen Research, De-  
5 velopment, and Demonstration Act of 1990 (42 U.S.C.  
6 12408) is amended—

7 (1) in paragraph (8), by striking “and”;

8 (2) in paragraph (9), by striking the period and  
9 inserting a semicolon; and

10 (3) by adding at the end the following:

11 “(10) \$65,000,000 for fiscal year 2003;

12 “(11) \$70,000,000 for fiscal year 2004;

13 “(12) \$75,000,000 for fiscal year 2005; and

14 “(13) \$80,000,000 for fiscal year 2006.”.

15 (i) FUEL CELLS.—

16 (1) INTEGRATION OF FUEL CELLS WITH HY-  
17 DROGEN PRODUCTION SYSTEMS.—Section 201 of the  
18 Hydrogen Future Act of 1996 is amended—

19 (A) in subsection (a)—

20 (i) by striking “(a) Not later than 180  
21 days after the date of enactment of this  
22 section, and subject” and inserting “(a) IN  
23 GENERAL.—Subject”; and

24 (B) by striking “with—” and all that fol-  
25 lows and inserting “into Federal, State, and

1 local government facilities for stationary and  
2 transportation applications.”;

3 (2) in subsection (b), by striking “gas is” and  
4 inserting “basis”;

5 (3) in subsection (c)(2), by striking “systems  
6 described in subsections (a)(1) and (a)(2)” and in-  
7 serting “projects proposed”; and

8 (4) by striking subsection (d) and inserting the  
9 following:

10 “(d) NON-FEDERAL SHARE.—

11 “(1) IN GENERAL.—Except as provided in para-  
12 graph (2), the Secretary shall require a commitment  
13 from non-Federal sources of at least 50 percent of  
14 the costs directly relating to a demonstration project  
15 under this section.

16 “(2) REDUCTION.—The Secretary may reduce  
17 the non-Federal requirement under paragraph (1) if  
18 the Secretary determines that the reduction is ap-  
19 propriate considering the technological risks involved  
20 in the project and is necessary to meet the objectives  
21 of this Act.”.

22 (2) COOPERATIVE AND COST-SHARING AGREE-  
23 MENTS; INTEGRATION OF TECHNICAL INFORMA-  
24 TION.—Title II of the Hydrogen Future Act of 1996  
25 (42 U.S.C. 12403 note; Public Law 104–271) is

1       amended by striking section 202 and inserting the  
2       following:

3       **“SEC. 202. INTERAGENCY TASK FORCE.**

4       “(a) ESTABLISHMENT.—Not later than 120 days  
5 after the date of enactment of this section, the Secretary  
6 shall establish an interagency task force led by a Deputy  
7 Assistant Secretary of the Department of Energy and  
8 comprised of representatives of—

9       “(1) the Office of Science and Technology Policy;

10       “(2) the Department of Transportation;

11       “(3) the Department of Defense;

12       “(4) the Department of Commerce (including  
13 the National Institute for Standards and Tech-  
14 nology);

15       “(5) the Environmental Protection Agency;

16       “(6) the National Aeronautics and Space Ad-  
17 ministration; and

18       “(7) other agencies as appropriate.

19       “(b) DUTIES.—

20       “(1) IN GENERAL.—The task force shall de-  
21 velop a plan for carrying out this title.

22       “(2) FOCUS OF PLAN.—The plan shall focus on  
23 development and demonstration of integrated sys-  
24 tems and components for—

1           “(A) hydrogen production, storage, and  
2           use in Federal, State, and local government  
3           buildings and vehicles;

4           “(B) hydrogen-based infrastructure for  
5           buses and other fleet transportation systems  
6           that include zero-emission vehicles; and

7           “(C) hydrogen-based distributed power  
8           generation, including the generation of com-  
9           bined heat, power, and hydrogen.

10 **“SEC. 203. COOPERATIVE AND COST-SHARING AGREE-**  
11 **MENTS.**

12           “The Secretary shall enter into cooperative and cost-  
13 sharing agreements with Federal, State, and local agencies  
14 for participation by the agencies in demonstrations at fa-  
15 cilities administered by the agencies, with the aim of inte-  
16 grating high efficiency hydrogen systems using fuel cells  
17 into the facilities to provide immediate benefits and pro-  
18 mote a smooth transition to hydrogen as an energy source.

19 **“SEC. 204. INTEGRATION AND DISSEMINATION OF TECH-**  
20 **NICAL INFORMATION.**

21           “The Secretary shall—

22           “(1) integrate all the technical information that  
23 becomes available as a result of development and  
24 demonstration projects under this title;

1           “(2) make the information available to all Fed-  
2           eral and State agencies for dissemination to all in-  
3           terested persons; and

4           “(3) foster the exchange of generic, nonpropr-  
5           etary information and technology developed under  
6           this title among industry, academia, and Federal,  
7           State, and local governments, to help the United  
8           States economy attain the economic benefits of the  
9           information and technology.

10 **“SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

11           “There are authorized to be appropriated, for activi-  
12           ties under this title—

13           “(1) \$25,000,000 for fiscal year 2003;

14           “(2) \$30,000,000 for fiscal year 2004;

15           “(3) \$35,000,000 for fiscal year 2005; and

16           “(4) \$40,000,000 for fiscal year 2006.”.

17           **Subtitle C—Fossil Energy**

18 **SEC. 1231. ENHANCED FOSSIL ENERGY RESEARCH AND DE-**

19           **VELOPMENT.**

20           (a) PROGRAM DIRECTION.—The Secretary shall con-  
21           duct a balanced energy research, development, demonstra-  
22           tion, and technology deployment program to enhance fossil  
23           energy.

24           (b) PROGRAM GOALS.—

1           (1) CORE FOSSIL RESEARCH AND DEVELOP-  
2           MENT.—The goals of the core fossil research and de-  
3           velopment program shall be to reduce emissions  
4           from fossil fuel use by developing technologies, in-  
5           cluding precombustion technologies, by 2015 with  
6           the capability of realizing—

7                   (A) electricity generating efficiencies of 60  
8                   percent for coal and 75 percent for natural gas;

9                   (B) combined heat and power thermal effi-  
10                  ciencies of more than 85 percent;

11                  (C) fuels utilization efficiency of 75 per-  
12                  cent for the production of liquid transportation  
13                  fuels from coal;

14                  (D) near zero emissions of mercury and of  
15                  emissions that form fine particles, smog, and  
16                  acid rain;

17                  (E) reduction of carbon dioxide emissions  
18                  by at least 40 percent through efficiency im-  
19                  provements and 100 percent with sequestration;  
20                  and

21                  (F) improved reliability, efficiency, reduc-  
22                  tions of air pollutant emissions, or reductions in  
23                  solid waste disposal requirements.

24           (2) OFFSHORE OIL AND NATURAL GAS RE-  
25           SOURCES.—The goal of the offshore oil and natural



1 gas resources program shall be to develop tech-  
2 nologies to—

3 (A) extract methane hydrates in coastal  
4 waters of the United States, and

5 (B) develop natural gas and oil reserves in  
6 the ultra-deepwater of the Central and Western  
7 Gulf of Mexico.

8 (3) ONSHORE OIL AND NATURAL GAS RE-  
9 SOURCES.—The goal of the onshore oil and natural  
10 gas resources program shall be to advance the  
11 science and technology available to domestic onshore  
12 petroleum producers, particularly independent opera-  
13 tors, through—

14 (A) advances in technology for exploration  
15 and production of domestic petroleum re-  
16 sources, particularly those not accessible with  
17 current technology;

18 (B) improvement in the ability to extract  
19 hydrocarbons from known reservoirs and classes  
20 of reservoirs; and

21 (C) development of technologies and prac-  
22 tices that reduce the threat to the environment  
23 from petroleum exploration and production and  
24 decrease the cost of effective environmental  
25 compliance.

1           (4) TRANSPORTATION FUELS.—The goals of  
2 the transportation fuels program shall be to increase  
3 the price elasticity of oil supply and demand by fo-  
4 cusing research on—

5                   (A) reducing the cost of producing trans-  
6 portation fuels from coal and natural gas; and

7                   (B) indirect liquefaction of coal and bio-  
8 mass.

9           (c) AUTHORIZATION OF APPROPRIATIONS.—

10           (1) IN GENERAL.—There are authorized to be ap-  
11 propriated to the Secretary for carrying out re-  
12 search, development, demonstration, and technology  
13 deployment activities under this section—

14                   (A) \$485,000,000 for fiscal year 2003;

15                   (B) \$508,000,000 for fiscal year 2004;

16                   (C) \$532,000,000 for fiscal year 2005; and

17                   (D) \$558,000,000 for fiscal year 2006.

18           (2) LIMITS ON USE OF FUNDS.—

19                   (A) None of the funds authorized in para-  
20 graph (1) may be used for—

21                           (i) fossil energy environmental res-  
22 toration;

23                           (ii) import/export authorization;

24                           (iii) program direction; or

25                           (iv) general plant projects.

1           (B) COAL-BASED PROJECTS.—The coal-  
2           based projects funded under this section shall  
3           be consistent with the goals in subsection (b).  
4           The program shall emphasize carbon capture  
5           and sequestration technologies and gasification  
6           technologies, including gasification combined  
7           cycle, gasification fuel cells, gasification co-pro-  
8           duction, hybrid gasification/combustion, or  
9           other technology with the potential to address  
10          the goals in subparagraphs (D) or (E) of sub-  
11          section (b)(1).

12 **SEC. 1232. POWER PLANT IMPROVEMENT INITIATIVE.**

13          (a) PROGRAM DIRECTION.—The Secretary shall con-  
14          duct a balanced energy research, development, demonstra-  
15          tion, and technology deployment program to demonstrate  
16          commercial applications of advanced lignite and coal-based  
17          technologies applicable to new or existing power plants (in-  
18          cluding co-production plants) that advance the efficiency,  
19          environmental performance, and cost-competitiveness sub-  
20          stantially beyond technologies that are in operation or  
21          have been demonstrated by the date of enactment of this  
22          subtitle.

23          (b) TECHNICAL MILESTONES.—

24                  (1) IN GENERAL.—The Secretary shall set tech-  
25          nical milestones specifying efficiency and emissions

1 levels that projects shall be designed to achieve. The  
2 milestones shall become more restrictive over the life  
3 of the program.

4 (2) 2010 EFFICIENCY MILESTONES.—The mile-  
5 stones shall be designed to achieve by 2010 interim  
6 thermal efficiency of—

7 (A) 45 percent for coal of more than 9,000  
8 Btu;

9 (B) 44 percent for coal of 7,000 to 9,000  
10 Btu; and

11 (C) 42 percent for coal of less than 7,000  
12 Btu.

13 (3) 2020 EFFICIENCY MILESTONES.—The mile-  
14 stones shall be designed to achieve by 2020 thermal  
15 efficiency of—

16 (A) 60 percent for coal of more than 9,000  
17 Btu;

18 (B) 59 percent for coal of 7,000 to 9,000  
19 Btu; and

20 (C) 57 percent for coal of less than 7,000  
21 Btu.

22 (4) EMISSIONS MILESTONES.—The milestones  
23 shall include near zero emissions of mercury and  
24 greenhouse gases and of emissions that form fine  
25 particles, smog, and acid rain.

1           (5) REGIONAL AND QUALITY DIFFERENCES.—

2           The Secretary may consider regional and quality dif-  
3           ferences in developing the efficiency milestones.

4           (c) PROJECT CRITERIA.—The demonstration activi-  
5           ties proposed to be conducted at a new or existing coal-  
6           based electric generation unit having a nameplate rating  
7           of not less than 100 megawatts, excluding a co-production  
8           plant, shall include at least one of the following—

9           (1) a means of recycling or reusing a significant  
10           portion of coal combustion wastes produced by coal-  
11           based generating units, excluding practices that are  
12           commercially available by the date of enactment of  
13           this subtitle;

14           (2) a means of capture and sequestering emis-  
15           sions, including greenhouse gases, in a manner that  
16           is more effective and substantially below the cost of  
17           technologies that are in operation or that have been  
18           demonstrated by the date of enactment of this sub-  
19           title;

20           (3) a means of controlling sulfur dioxide and ni-  
21           trogen oxide or mercury in a manner that improves  
22           environmental performance beyond technologies that  
23           are in operation or that have been demonstrated by  
24           the date of enactment of this subtitle—

1 (A) in the case of an existing unit, achieve  
2 an overall thermal design efficiency improve-  
3 ment compared to the efficiency of the unit as  
4 operated, of not less than—

5 (i) 7 percent for coal of more than  
6 9,000 Btu;

7 (ii) 6 percent for coal of 7,000 to  
8 9,000 Btu; or

9 (iii) 4 percent for coal of less than  
10 7,000 Btu; or

11 (B) in the case of a new unit, achieve the  
12 efficiency milestones set for in subsection (b)  
13 compared to the efficiency of a typical unit as  
14 operated on the date of enactment of this sub-  
15 title, before any retrofit, repowering, replace-  
16 ment, or installation.

17 (d) STUDY.—The Secretary, in consultation with the  
18 Administrator of the Environmental Protection Agency,  
19 the Secretary of the Interior, and interested entities (in-  
20 cluding coal producers, industries using coal, organiza-  
21 tions to promote coal or advanced coal technologies, envi-  
22 ronmental organizations, and organizations representing  
23 workers), shall conduct an assessment that identifies per-  
24 formance criteria that would be necessary for coal-based  
25 technologies to meet, to enable future reliance on coal in

1 an environmentally sustainable manner for electricity gen-  
2 eration, use as a chemical feedstock, and use as a trans-  
3 portation fuel.

4 (e) AUTHORIZATION OF APPROPRIATIONS.—

5 (1) IN GENERAL.—There are authorized to be  
6 appropriated to the Secretary for carrying out activi-  
7 ties under this section \$200,000,000 for each of fis-  
8 cal years 2003 through 2011.

9 (2) LIMITATION ON FUNDING OF PROJECTS.—  
10 Eighty percent of the funding under this section  
11 shall be limited to—

12 (A) carbon capture and sequestration tech-  
13 nologies;

14 (B) gasification technologies, including  
15 gasification combined cycle, gasification fuel  
16 cells, gasification co-production, or hybrid gas-  
17 ification/combustion; or

18 (C) or other technology either by itself or  
19 in conjunction with other technologies has the  
20 potential to achieve near zero emissions.

21 **SEC. 1233. RESEARCH AND DEVELOPMENT FOR ADVANCED**  
22 **SAFE AND EFFICIENT COAL MINING TECH-**  
23 **NOLOGIES.**

24 (a) ESTABLISHMENT.—The Secretary of Energy  
25 shall establish a cooperative research partnership involving

1 appropriate Federal agencies, coal producers, including as-  
2 sociations, equipment manufacturers, universities with  
3 mining engineering departments, and other relevant enti-  
4 ties to—

5           (1) develop mining research priorities identified  
6           by the Mining Industry of the Future Program and  
7           in the recommendations from relevant reports of the  
8           National Academy of Sciences on mining tech-  
9           nologies;

10           (2) establish a process for conducting joint in-  
11           dustry-government research and development; and

12           (3) expand mining research capabilities at insti-  
13           tutions of higher education.

14           (b) AUTHORIZATION OF APPROPRIATIONS.—

15           (1) IN GENERAL.—There are authorized to be  
16           appropriated to carry out activities under this sec-  
17           tion, \$12,000,000 in fiscal year 2003 and  
18           \$15,000,000 in fiscal year 2004.

19           (2) LIMIT ON USE OF FUNDS.—Not less than  
20           20 percent of any funds appropriated in a given fis-  
21           cal year under this subsection shall be dedicated to  
22           research carried out at institutions of higher edu-  
23           cation.



1 **SEC. 1234. ULTRA-DEEPWATER AND UNCONVENTIONAL RE-**  
2 **SOURCE EXPLORATION AND PRODUCTION**  
3 **TECHNOLOGIES.**

4 (a) DEFINITIONS.—In this section:

5 (1) ADVISORY COMMITTEE.—The term “Advi-  
6 sory Committee” means the Ultra-Deepwater and  
7 Unconventional Resource Technology Advisory Com-  
8 mittee established under subsection (c).

9 (2) AWARD.—The term “award” means a coop-  
10 erative agreement, contract, award or other types of  
11 agreement as appropriate.

12 (3) DEEPWATER.—The term “deepwater”  
13 means a water depth that is greater than 200 but  
14 less than 1,500 meters.

15 (4) ELIGIBLE AWARD RECIPIENT.—The term  
16 “eligible award recipient” includes—

17 (A) a research institution;

18 (B) an institution of higher education;

19 (C) a corporation; and

20 (D) a managing consortium formed among  
21 entities described in subparagraphs (A) through  
22 (C).

23 (5) INSTITUTION OF HIGHER EDUCATION.—The  
24 term “institution of higher education” has the  
25 meaning given the term in section 101 of the Higher  
26 Education Act of 1965 (20 U.S.C. 1001).

1           (6) MANAGING CONSORTIUM.—The term “man-  
2           aging consortium” means an entity that—

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

5                   (B)(i) is an organization described in sec-  
6           tion 501(e)(3) of the Internal Revenue Code of  
7           1986; and

8                   (ii) is exempt from taxation under section  
9           501(a) of that Code;

10                  (C) is experienced in planning and man-  
11           aging programs in natural gas or other petro-  
12           leum exploration and production research, de-  
13           velopment, and demonstration; and

14                  (D) has demonstrated capabilities and ex-  
15           perience in representing the views and priorities  
16           of industry, institutions of higher education and  
17           other research institutions in formulating com-  
18           prehensive research and development plans and  
19           programs.

20           (7) PROGRAM.—The term “program” means  
21           the program of research, development, and dem-  
22           onstration established under subsection (b)(1)(A).

23           (8) ULTRA-DEEPWATER.—The term “ultra-  
24           deepwater” means a water depth that is equal to or  
25           greater than 1,500 meters.

1           (9) ULTRA-DEEPWATER ARCHITECTURE.—The  
2 term “ultra-deepwater architecture” means the inte-  
3 gration of technologies to explore and produce nat-  
4 ural gas or petroleum products located at ultra-deep-  
5 water depths.

6           (10) ULTRA-DEEPWATER RESOURCE.—The  
7 term “ultra-deepwater resource” means natural gas  
8 or any other petroleum resource (including methane  
9 hydrate) located in an ultra-deepwater area.

10           (11) UNCONVENTIONAL RESOURCE.—The term  
11 “unconventional resource” means natural gas or any  
12 other petroleum resource located in a formation on  
13 physically or economically inaccessible land currently  
14 available for lease for purposes of natural gas or  
15 other petroleum exploration or production.

16           (b) ULTRA-DEEPWATER AND UNCONVENTIONAL EX-  
17 PLORATION AND PRODUCTION PROGRAM.—

18           (1) ESTABLISHMENT.—

19           (A) IN GENERAL.—The Secretary shall es-  
20 tablish a program of research into, and develop-  
21 ment and demonstration of, ultra-deepwater re-  
22 source and unconventional resource exploration  
23 and production technologies.

1 (B) LOCATION; IMPLEMENTATION.—The  
2 program under this subsection shall be carried  
3 out—

4 (i) in areas on the outer Continental  
5 Shelf that, as of the date of enactment of  
6 this section, are available for leasing; and

7 (ii) on unconventional resources.

8 (2) COMPONENTS.—The program shall include  
9 one or more programs for long-term research into—

10 (A) new deepwater ultra-deepwater re-  
11 source and unconventional resource exploration  
12 and production technologies; or

13 (B) environmental mitigation technologies  
14 for production of ultra-deepwater resource and  
15 unconventional resource.

16 (c) ADVISORY COMMITTEE.—

17 (1) ESTABLISHMENT.—Not later than 30 days  
18 after the date of enactment of this section, the Sec-  
19 retary shall establish an advisory committee to be  
20 known as the “Ultra-Deepwater and Unconventional  
21 Resource Technology Advisory Committee”.

22 (2) MEMBERSHIP.—

23 (A) COMPOSITION.—Subject to subpara-  
24 graph (B), the advisory committee shall be com-

1 posed of 7 members appointed by the Secretary  
2 that—

3 (i) have extensive operational knowl-  
4 edge of and experience in the natural gas  
5 and other petroleum exploration and pro-  
6 duction industry; and

7 (ii) are not Federal employees or em-  
8 ployees of contractors to a federal agency.

9 (B) EXPERTISE.—Of the members of the  
10 advisory committee appointed under subpara-  
11 graph (A)—

12 (i) at least 4 members shall have ex-  
13 tensive knowledge of ultra-deepwater re-  
14 source exploration and production tech-  
15 nologies; and

16 (ii) at least 3 members shall have ex-  
17 tensive knowledge of unconventional re-  
18 source exploration and production tech-  
19 nologies.

20 (3) DUTIES.—The advisory committee shall ad-  
21 vise the Secretary in the implementation of this sec-  
22 tion.

23 (4) COMPENSATION.—A member of the advi-  
24 sory committee shall serve without compensation but  
25 shall receive travel expenses, including per diem in

1        lieu of subsistence, in accordance with applicable  
2        provisions under subchapter I of chapter 57 of title  
3        5, United States Code.

4        (d) AWARDS.—

5            (1) TYPES OF AWARDS.—

6                    (A) ULTRA-DEEPWATER RESOURCES.—

7                            (i) IN GENERAL.—The Secretary shall  
8                            make awards for research into, and devel-  
9                            opment and demonstration of, ultra-deep-  
10                            water resource exploration and production  
11                            technologies—

12                                    (I) to maximize the value of the  
13                                    ultra-deepwater resources of the  
14                                    United States;

15                                    (II) to increase the supply of  
16                                    ultra-deepwater resources by lowering  
17                                    the cost and improving the efficiency  
18                                    of exploration and production of such  
19                                    resources; and

20                                    (III) to improve safety and mini-  
21                                    mize negative environmental impacts  
22                                    of that exploration and production.

23                                    (ii) ULTRA-DEEPWATER ARCHITEC-  
24                                    TURE.—In furtherance of the purposes de-  
25                                    scribed in clause (i), the Secretary shall,

1           where appropriate, solicit proposals from a  
2           managing consortium to develop and dem-  
3           onstrate next-generation architecture for  
4           ultra-deepwater resource production.

5           (B) UNCONVENTIONAL RESOURCES.—The  
6           Secretary shall make awards—

7                   (i) to carry out research into, and de-  
8                   velopment and demonstration of, tech-  
9                   nologies to maximize the value of uncon-  
10                  ventional resources; and

11                  (ii) to develop technologies to  
12                  simultaneously—

13                           (I) increase the supply of uncon-  
14                           ventional resources by lowering the  
15                           cost and improving the efficiency of  
16                           exploration and production of uncon-  
17                           ventional resources; and

18                           (II) improve safety and minimize  
19                           negative environmental impacts of  
20                           that exploration and production.

21           (2) CONDITIONS.—An award made under this  
22           subsection shall be subject to the following condi-  
23           tions:

24                   (A) MULTIPLE ENTITIES.—If an award re-  
25                   cipient is composed of more than one eligible

1 organization, the recipient shall provide a  
2 signed contract, agreed to by all eligible organi-  
3 zations comprising the award recipient, that de-  
4 fines, in a manner that is consistent with all  
5 applicable law in effect as of the date of the  
6 contract, all rights to intellectual property for—

7 (i) technology in existence as of that  
8 date; and

9 (ii) future inventions conceived and  
10 developed using funds provided under the  
11 award.

12 (B) COMPONENTS OF APPLICATION.—An  
13 application for an award for a demonstration  
14 project shall describe with specificity any in-  
15 tended commercial applications of the tech-  
16 nology to be demonstrated.

17 (C) COST SHARING.—Non-Federal cost  
18 sharing shall be in accordance with section  
19 1403.

20 (e) PLAN AND FUNDING.—

21 (1) IN GENERAL.—The Secretary, and where  
22 appropriate, a managing consortium under sub-  
23 section (d)(1)(A)(ii), shall formulate annual oper-  
24 ating and performance objectives, develop multi-year  
25 technology roadmaps, and establish research and de-



1       velopment priorities for the funding of activities  
2       under this section which will serve as guidelines for  
3       making awards including cost-matching objectives.

4           (2) INDUSTRY INPUT.—In carrying out this  
5       program, the Secretary shall promote maximum in-  
6       dustry input through the use of managing consortia  
7       or other organizations in planning and executing the  
8       research areas and conducting workshops or reviews  
9       to ensure that this program focuses on industry  
10      problems and needs.

11      (f) AUDITING.—

12           (1) IN GENERAL.—The Secretary shall retain  
13      an independent, commercial auditor to determine the  
14      extent to which funds authorized by this section,  
15      provided through a managing consortium, are ex-  
16      pended in a manner consistent with the purposes of  
17      this section.

18           (2) REPORTS.—The auditor retained under  
19      paragraph (1) shall submit to the Secretary, and the  
20      Secretary shall transmit to the appropriate congres-  
21      sional committees, an annual report that describes—

22                   (A) the findings of the auditor under para-  
23                   graph (1); and

1 (B) a plan under which the Secretary may  
2 remedy any deficiencies identified by the audi-  
3 tor.

4 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
5 are authorized to be appropriated to the Secretary such  
6 sums as may be necessary to carry out this section.

7 (h) TERMINATION OF AUTHORITY.—The authority  
8 provided by this section shall terminate on September 30,  
9 2009.

10 (i) SAVINGS PROVISION.—Nothing in this section is  
11 intended to displace, duplicate or diminish any previously  
12 authorized research activities of the Department of En-  
13 ergy.

14 **SEC. 1235. RESEARCH AND DEVELOPMENT FOR NEW NAT-**  
15 **URAL GAS TRANSPORTATION TECH-**  
16 **NOLOGIES.**

17 The Secretary of Energy shall conduct a comprehen-  
18 sive five-year program for research, development and dem-  
19 onstration to improve the reliability, efficiency, safety and  
20 integrity of the natural gas transportation and distribu-  
21 tion infrastructure and for distributed energy resources  
22 (including microturbines, fuel cells, advanced engine-gen-  
23 erators, gas turbines, reciprocating engines, hybrid power  
24 generation systems, and all ancillary equipment for dis-  
25 patch, control and maintenance).

1 **SEC. 1236. AUTHORIZATION OF APPROPRIATIONS FOR OF-**  
2 **FICE OF ARCTIC ENERGY.**

3 There are authorized to be appropriated to the Sec-  
4 retary for the Office of Arctic Energy under section 3197  
5 of the Floyd D. Spence National Defense Authorization  
6 Act for Fiscal Year 2001 (Public Law 106–398) such  
7 sums as may be necessary, but not to exceed \$25,000,000  
8 for each of fiscal years 2003 through 2011.

9 **Subtitle D—Nuclear Energy**

10 **SEC. 1241. ENHANCED NUCLEAR ENERGY RESEARCH AND**  
11 **DEVELOPMENT.**

12 (a) PROGRAM DIRECTION.—The Secretary shall con-  
13 duct an energy research, development, demonstration, and  
14 technology deployment program to enhance nuclear en-  
15 ergy.

16 (b) PROGRAM GOALS.—The program shall—

17 (1) support research related to existing United  
18 States nuclear power reactors to extend their life-  
19 times and increase their reliability while optimizing  
20 their current operations for greater efficiencies;

21 (2) examine advanced proliferation-resistant  
22 and passively safe reactor designs, new reactor de-  
23 signs with higher efficiency, lower cost, and im-  
24 proved safety, proliferation-resistant and high burn-  
25 up nuclear fuels, minimization of generation of ra-  
26 dioactive materials, improved nuclear waste manage-

1 ment technologies, and improved instrumentation  
2 science;

3 (3) attract new students and faculty to the nu-  
4 clear sciences and nuclear engineering and related  
5 fields (including health physics and nuclear and  
6 radiochemistry) through—

7 (A) university-based fundamental research  
8 for existing faculty and new junior faculty;

9 (B) support for the re-licensing of existing  
10 training reactors at universities in conjunction  
11 with industry; and

12 (C) completing the conversion of existing  
13 training reactors with proliferation resistant  
14 fuels that are low enriched and to adapt those  
15 reactors to new investigative uses;

16 (4) maintain a national capability and infra-  
17 structure to produce medical isotopes and ensure a  
18 well trained cadre of nuclear medicine specialists in  
19 partnership with industry;

20 (5) ensure that our nation has adequate capa-  
21 bility to power future satellite and space missions;  
22 and

23 (6) maintain, where appropriate through a  
24 prioritization process, a balanced research infra-

1 structure so that future research programs can use  
2 these facilities.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) CORE NUCLEAR RESEARCH PROGRAMS.—

5 There are authorized to be appropriated to the Sec-  
6 retary for carrying out research, development, dem-  
7 onstration, and technology deployment activities  
8 under subsection (b)(1) through (3)—

9 (A) \$100,000,000 for fiscal year 2003;

10 (B) \$110,000,000 for fiscal year 2004;

11 (C) \$120,000,000 for fiscal year 2005; and

12 (D) \$130,000,000 for fiscal year 2006.

13 (2) SUPPORTING NUCLEAR ACTIVITIES.—There  
14 are authorized to be appropriated to the Secretary  
15 for carrying out activities under subsection (b)(4)  
16 through (6), as well as nuclear facilities management  
17 and program direction—

18 (A) \$200,000,000 for fiscal year 2003;

19 (B) \$202,000,000 for fiscal year 2004;

20 (C) \$207,000,000 for fiscal year 2005; and

21 (D) \$212,000,000 for fiscal year 2006.

22 **SEC. 1242. UNIVERSITY NUCLEAR SCIENCE AND ENGINEER-**  
23 **ING SUPPORT.**

24 (a) ESTABLISHMENT.—The Secretary shall support  
25 a program to maintain the nation's human resource in-

1 vestment and infrastructure in the nuclear sciences and  
2 engineering and related fields (including health physics  
3 and nuclear and radiochemistry), consistent with depart-  
4 mental missions related to civilian nuclear research and  
5 development.

6 (b) DUTIES.—In carrying out the program under this  
7 section, the Secretary shall—

8 (1) develop a graduate and undergraduate fel-  
9 lowship program to attract new and talented stu-  
10 dents;

11 (2) assist universities in recruiting and retain-  
12 ing new faculty in the nuclear sciences and engineer-  
13 ing through a Junior Faculty Research Initiation  
14 Grant Program;

15 (3) support fundamental nuclear sciences and  
16 engineering research through the Nuclear Engineer-  
17 ing Education Research Program;

18 (4) encourage collaborative nuclear research be-  
19 tween industry, national laboratories and universities  
20 through the Nuclear Energy Research Initiative; and

21 (5) support communication and outreach re-  
22 lated to nuclear science and engineering.

23 (c) MAINTAINING UNIVERSITY RESEARCH AND  
24 TRAINING REACTORS AND ASSOCIATED INFRASTRUC-  
25 TURE.—Activities under this section may include:

1           (1) Converting research reactors to low-enrich-  
2           ment fuels, upgrading operational instrumentation,  
3           and sharing of reactors among universities.

4           (2) Providing technical assistance, in collabora-  
5           tion with the U.S. nuclear industry, in re-licensing  
6           and upgrading training reactors as part of a student  
7           training program.

8           (3) Providing funding for reactor improvements  
9           as part of a focused effort that emphasizes research,  
10          training, and education.

11          (d) UNIVERSITY-NATIONAL LABORATORY INTER-  
12          ACTIONS.—The Secretary shall develop—

13           (1) a sabbatical fellowship program for univer-  
14           sity professors to spend extended periods of time at  
15           National Laboratories in the areas of nuclear science  
16           and technology; and

17           (2) a visiting scientist program in which Na-  
18           tional Laboratory staff can spend time in academic  
19           nuclear science and engineering departments. The  
20           Secretary may provide for fellowships for students to  
21           spend time at National Laboratories in the area of  
22           nuclear science with a member of the Laboratory  
23           staff acting as a mentor.

24          (e) OPERATING AND MAINTENANCE COSTS.—Fund-  
25          ing for a research project provided under this section may

1 be used to offset a portion of the operating and mainte-  
2 nance costs of a university research reactor used in the  
3 research project, on a cost-shared basis with the univer-  
4 sity.

5 (f) AUTHORIZATION OF APPROPRIATIONS.—From  
6 amounts authorized under section 1241(c)(1), the fol-  
7 lowing amounts are authorized for activities under this  
8 section—

9 (1) \$33,000,000 for fiscal year 2003;

10 (2) \$37,900,000 for fiscal year 2004;

11 (3) \$43,600,000 for fiscal year 2005; and

12 (4) \$50,100,000 for fiscal year 2006.

13 **SEC. 1243. NUCLEAR ENERGY RESEARCH INITIATIVE.**

14 (a) ESTABLISHMENT.—The Secretary shall support  
15 a Nuclear Energy Research Initiative for grants for re-  
16 search relating to nuclear energy.

17 (b) AUTHORIZATION OF APPROPRIATIONS.—From  
18 amounts authorized under section 1241(c), there are au-  
19 thorized to be appropriated to the Secretary for activities  
20 under this section such sums as are necessary for each  
21 fiscal year.

22 **SEC. 1244. NUCLEAR ENERGY PLANT OPTIMIZATION PRO-**  
23 **GRAM.**

24 (a) ESTABLISHMENT.—The Secretary shall support  
25 a Nuclear Energy Plant Optimization Program for grants



1 to improve nuclear energy plant reliability, availability,  
2 and productivity. Notwithstanding section 1403, the pro-  
3 gram shall require industry cost-sharing of at least 50 per-  
4 cent and be subject to annual review by the Nuclear En-  
5 ergy Research Advisory Committee of the Department.

6 (b) AUTHORIZATION OF APPROPRIATIONS.—From  
7 amounts authorized under section 1241(c), there are au-  
8 thorized to be appropriated to the Secretary for activities  
9 under this section such sums as are necessary for each  
10 fiscal year.

11 **SEC. 1245. NUCLEAR ENERGY TECHNOLOGY DEVELOPMENT**  
12 **PROGRAM.**

13 (a) ESTABLISHMENT.—The Secretary shall support  
14 a Nuclear Energy Technology Development Program to  
15 develop a technology roadmap to design and develop new  
16 nuclear energy powerplants in the United States.

17 (b) GENERATION IV REACTOR STUDY.—The Sec-  
18 retary shall, as part of the program under subsection (a),  
19 also conduct a study of Generation IV nuclear energy sys-  
20 tems, including development of a technology roadmap and  
21 performance of research and development necessary to  
22 make an informed technical decision regarding the most  
23 promising candidates for commercial deployment. The  
24 study shall examine advanced proliferation-resistant and  
25 passively safe reactor designs, new reactor designs with

1 higher efficiency, lower cost and improved safety, pro-  
2 liferation-resistant and high burn-up fuels, minimization  
3 of generation of radioactive materials, improved nuclear  
4 waste management technologies, and improved instrumen-  
5 tation science. Not later than December 31, 2002, the Sec-  
6 retary shall submit to Congress a report describing the  
7 results of the study.

8 (c) AUTHORIZATION OF APPROPRIATIONS.—From  
9 amounts authorized to be appropriated under section  
10 1241(c), there are authorized to be appropriated to the  
11 Secretary for activities under this section such sums as  
12 are necessary for each fiscal year.

13 **Subtitle E—Fundamental Energy**  
14 **Science**

15 **SEC. 1251. ENHANCED PROGRAMS IN FUNDAMENTAL EN-**  
16 **ERGY SCIENCE.**

17 (a) PROGRAM DIRECTION.—The Secretary, acting  
18 through the Office of Science, shall—

19 (1) conduct a comprehensive program of funda-  
20 mental research, including research on chemical  
21 sciences, physics, materials sciences, biological and  
22 environmental sciences, geosciences, engineering  
23 sciences, plasma sciences, mathematics, and ad-  
24 vanced scientific computing;

1           (2) maintain, upgrade and expand the scientific  
2 user facilities maintained by the Office of Science  
3 and ensure that they are an integral part of the de-  
4 partmental mission for exploring the frontiers of  
5 fundamental science;

6           (3) maintain a leading-edge research capability  
7 in the energy-related aspects of nanoscience and  
8 nanotechnology, advanced scientific computing and  
9 genome research; and

10          (4) ensure that its fundamental science pro-  
11 grams, where appropriate, help inform the applied  
12 research and development programs of the Depart-  
13 ment.

14          (b) **AUTHORIZATION OF APPROPRIATIONS.**—There  
15 are authorized to be appropriated to the Secretary for car-  
16 rying out research, development, demonstration, and tech-  
17 nology deployment activities under this subtitle—

18           (1) \$3,785,000,000 for fiscal year 2003;

19           (2) \$4,153,000,000 for fiscal year 2004;

20           (3) \$4,586,000,000 for fiscal year 2005; and

21           (4) \$5,000,000,000 for fiscal year 2006.

22 **SEC. 1252. NANOSCALE SCIENCE AND ENGINEERING RE-**  
23 **SEARCH.**

24          (a) **ESTABLISHMENT.**—The Secretary, acting  
25 through the Office of Science, shall support a program of

1 research and development in nanoscience and  
2 nanoengineering consistent with the Department's statu-  
3 tory authorities related to research and development. The  
4 program shall include efforts to further the understanding  
5 of the chemistry, physics, materials science and engineer-  
6 ing of phenomena on the scale of 1 to 100 nanometers.

7 (b) DUTIES OF THE OFFICE OF SCIENCE.—In car-  
8 rying out the program under this section, the Office of  
9 Science shall—

10 (1) support both individual investigators and  
11 multidisciplinary teams of investigators;

12 (2) pursuant to subsection (c), develop, plan,  
13 construct, acquire, or operate special equipment or  
14 facilities for the use of investigators conducting re-  
15 search and development in nanoscience and  
16 nanoengineering;

17 (3) support technology transfer activities to  
18 benefit industry and other users of nanoscience and  
19 nanoengineering; and

20 (4) coordinate research and development activi-  
21 ties with industry and other federal agencies.

22 (c) NANOSCIENCE AND NANOENGINEERING RE-  
23 SEARCH CENTERS AND MAJOR INSTRUMENTATION.—

24 (1) AUTHORIZATION.—From amounts author-  
25 ized to be appropriated under section 1251(b), the

1 amounts specified under subsection (d)(2) shall, sub-  
2 ject to appropriations, be available for projects to  
3 develop, plan, construct, acquire, or operate special  
4 equipment, instrumentation, or facilities for inves-  
5 tigators conducting research and development in  
6 nanoscience and nanoengineering.

7 (2) PROJECTS.—Projects under paragraph (1)  
8 may include the measurement of properties at the  
9 scale of 1 to 100 nanometers, manipulation at such  
10 scales, and the integration of technologies based on  
11 nanoscience or nanoengineering into bulk materials  
12 or other technologies.

13 (3) FACILITIES.—Facilities under paragraph  
14 (1) may include electron microcharacterization facili-  
15 ties, microlithography facilities, scanning probe fa-  
16 cilities and related instrumentation science.

17 (4) COLLABORATION.—The Secretary shall en-  
18 courage collaborations among universities, labora-  
19 tories and industry at facilities under this sub-  
20 section. At least one facility under this subsection  
21 shall have a specific mission of technology transfer  
22 to other institutions and to industry.

23 (d) AUTHORIZATION OF APPROPRIATIONS.—

24 (1) TOTAL AUTHORIZATION.—From amounts  
25 authorized to be appropriated under section 1251(b),

1 the following amounts are authorized for activities  
2 under this section—

- 3 (A) \$270,000,000 for fiscal year 2003;
- 4 (B) \$290,000,000 for fiscal year 2004;
- 5 (C) \$310,000,000 for fiscal year 2005; and
- 6 (D) \$330,000,000 for fiscal year 2006.

7 (2) NANOSCIENCE AND NANOENGINEERING RE-  
8 SEARCH CENTERS AND MAJOR INSTRUMENTATION.—  
9 Of the amounts under paragraph (1), the following  
10 amounts are authorized to carry out subsection  
11 (c)—

- 12 (A) \$135,000,000 for fiscal year 2003;
- 13 (B) \$150,000,000 for fiscal year 2004;
- 14 (C) \$120,000,000 for fiscal year 2005; and
- 15 (D) \$100,000,000 for fiscal year 2006.

16 **SEC. 1253. ADVANCED SCIENTIFIC COMPUTING FOR EN-**  
17 **ERGY MISSIONS.**

18 (a) ESTABLISHMENT.—The Secretary, acting  
19 through the Office of Science, shall support a program to  
20 advance the Nation’s computing capability across a diverse  
21 set of grand challenge computationally based science prob-  
22 lems related to departmental missions.

23 (b) DUTIES OF THE OFFICE OF SCIENCE.—In car-  
24 rying out the program under this section, the Office of  
25 Science shall—

1           (1) advance basic science through computation  
2           by developing software to solve grand challenge  
3           science problems on new generations of computing  
4           platforms,

5           (2) enhance the foundations for scientific com-  
6           puting by developing the basic mathematical and  
7           computing systems software needed to take full ad-  
8           vantage of the computing capabilities of computers  
9           with peak speeds of 100 teraflops or more, some of  
10          which may be unique to the scientific problem of in-  
11          terest,

12          (3) enhance national collaboratory and net-  
13          working capabilities by developing software to inte-  
14          grate geographically separated researchers into ef-  
15          fective research teams and to facilitate access to and  
16          movement and analysis of large (petabyte) data sets,  
17          and

18          (4) maintain a robust scientific computing  
19          hardware infrastructure to ensure that the com-  
20          puting resources needed to address DOE missions  
21          are available; explore new computing approaches and  
22          technologies that promise to advance scientific com-  
23          puting.

1           (c) HIGH-PERFORMANCE COMPUTING ACT PRO-  
2 GRAM.—Section 203(a) of the High-Performance Com-  
3 puting Act of 1991 (15 U.S.C. 5523(a)) is amended—

4           (1) in paragraph (3), by striking “and”;

5           (2) in paragraph (4), by striking the period and  
6 inserting “; and”; and

7           (3) by adding after paragraph (4) the following:

8           “(5) conduct an integrated program of research, de-  
9 velopment, and provision of facilities to develop and  
10 deploy to scientific and technical users the high-per-  
11 formance computing and collaboration tools needed  
12 to fulfill the statutory missions of the Department of  
13 Energy in conducting basic and applied energy re-  
14 search.”.

15           (d) COORDINATION WITH THE DOE NATIONAL NU-  
16 CLEAR SECURITY AGENCY ACCELERATED STRATEGIC  
17 COMPUTING INITIATIVE AND OTHER NATIONAL COM-  
18 PUTING PROGRAMS.—The Secretary shall ensure that this  
19 program, to the extent feasible, is integrated and con-  
20 sistent with—

21           (1) the Accelerated Strategic Computing Initia-  
22 tive of the National Nuclear Security Agency; and

23           (2) other national efforts related to advanced  
24 scientific computing for science and engineering.



1 (e) AUTHORIZATION OF APPROPRIATIONS.—From  
2 amounts authorized under section 1251(b), the following  
3 amounts are authorized for activities under this section—

4 (1) \$285,000,000 for fiscal year 2003;

5 (2) \$300,000,000 for fiscal year 2004;

6 (3) \$310,000,000 for fiscal year 2005; and

7 (4) \$320,000,000 for fiscal year 2006.

8 **SEC. 1254. FUSION ENERGY SCIENCES PROGRAM AND**  
9 **PLANNING.**

10 (a) OVERALL PLAN FOR FUSION ENERGY SCIENCES  
11 PROGRAM.—

12 (1) IN GENERAL.—Not later than 6 months  
13 after the date of enactment of this subtitle, the Sec-  
14 retary, after consultation with the Fusion Energy  
15 Sciences Advisory Committee, shall develop and  
16 transmit to the Congress a plan to ensure a strong  
17 scientific base for the Fusion Energy Sciences Pro-  
18 gram within the Office of Science and to enable the  
19 experiments described in subsections (b) and (c).

20 (2) OBJECTIVES OF PLAN.—The plan under  
21 this subsection shall include as its objectives—

22 (A) to ensure that existing fusion research  
23 facilities and equipment are more fully utilized  
24 with appropriate measurements and control  
25 tools;

1 (B) to ensure a strengthened fusion science  
2 theory and computational base;

3 (C) to encourage and ensure that the selec-  
4 tion of and funding for new magnetic and iner-  
5 tial fusion research facilities is based on sci-  
6 entific innovation and cost effectiveness;

7 (D) to improve the communication of sci-  
8 entific results and methods between the fusion  
9 science community and the wider scientific com-  
10 munity;

11 (E) to ensure that adequate support is  
12 provided to optimize the design of the magnetic  
13 fusion burning plasma experiments referred to  
14 in subsections (b) and (c); and

15 (F) to ensure that inertial confinement fu-  
16 sion facilities are utilized to the extent prac-  
17 ticable for the purpose of inertial fusion energy  
18 research and development.

19 (b) PLAN FOR UNITED STATES FUSION EXPERI-  
20 MENT.—

21 (1) IN GENERAL.—The Secretary, after con-  
22 sultation with the Fusion Energy Sciences Advisory  
23 Committee, shall develop a plan for construction in  
24 the United States of a magnetic fusion burning plas-  
25 ma experiment for the purpose of accelerating sci-

1       entific understanding of fusion plasmas. The Sec-  
2       retary shall request a review of the plan by the Na-  
3       tional Academy of Sciences and shall transmit the  
4       plan and the review to the Congress by July 1,  
5       2004.

6               (2) REQUIREMENTS OF PLAN.—The plan de-  
7       scribed in paragraph (1) shall—

8                   (A) address key burning plasma physics  
9       issues; and

10                  (B) include specific information on the sci-  
11       entific capabilities of the proposed experiment,  
12       the relevance of these capabilities to the goal of  
13       practical fusion energy, and the overall design  
14       of the experiment including its estimated cost  
15       and potential construction sites.

16       (c) PLAN FOR PARTICIPATION IN AN INTERNATIONAL  
17       EXPERIMENT.—In addition to the plan described in sub-  
18       section (b), the Secretary, after consultation with the Fu-  
19       sion Energy Sciences Advisory Committee, may also de-  
20       velop a plan for United States participation in an inter-  
21       national burning plasma experiment for the same purpose,  
22       whose construction is found by the Secretary to be highly  
23       likely and where United States participation is cost-effec-  
24       tive relative to the cost and scientific benefits of a domes-  
25       tic experiment described in subsection (b). If the Secretary

1 elects to develop a plan under this subsection, he shall in-  
2 clude the information described in subsection (b)(2), and  
3 an estimate of the cost of United States participation in  
4 such an international experiment. The Secretary shall re-  
5 quest a review by the National Academy of Sciences of  
6 a plan developed under this subsection, and shall transmit  
7 the plan and the review to the Congress no later than July  
8 1, 2004.

9 (d) AUTHORIZATION FOR RESEARCH AND DEVELOP-  
10 MENT.—The Secretary, through the Office of Science,  
11 may conduct any research and development necessary to  
12 fully develop the plans described in this section.

13 (e) AUTHORIZATION OF APPROPRIATIONS.—From  
14 amounts authorized under section 1251(b) for fiscal year  
15 2003, \$335,000,000 are authorized for fiscal year 2003  
16 for activities under this section and for activities of the  
17 Fusion Energy Sciences Program.

18 **Subtitle F—Energy, Safety, and**  
19 **Environmental Protection**

20 **SEC. 1261. CRITICAL ENERGY INFRASTRUCTURE PROTEC-**  
21 **TION RESEARCH AND DEVELOPMENT.**

22 (a) IN GENERAL.—The Secretary shall carry out a  
23 research, development, demonstration and technology de-  
24 ployment program, in partnership with industry, on crit-  
25 ical energy infrastructure protection, consistent with the

1 roles and missions outlined for the Secretary in Presi-  
2 dential Decision Directive 63, entitled “Critical Infra-  
3 structure Protection”. The program shall have the fol-  
4 lowing goals:

5           (1) Increase the understanding of physical and  
6 information system disruptions to the energy infra-  
7 structure that could result in cascading or wide-  
8 spread regional outages.

9           (2) Develop energy infrastructure assurance  
10 “best practices” through vulnerability and risk as-  
11 sessments.

12           (3) Protect against, mitigate the effect of, and  
13 improve the ability to recover from disruptive inci-  
14 dents within the energy infrastructure.

15       (b) PROGRAM SCOPE.—The program under sub-  
16 section (a) shall include research, development, deploy-  
17 ment, technology demonstration for—

18           (1) analysis of energy infrastructure inter-  
19 dependencies to quantify the impacts of system  
20 vulnerabilities in relation to each other;

21           (2) probabilistic risk assessment of the energy  
22 infrastructure to account for unconventional and ter-  
23 rorist threats;

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

4           (4) integrated multi-sensor, warning and miti-  
5           gation technologies to detect, integrate, and localize  
6           events affecting the energy infrastructure including  
7           real time control to permit the reconfiguration of en-  
8           ergy delivery systems.

9           (c) REGIONAL COORDINATION.—The program under  
10          this section shall cooperate with Departmental activities  
11          to promote regional coordination under section 102 of this  
12          Act, to ensure that the technologies and assessments de-  
13          veloped by the program are transferred in a timely manner  
14          to State and local authorities, and to the energy indus-  
15          tries.

16          (d) COORDINATION WITH INDUSTRY RESEARCH OR-  
17          GANIZATIONS.—The Secretary may enter into grants, con-  
18          tracts, and cooperative agreements with industry research  
19          organizations to facilitate industry participation in re-  
20          search under this section and to fulfill applicable cost-  
21          sharing requirements.

22          (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
23          authorized to be appropriated to the Secretary to carry  
24          out this section—

25                 (1) \$25,000,000 for fiscal year 2003;

- 1 (2) \$26,000,000 for fiscal year 2004;
- 2 (3) \$27,000,000 for fiscal year 2005; and
- 3 (4) \$28,000,000 for fiscal year 2006.

4 (f) **CRITICAL ENERGY INFRASTRUCTURE FACILITY**  
5 **DEFINED.**—For purposes of this section, the term “crit-  
6 ical energy infrastructure facility” means a physical or  
7 cyber-based system or service for the generation, trans-  
8 mission or distribution of electrical energy, or the produc-  
9 tion, refining, transportation, or storage of petroleum, nat-  
10 ural gas, or petroleum product, the incapacity or destruc-  
11 tion of which would have a debilitating impact on the de-  
12 fense or economic security of the United States. The term  
13 shall not include a facility that is licensed by the Nuclear  
14 Regulatory Commission under section 103 or 104b of the  
15 Atomic Energy Act of 1954 (42 U.S.C. 2133 and  
16 2134(b)).

17 **SEC. 1262. PIPELINE INTEGRITY, SAFETY, AND RELIABILITY**  
18 **RESEARCH AND DEVELOPMENT.**

19 (a) **IN GENERAL.**—The Secretary of Transportation,  
20 in coordination with the Secretary of Energy, shall develop  
21 and implement an accelerated cooperative program of re-  
22 search and development to ensure the integrity of natural  
23 gas and hazardous liquid pipelines. This research and de-  
24 velopment program shall include materials inspection tech-

1 niques, risk assessment methodology, and information sys-  
2 tems surety.

3 (b) PURPOSE.—The purpose of the cooperative re-  
4 search program shall be to promote research and develop-  
5 ment to—

6 (1) ensure long-term safety, reliability and serv-  
7 ice life for existing pipelines;

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

11 (3) develop inspection techniques for pipelines  
12 that cannot accommodate the internal inspection de-  
13 vices available on the date of enactment;

14 (4) develop innovative techniques to measure  
15 the structural integrity of pipelines to prevent pipe-  
16 line failures;

17 (5) develop improved materials and coatings for  
18 use in pipelines;

19 (6) improve the capability, reliability, and prac-  
20 ticality of external leak detection devices;

21 (7) identify underground environments that  
22 might lead to shortened service life;

23 (8) enhance safety in pipeline siting and land  
24 use;



1           (9) minimize the environmental impact of pipe-  
2 lines;

3           (10) demonstrate technologies that improve  
4 pipeline safety, reliability, and integrity;

5           (11) provide risk assessment tools for opti-  
6 mizing risk mitigation strategies; and

7           (12) provide highly secure information systems  
8 for controlling the operation of pipelines.

9       (c) AREAS.—In carrying out this section, the Sec-  
10 retary of Transportation, in coordination with the Sec-  
11 retary of Energy, shall consider research and development  
12 on natural gas, crude oil, and petroleum product pipelines  
13 for—

14           (1) early crack, defect, and damage detection,  
15 including real-time damage monitoring;

16           (2) automated internal pipeline inspection sen-  
17 sor systems;

18           (3) land use guidance and set back manage-  
19 ment along pipeline rights-of-way for communities;

20           (4) internal corrosion control;

21           (5) corrosion-resistant coatings;

22           (6) improved cathodic protection;

23           (7) inspection techniques where internal inspec-  
24 tion is not feasible, including measurement of struc-  
25 tural integrity;

1           (8) external leak detection, including portable  
2           real-time video imaging technology, and the advance-  
3           ment of computerized control center leak detection  
4           systems utilizing real-time remote field data input;

5           (9) longer life, high strength, non-corrosive  
6           pipeline materials;

7           (10) assessing the remaining strength of exist-  
8           ing pipes;

9           (11) risk and reliability analysis models, to be  
10          used to identify safety improvements that could be  
11          realized in the near term resulting from analysis of  
12          data obtained from a pipeline performance tracking  
13          initiative;

14          (12) identification, monitoring, and prevention  
15          of outside force damage, including satellite surveil-  
16          lance; and

17          (13) any other areas necessary to ensuring the  
18          public safety and protecting the environment.

19          (d) RESEARCH AND DEVELOPMENT PROGRAM  
20          PLAN.—Within 240 days after the date of enactment of  
21          this section, the Secretary of Transportation, in coordina-  
22          tion with the Secretary of Energy and the Pipeline Integ-  
23          rity Technical Advisory Committee, shall prepare and sub-  
24          mit to the Congress a five-year program plan to guide ac-  
25          tivities under this section. In preparing the program plan,

1 the Secretary shall consult with appropriate representa-  
2 tives of the natural gas, crude oil, and petroleum product  
3 pipeline industries to select and prioritize appropriate  
4 project proposals. The Secretary may also seek the advice  
5 of utilities, manufacturers, institutions of higher learning,  
6 Federal agencies, the pipeline research institutions, na-  
7 tional laboratories, State pipeline safety officials, environ-  
8 mental organizations, pipeline safety advocates, and pro-  
9 fessional and technical societies.

10 (e) IMPLEMENTATION.—The Secretary of Transpor-  
11 tation shall have primary responsibility for ensuring the  
12 five-year plan provided for in subsection (d) is imple-  
13 mented as intended by this section. In carrying out the  
14 research, development, and demonstration activities under  
15 this section, the Secretary of Transportation and the Sec-  
16 retary of Energy may use, to the extent authorized under  
17 applicable provisions of law, contracts, cooperative agree-  
18 ments, cooperative research and development agreements  
19 under the Stevenson-Wydler Technology Innovation Act of  
20 1980 (15 U.S.C. 3701 et seq.), grants, joint ventures,  
21 other transactions, and any other form of agreement avail-  
22 able to the Secretary consistent with the recommendations  
23 of the Advisory Committee.

24 (f) REPORTS TO CONGRESS.—The Secretary of  
25 Transportation shall report to the Congress annually as

1 to the status and results to date of the implementation  
2 of the research and development program plan. The report  
3 shall include the activities of the Departments of Trans-  
4 portation and Energy, the national laboratories, univer-  
5 sities, and any other research organizations, including in-  
6 dustry research organizations.

7 (g) PIPELINE INTEGRITY TECHNICAL ADVISORY  
8 COMMITTEE.—

9 (1) ESTABLISHMENT.—The Secretary of Trans-  
10 portation shall enter into appropriate arrangements  
11 with the National Academy of Sciences to establish  
12 and manage the Pipeline Integrity Technical Advi-  
13 sory Committee for the purpose of advising the Sec-  
14 retary of Transportation and the Secretary of En-  
15 ergy on the development and implementation of the  
16 research and development program plan under sub-  
17 section (d). The Advisory Committee shall have an  
18 ongoing role in evaluating the progress and results  
19 of the research, development, and demonstration  
20 carried out under this section.

21 (2) MEMBERSHIP.—The National Academy of  
22 Sciences shall appoint the members of the Pipeline  
23 Integrity Technical Advisory Committee after con-  
24 sultation with the Secretary of Transportation and  
25 the Secretary of Energy. Members appointed to the



1 ployment program to improve methods for environmental  
2 restoration of groundwater contaminated by energy activi-  
3 ties, including oil and gas production, surface and under-  
4 ground mining of coal, and in-situ extraction of energy  
5 resources.

6 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
7 are authorized to be appropriated to the Secretary to carry  
8 out this section \$10,000,000 for each of fiscal years 2003  
9 through 2006.

10 **TITLE XIII—CLIMATE CHANGE-**  
11 **RELATED RESEARCH AND DE-**  
12 **VELOPMENT**

13 **Subtitle A—Department of Energy**  
14 **Programs**

15 **SEC. 1301. PROGRAM GOALS.**

16 The goals of the research, development, demonstra-  
17 tion, and technology deployment programs under this sub-  
18 title shall be to—

19 (1) provide a sound scientific understanding of  
20 the human and natural forces that influence the  
21 Earth's climate system, particularly those forces re-  
22 lated to energy production and use;

23 (2) help mitigate climate change from human  
24 activities related to energy production and use; and

1           (3) reduce, avoid, or sequester emissions of  
2           greenhouse gases in furtherance of the goals of the  
3           United National Framework Convention on Climate  
4           Change, done at New York on May 9, 1992, in a  
5           manner that does not result in serious harm to the  
6           U.S. economy.

7   **SEC. 1302. DEPARTMENT OF ENERGY GLOBAL CHANGE**  
8                           **SCIENCE RESEARCH.**

9           (a) PROGRAM DIRECTION.—The Secretary, acting  
10          through the Office of Science, shall conduct a comprehen-  
11          sive research program to understand and address the ef-  
12          fects of energy production and use on the global climate  
13          system.

14          (b) PROGRAM ELEMENTS.—

15                  (1) CLIMATE MODELING.—The Secretary  
16          shall—

17                          (A) conduct observational and analytical  
18                          research to acquire and interpret the data need-  
19                          ed to describe the radiation balance from the  
20                          surface of the Earth to the top of the atmos-  
21                          phere;

22                          (B) determine the factors responsible for  
23                          the Earth's radiation balance and incorporate  
24                          improved understanding of such factors in cli-  
25                          mate models;

1 (C) improve the treatment of aerosols and  
2 clouds in climate models;

3 (D) reduce the uncertainty in decade-to-  
4 century model-based projections of climate  
5 change; and

6 (E) increase the availability and utility of  
7 climate change simulations to researchers and  
8 policy makers interested in assessing the rela-  
9 tionship between energy and climate change.

10 (2) CARBON CYCLE.—The Secretary shall—

11 (A) carry out field research and modeling  
12 activities—

13 (i) to understand and document the  
14 net exchange of carbon dioxide between  
15 major terrestrial ecosystems and the at-  
16 mosphere; or

17 (ii) to evaluate the potential of pro-  
18 posed methods of carbon sequestration;

19 (B) develop and test carbon cycle models;  
20 and

21 (C) acquire data and develop and test  
22 models to simulate and predict the transport,  
23 transformation, and fate of energy-related emis-  
24 sions in the atmosphere.



1           (3) ECOLOGICAL PROCESSES.—The Secretary  
2 shall carry out long-term experiments of the re-  
3 sponse of intact terrestrial ecosystems to—

4                   (A) alterations in climate and atmospheric  
5 composition; or

6                   (B) land-use changes that affect ecosystem  
7 extent and function.

8           (4) INTEGRATED ASSESSMENT.—The Secretary  
9 shall develop and improve methods and tools for in-  
10 tegrated analyses of the climate change system from  
11 emissions of aerosols and greenhouse gases to the  
12 consequences of these emissions on climate and the  
13 resulting effects of human-induced climate change  
14 on economic and social systems, with emphasis on  
15 critical gaps in integrated assessment modeling, in-  
16 cluding modeling of technology innovation and diffu-  
17 sion and the development of metrics of economic  
18 costs of climate change and policies for mitigating or  
19 adapting to climate change.

20           (c) AUTHORIZATION OF APPROPRIATIONS.—From  
21 amounts authorized under section 1440(c), there are au-  
22 thorized to be appropriated to the Secretary for carrying  
23 out activities under this section—

24                   (1) \$150,000,000 for fiscal year 2003;

25                   (2) \$175,000,000 for fiscal year 2004;

1           (3) \$200,000,000 for fiscal year 2005; and

2           (4) \$230,000,000 for fiscal year 2006.

3           (d) LIMITATION ON FUNDS.—Funds authorized to be  
4 appropriated under this section shall not be used for the  
5 development, demonstration, or deployment of technology  
6 to reduce, avoid, or sequester greenhouse gas emissions.

7 **SEC. 1303. AMENDMENTS TO THE FEDERAL NONNUCLEAR**  
8 **RESEARCH AND DEVELOPMENT ACT OF 1974.**

9           Section 6 of the Federal Nonnuclear Energy Re-  
10 search and Development Act of 1974 (42 U.S.C. 5905)  
11 is amended—

12           (1) in subsection (a)—

13                 (A) in paragraph (2), by striking “and” at  
14 the end;

15                 (B) in paragraph (3) by striking the period  
16 at the end and inserting “, and”; and

17                 (C) by adding at the end the following:

18                     “(4) solutions to the effective management of  
19 greenhouse gas emissions in the long term by the de-  
20 velopment of technologies and practices designed  
21 to—

22                         “(A) reduce or avoid anthropogenic emis-  
23 sions of greenhouse gases;

24                         “(B) remove and sequester greenhouse  
25 gases from emissions streams; and

1           “(C) remove and sequester greenhouse  
2 gases from the atmosphere.”; and

3 (2) in subsection (b)—

4           (A) in paragraph (2), by striking “sub-  
5 section (a)(1) through (3)” and inserting  
6 “paragraphs (1) through (4) of subsection (a)”;  
7 and

8           (B) in paragraph (3)—

9           (i) in subparagraph (R), by striking  
10 “and” at the end;

11           (ii) in subparagraph (S), by striking  
12 the period at the end and inserting “;  
13 and”; and

14           (iii) by adding at the end the fol-  
15 lowing:

16           “(T) to pursue a long-term climate tech-  
17 nology strategy designed to demonstrate a vari-  
18 ety of technologies by which stabilization of  
19 greenhouse gases might be best achieved, in-  
20 cluding accelerated research, development, dem-  
21 onstration and deployment of—

22           “(i) renewable energy systems;

23           “(ii) advanced fossil energy tech-  
24 nology;

1           “(iii) advanced nuclear power plant  
2           design;

3           “(iv) fuel cell technology for residen-  
4           tial, industrial and transportation applica-  
5           tions;

6           “(v) carbon sequestration practices  
7           and technologies, including agricultural  
8           and forestry practices that store and se-  
9           quester carbon;

10           “(vi) efficient electrical generation,  
11           transmission and distribution technologies;  
12           and

13           “(vii) efficient end use energy tech-  
14           nologies.”.

## 15           **Subtitle B—Department of** 16           **Agriculture Programs**

### 17   **SEC. 1311. CARBON SEQUESTRATION BASIC AND APPLIED** 18           **RESEARCH.**

19           (a) BASIC RESEARCH.—

20           (1) IN GENERAL.—The Secretary of Agriculture  
21           shall carry out research in the areas of soil science  
22           that promote understanding of—

23           (A) the net sequestration of organic carbon  
24           in soil; and

1 (B) net emissions of other greenhouse  
2 gases from agriculture.

3 (2) AGRICULTURAL RESEARCH SERVICE.—The  
4 Secretary of Agriculture, acting through the Agricul-  
5 tural Research Service, shall collaborate with other  
6 Federal agencies in developing data and carrying out  
7 research addressing soil carbon fluxes (losses and  
8 gains) and net emissions of methane and nitrous  
9 oxide from cultivation and animal management ac-  
10 tivities.

11 (3) COOPERATIVE STATE RESEARCH, EXTEN-  
12 SION, AND EDUCATION SERVICE.—

13 (A) IN GENERAL.—The Secretary of Agri-  
14 culture, acting through the Cooperative State  
15 Research, Extension, and Education Service,  
16 shall establish a competitive grant program to  
17 carry out research on the matters described in  
18 paragraph (1) in land grant universities and  
19 other research institutions.

20 (B) CONSULTATION ON RESEARCH TOP-  
21 ICS.—Before issuing a request for proposals for  
22 basic research under paragraph (1), the Coop-  
23 erative State Research, Extension, and Edu-  
24 cation Service shall consult with the Agricul-  
25 tural Research Service to ensure that proposed

1 research areas are complementary with and do  
2 not duplicate research projects underway at the  
3 Agricultural Research Service or other Federal  
4 agencies.

5 (b) APPLIED RESEARCH.—

6 (1) IN GENERAL.—The Secretary of Agriculture  
7 shall carry out applied research in the areas of soil  
8 science, agronomy, agricultural economics and other  
9 agricultural sciences to—

10 (A) promote understanding of—

11 (i) how agricultural and forestry prac-  
12 tices affect the sequestration of organic  
13 and inorganic carbon in soil and net emis-  
14 sions of other greenhouse gases;

15 (ii) how changes in soil carbon pools  
16 are cost-effectively measured, monitored,  
17 and verified; and

18 (iii) how public programs and private  
19 market approaches can be devised to incor-  
20 porate carbon sequestration in a broader  
21 societal greenhouse gas emission reduction  
22 effort;

23 (B) develop methods for establishing base-  
24 lines for measuring the quantities of carbon and  
25 other greenhouse gases sequestered; and

1 (C) evaluate leakage and performance  
2 issues.

3 (2) REQUIREMENTS.—To the maximum extent  
4 practicable, applied research under paragraph (1)  
5 shall—

6 (A) draw on existing technologies and  
7 methods; and

8 (B) strive to provide methodologies that  
9 are accessible to a nontechnical audience.

10 (3) MINIMIZATION OF ADVERSE ENVIRON-  
11 MENTAL IMPACTS.—All applied research under para-  
12 graph (1) shall be conducted with an emphasis on  
13 minimizing adverse environmental impacts.

14 (4) NATURAL RESOURCES CONSERVATION  
15 SERVICE.—The Secretary of Agriculture, acting  
16 through the Natural Resources Conservation Service,  
17 shall collaborate with other Federal agencies, includ-  
18 ing the National Institute of Standards and Tech-  
19 nology, in developing new measuring techniques and  
20 equipment or adapting existing techniques and  
21 equipment to enable cost-effective and accurate mon-  
22 itoring and verification, for a wide range of agricul-  
23 tural and forestry practices, of—

24 (A) changes in soil carbon content in agri-  
25 cultural soils, plants, and trees; and

1 (B) net emissions of other greenhouse  
2 gases.

3 (5) COOPERATIVE STATE RESEARCH, EXTEN-  
4 SION, AND EDUCATION SERVICE.—

5 (A) IN GENERAL.—The Secretary of Agri-  
6 culture, acting through the Cooperative State  
7 Research, Extension, and Education Service,  
8 shall establish a competitive grant program to  
9 encourage research on the matters described in  
10 paragraph (1) by land grant universities and  
11 other research institutions.

12 (B) CONSULTATION ON RESEARCH TOP-  
13 ICS.—Before issuing a request for proposals for  
14 applied research under paragraph (1), the Co-  
15 operative State Research, Extension, and Edu-  
16 cation Service shall consult with the National  
17 Resources Conservation Service and the Agri-  
18 cultural Research Service to ensure that pro-  
19 posed research areas are complementary with  
20 and do not duplicate research projects under-  
21 way at the Agricultural Research Service or  
22 other Federal agencies.

23 (c) RESEARCH CONSORTIA.—

24 (1) IN GENERAL.—The Secretary of Agriculture  
25 may designate not more than 2 research consortia to



1 carry out research projects under this section, with  
2 the requirement that the consortia propose to con-  
3 duct basic research under subsection (a) and applied  
4 research under subsection (b).

5 (2) SELECTION.—The consortia shall be se-  
6 lected in a competitive manner by the Cooperative  
7 State Research, Extension, and Education Service.

8 (3) ELIGIBLE CONSORTIUM PARTICIPANTS.—  
9 Entities eligible to participate in a consortium  
10 include—

11 (A) land grant colleges and universities;

12 (B) private research institutions;

13 (C) State geological surveys;

14 (D) agencies of the Department of Agri-  
15 culture;

16 (E) research centers of the National Aero-  
17 nautics and Space Administration and the De-  
18 partment of Energy;

19 (F) other Federal agencies;

20 (G) representatives of agricultural busi-  
21 nesses and organizations with demonstrated ex-  
22 pertise in these areas; and

23 (H) representatives of the private sector  
24 with demonstrated expertise in these areas.

1           (4) RESERVATION OF FUNDING.—If the Sec-  
2           retary of Agriculture designates 1 or 2 consortia, the  
3           Secretary of Agriculture shall reserve for research  
4           projects carried out by the consortium or consortia  
5           not more than 25 percent of the amounts made  
6           available to carry out this section for a fiscal year.

7           (d) STANDARDS OF PRECISION.—

8           (1) CONFERENCE.—Not later than 3 years  
9           after the date of enactment of this subtitle, the Sec-  
10          retary of Agriculture, acting through the Agricul-  
11          tural Research Service and in consultation with the  
12          Natural Resources Conservation Service, shall con-  
13          vene a conference of key scientific experts on carbon  
14          sequestration and measurement techniques from var-  
15          ious sectors (including the government, academic,  
16          and private sectors) to—

17                   (A) discuss benchmark standards of preci-  
18                   sion for measuring soil carbon content and net  
19                   emissions of other greenhouse gases;

20                   (B) designate packages of measurement  
21                   techniques and modeling approaches to achieve  
22                   a level of precision agreed on by the partici-  
23                   pants in the conference; and

24                   (C) evaluate results of analyses on base-  
25                   line, permanence, and leakage issues.

1           (2) DEVELOPMENT OF BENCHMARK STAND-  
2       ARDS.—

3           (A) IN GENERAL.—The Secretary shall de-  
4       velop benchmark standards for measuring the  
5       carbon content of soils and plants (including  
6       trees) based on—

7                   (i) information from the conference  
8       under paragraph (1);

9                   (ii) research conducted under this sec-  
10      tion; and

11                   (iii) other information available to the  
12      Secretary.

13           (B) OPPORTUNITY FOR PUBLIC COM-  
14      MENT.—The Secretary shall provide an oppor-  
15      tunity for the public to comment on benchmark  
16      standards developed under subparagraph (A).

17           (3) REPORT.—Not later than 180 days after  
18      the conclusion of the conference under paragraph  
19      (1), the Secretary of Agriculture shall submit to the  
20      Committee on Agriculture of the House of Rep-  
21      resentatives and the Committee on Agriculture, Nu-  
22      trition, and Forestry of the Senate a report on the  
23      results of the conference.

24           (e) AUTHORIZATION OF APPROPRIATIONS.—

1           (1) IN GENERAL.—There are authorized to be  
2           appropriated to carry out this section \$25,000,000  
3           for each of fiscal years 2003 through 2006.

4           (2) ALLOCATION.—Of the amounts made avail-  
5           able to carry out this section for a fiscal year, at  
6           least 50 percent shall be allocated for competitive  
7           grants by the Cooperative State Research, Exten-  
8           sion, and Education Service.

9   **SEC. 1312. CARBON SEQUESTRATION DEMONSTRATION**  
10                           **PROJECTS AND OUTREACH.**

11           (a) DEMONSTRATION PROJECTS.—

12                   (1) DEVELOPMENT OF MONITORING PRO-  
13                   GRAMS.—

14                           (A) IN GENERAL.—The Secretary of Agri-  
15                           culture, acting through the Natural Resources  
16                           Conservation Service and in cooperation with  
17                           local extension agents, experts from land grant  
18                           universities, and other local agricultural or con-  
19                           servation organizations, shall develop user-  
20                           friendly, programs that combine measurement  
21                           tools and modeling techniques into integrated  
22                           packages to monitor the carbon sequestering  
23                           benefits of conservation practices and net  
24                           changes in greenhouse gas emissions.

1 (B) BENCHMARK LEVELS OF PRECISION.—

2 The programs developed under subparagraph  
3 (A) shall strive to achieve benchmark levels of  
4 precision in measurement in a cost-effective  
5 manner.

6 (2) PROJECTS.—

7 (A) IN GENERAL.—The Secretary of Agri-  
8 culture, acting through the Farm Service Agen-  
9 cy, shall establish a program under which  
10 projects use the monitoring programs developed  
11 under paragraph (1) to demonstrate the feasi-  
12 bility of methods of measuring, verifying, and  
13 monitoring—

14 (i) changes in organic carbon content  
15 and other carbon pools in agricultural  
16 soils, plants, and trees; and

17 (ii) net changes in emissions of other  
18 greenhouse gases.

19 (B) EVALUATION OF IMPLICATIONS.—The  
20 projects under subparagraph (A) shall include  
21 evaluation of the implications for reassessed  
22 baselines, carbon or other greenhouse gas leak-  
23 age, and permanence of sequestration.

24 (C) SUBMISSION OF PROPOSALS.—Pro-  
25 posals for projects under subparagraph (A)

1 shall be submitted by the appropriate agency of  
2 each State, in cooperation with interested local  
3 jurisdictions and State agricultural and con-  
4 servation organizations.

5 (D) LIMITATION.—Not more than 10  
6 projects under subparagraph (A) may be ap-  
7 proved in conjunction with applied research  
8 projects under section 1331(b) until benchmark  
9 measurement and assessment standards are es-  
10 tablished under section 1331(d).

11 (b) OUTREACH.—

12 (1) IN GENERAL.—The Cooperative State Re-  
13 search, Extension, and Education Service shall wide-  
14 ly disseminate information about the economic and  
15 environmental benefits that can be generated by  
16 adoption of conservation practices (including benefits  
17 from increased sequestration of carbon and reduced  
18 emission of other greenhouse gases).

19 (2) PROJECT RESULTS.—The Cooperative State  
20 Research, Extension, and Education Service shall in-  
21 form farmers, ranchers, and State agricultural and  
22 energy offices in each State of—

23 (A) the results of demonstration projects  
24 under subsection (a)(2) in the State; and

1 (B) the ways in which the methods dem-  
2 onstrated in the projects might be applicable to  
3 the operations of those farmers and ranchers.

4 (3) POLICY OUTREACH.—On a periodic basis,  
5 the Cooperative State Research, Extension, and  
6 Education Service shall disseminate information on  
7 the policy nexus between global climate change miti-  
8 gation strategies and agriculture, so that farmers  
9 and ranchers may better understand the global im-  
10 plications of the activities of farmers and ranchers.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—

12 (1) IN GENERAL.—There are authorized to be  
13 appropriated to carry out this section \$10,000,000  
14 for each of fiscal years 2003 through 2006.

15 (2) ALLOCATION.—Of the amounts made avail-  
16 able to carry out this section for a fiscal year, at  
17 least 50 percent shall be allocated for demonstration  
18 projects under subsection (a)(2).

19 **Subtitle C—Clean Energy**  
20 **Technology Exports Program**

21 **SEC. 1321. CLEAN ENERGY TECHNOLOGY EXPORTS PRO-**  
22 **GRAM.**

23 (a) DEFINITIONS.—In this section:

24 (1) CLEAN ENERGY TECHNOLOGY.—The term  
25 “clean energy technology” means an energy supply

1 or end-use technology that, over its lifecycle and  
2 compared to a similar technology already in commer-  
3 cial use in developing countries, countries in transi-  
4 tion, and other partner countries—

5 (A) emits substantially lower levels of pol-  
6 lutants or greenhouse gases; and

7 (B) may generate substantially smaller or  
8 less toxic volumes of solid or liquid waste.

9 (2) INTERAGENCY WORKING GROUP.—The term  
10 “interagency working group” means the Interagency  
11 Working Group on Clean Energy Technology Ex-  
12 ports established under subsection (b).

13 (b) INTERAGENCY WORKING GROUP.—

14 (1) ESTABLISHMENT.—Not later than 90 days  
15 after the date of enactment of this section, the Sec-  
16 retary of Energy, the Secretary of Commerce, and  
17 the Administrator of the U.S. Agency for Inter-  
18 national Development shall jointly establish a Inter-  
19 agency Working Group on Clean Energy Technology  
20 Exports. The interagency working group will focus  
21 on opening and expanding energy markets and  
22 transferring clean energy technology to the devel-  
23 oping countries, countries in transition, and other  
24 partner countries that are expected to experience,  
25 over the next 20 years, the most significant growth



1 in energy production and associated greenhouse gas  
2 emissions, including through technology transfer  
3 programs under the Framework Convention on Cli-  
4 mate Change, other international agreements, and  
5 relevant Federal efforts.

6 (2) MEMBERSHIP.—The interagency working  
7 group shall be jointly chaired by representatives ap-  
8 pointed by the agency heads under paragraph (1)  
9 and shall also include representatives from the De-  
10 partment of State, the Department of Treasury, the  
11 Environmental Protection Agency, the Export-Im-  
12 port Bank, the Overseas Private Investment Cor-  
13 poration, the Trade and Development Agency, and  
14 other federal agencies as deemed appropriate by all  
15 three agency heads under paragraph (1).

16 (3) DUTIES.—The interagency working group  
17 shall—

18 (A) analyze technology, policy, and market  
19 opportunities for international development,  
20 demonstration, and deployment of clean energy  
21 technology;

22 (B) investigate issues associated with  
23 building capacity to deploy clean energy tech-  
24 nology in developing countries, countries in

1 transition, and other partner countries,  
2 including—

3 (i) energy-sector reform;

4 (ii) creation of open, transparent, and  
5 competitive markets for energy tech-  
6 nologies;

7 (iii) availability of trained personnel  
8 to deploy and maintain the technology; and

9 (iv) demonstration and cost-buydown  
10 mechanisms to promote first adoption of  
11 the technology;

12 (C) examine relevant trade, tax, inter-  
13 national, and other policy issues to assess what  
14 policies would help open markets and improve  
15 U.S. clean energy technology exports in support  
16 of the following areas—

17 (i) enhancing energy innovation and  
18 cooperation, including energy sector and  
19 market reform, capacity building, and fi-  
20 nancing measures;

21 (ii) improving energy end-use effi-  
22 ciency technologies, including buildings and  
23 facilities, vehicle, industrial, and co-genera-  
24 tion technology initiatives; and

1 (iii) promoting energy supply tech-  
2 nologies, including fossil, nuclear, and re-  
3 newable technology initiatives.

4 (D) establish an advisory committee involv-  
5 ing the private sector and other interested  
6 groups on the export and deployment of clean  
7 energy technology;

8 (E) monitor each agency's progress to-  
9 wards meeting goals in the 5-year strategic plan  
10 submitted to Congress pursuant to the Energy  
11 and Water Development Appropriations Act,  
12 2001, and the Energy and Water Development  
13 Appropriations Act, 2002;

14 (F) make recommendations to heads of ap-  
15 propriate Federal agencies on ways to stream-  
16 line federal programs and policies to improve  
17 each agency's role in the international develop-  
18 ment, demonstration, and deployment of clean  
19 energy technology;

20 (G) make assessments and recommenda-  
21 tions regarding the distinct technological, mar-  
22 ket, regional, and stakeholder challenges nec-  
23 essary to carry out the program; and

24 (H) recommend conditions and criteria  
25 that will help ensure that United States funds

1           promote sound energy policies in participating  
2           countries while simultaneously opening their  
3           markets and exporting United States energy  
4           technology.

5           (c) FEDERAL SUPPORT FOR CLEAN ENERGY TECH-  
6           NOLOGY TRANSFER.—Notwithstanding any other provi-  
7           sion of law, each federal agency or government corporation  
8           carrying out an assistance program in support of the ac-  
9           tivities of United States persons in the environment or en-  
10          ergy sector of a developing country, country in transition,  
11          or other partner country shall support, to the maximum  
12          extent practicable, the transfer of United States clean en-  
13          ergy technology as part of that program.

14          (d) ANNUAL REPORT.—Not later than April 1, 2002,  
15          and each year thereafter, the Interagency Working Group  
16          shall submit a report to Congress on its activities during  
17          the preceding calendar year. The report shall include a  
18          description of the technology, policy, and market opportu-  
19          nities for international development, demonstration, and  
20          deployment of clean energy technology investigated by the  
21          Interagency Working Group in that year, as well as any  
22          policy recommendations to improve the expansion of clean  
23          energy markets and U.S. clean energy technology exports.

24          (e) REPORT ON USE OF FUNDS.—Not later than Oc-  
25          tober 1, 2002, and each year thereafter, the Secretary of

1 State, in consultation with other federal agencies, shall  
2 submit a report to Congress indicating how United States  
3 funds appropriated for clean energy technology exports  
4 and other relevant federal programs are being directed in  
5 a manner that promotes sound energy policy commitments  
6 in developing countries, countries in transition, and other  
7 partner countries, including efforts pursuant to multi-lat-  
8 eral environmental agreements.

9 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the departments,  
11 agencies, and entities of the United States described in  
12 subsection (b) such sums as may be necessary to support  
13 the transfer of clean energy technology, consistent with  
14 the subsidy codes of the World Trade Organization, as  
15 part of assistance programs carried out by those depart-  
16 ments, agencies, and entities in support of activities of  
17 United States persons in the energy sector of a developing  
18 country, country in transition, or other partner country.

19 **SEC. 1322. INTERNATIONAL ENERGY TECHNOLOGY DE-**  
20 **PLOYMENT PROGRAM.**

21 (a) IN GENERAL.—Section 1608 of the Energy Policy  
22 Act of 1992 (42 U.S.C. 13387) is amended by striking  
23 subsection (l) and inserting the following:

24 “(l) INTERNATIONAL ENERGY TECHNOLOGY DE-  
25 PLOYMENT PROGRAM.—

1 “(1) DEFINITIONS.—In this subsection:

2 “(A) INTERNATIONAL ENERGY DEPLOY-  
3 MENT PROJECT.—The term ‘international en-  
4 ergy deployment project’ means a project to  
5 construct an energy production facility outside  
6 the United States—

7 “(i) the output of which will be con-  
8 sumed outside the United States; and

9 “(ii) the deployment of which will re-  
10 sult in a greenhouse gas reduction per unit  
11 of energy produced when compared to the  
12 technology that would otherwise be  
13 implemented—

14 “(I) 10 percentage points or  
15 more, in the case of a unit placed in  
16 service before January 1, 2010;

17 “(II) 20 percentage points or  
18 more, in the case of a unit placed in  
19 service after December 31, 2009, and  
20 before January 1, 2020; or

21 “(III) 30 percentage points or  
22 more, in the case of a unit placed in  
23 service after December 31, 2019, and  
24 before January 1, 2030.

1           “(B) QUALIFYING INTERNATIONAL EN-  
2           ERGY DEPLOYMENT PROJECT.—The term  
3           ‘qualifying international energy deployment  
4           project’ means an international energy deploy-  
5           ment project that—

6                   “(i) is submitted by a United States  
7                   firm to the Secretary in accordance with  
8                   procedures established by the Secretary by  
9                   regulation;

10                   “(ii) uses technology that has been  
11                   successfully developed or deployed in the  
12                   United States;

13                   “(iii) meets the criteria of subsection  
14                   (k);

15                   “(iv) is approved by the Secretary,  
16                   with notice of the approval being published  
17                   in the Federal Register; and

18                   “(v) complies with such terms and  
19                   conditions as the Secretary establishes by  
20                   regulation.

21           “(C) UNITED STATES.—For purposes of  
22           this paragraph, the term ‘United States’, when  
23           used in a geographical sense, means the 50  
24           States, the District of Columbia, Puerto Rico,  
25           Guam, the Virgin Islands, American Samoa,

1 and the Commonwealth of the Northern Mar-  
2 iana Islands.

3 “(2) PILOT PROGRAM FOR FINANCIAL ASSIST-  
4 ANCE.—

5 “(A) IN GENERAL.—Not later than 180  
6 days after the date of enactment of this sub-  
7 section, the Secretary shall, by regulation, pro-  
8 vide for a pilot program for financial assistance  
9 for qualifying international energy deployment  
10 projects.

11 “(B) SELECTION CRITERIA.—After con-  
12 sultation with the Secretary of State, the Sec-  
13 retary of Commerce, and the United States  
14 Trade Representative, the Secretary shall select  
15 projects for participation in the program based  
16 solely on the criteria under this title and with-  
17 out regard to the country in which the project  
18 is located.

19 “(C) FINANCIAL ASSISTANCE.—

20 “(i) IN GENERAL.—A United States  
21 firm that undertakes a qualifying inter-  
22 national energy deployment project that is  
23 selected to participate in the pilot program  
24 shall be eligible to receive a loan or a loan  
25 guarantee from the Secretary.



1           “(ii) RATE OF INTEREST.—The rate  
2 of interest of any loan made under clause  
3 (i) shall be equal to the rate for Treasury  
4 obligations then issued for periods of com-  
5 parable maturities.

6           “(iii) AMOUNT.—The amount of a  
7 loan or loan guarantee under clause (i)  
8 shall not exceed 50 percent of the total  
9 cost of the qualified international energy  
10 deployment project.

11           “(iv) DEVELOPED COUNTRIES.—  
12 Loans or loan guarantees made for  
13 projects to be located in a developed coun-  
14 try, as listed in Annex I of the United Na-  
15 tions Framework Convention on Climate  
16 Change, shall require at least a 50 percent  
17 contribution towards the total cost of the  
18 loan or loan guarantee by the host country.

19           “(v) DEVELOPING COUNTRIES.—  
20 Loans or loan guarantees made for  
21 projects to be located in a developing coun-  
22 try (those countries not listed in Annex I  
23 of the United Nations Framework Conven-  
24 tion on Climate Change) shall require at  
25 least a 10 percent contribution towards the

1 total cost of the loan or loan guarantee by  
2 the host country.

3 “(vi) CAPACITY BUILDING RE-  
4 SEARCH.—Proposals made for projects to  
5 be located in a developing country may in-  
6 clude a research component intended to  
7 build technological capacity within the host  
8 country. Such research must be related to  
9 the technologies being deployed and must  
10 involve both an institution in the host  
11 country and an industry, university or na-  
12 tional laboratory participant from the  
13 United States. The host institution shall  
14 contribute at least 50 percent of funds pro-  
15 vided for the capacity building research.

16 “(D) COORDINATION WITH OTHER PRO-  
17 GRAMS.—A qualifying international energy de-  
18 ployment project funded under this section shall  
19 not be eligible as a qualifying clean coal tech-  
20 nology under section 415 of the Clean Air Act  
21 (42 U.S.C. 7651n).

22 “(E) REPORT.—Not later than 5 years  
23 after the date of enactment of this subsection,  
24 the Secretary shall submit to the President a  
25 report on the results of the pilot projects.

1           “(F) RECOMMENDATION.—Not later than  
2           60 days after receiving the report under sub-  
3           paragraph (E), the President shall submit to  
4           Congress a recommendation, based on the re-  
5           sults of the pilot projects as reported by the  
6           Secretary of Energy, concerning whether the fi-  
7           nancial assistance program under this section  
8           should be continued, expanded, reduced, or  
9           eliminated.

10          “(3) AUTHORIZATION OF APPROPRIATIONS.—  
11          There are authorized to be appropriated to the Sec-  
12          retary to carry out this section \$100,000,000 for  
13          each of fiscal years 2003 through 2011, to remain  
14          available until expended.”.

15                   **Subtitle D—Climate Change**  
16                   **Science and Information**

17           **PART I—AMENDMENTS TO THE GLOBAL**  
18           **CHANGE RESEARCH ACT OF 1990**

19   **SEC. 1331. AMENDMENT OF GLOBAL CHANGE RESEARCH**  
20                   **ACT OF 1990.**

21           Except as otherwise expressly provided, whenever in  
22           this subtitle an amendment or repeal is expressed in terms  
23           of an amendment to, or repeal of, a section or other provi-  
24           sion, the reference shall be considered to be made to a

1 section or other provision of the Global Change Research  
2 Act of 1990 (15 U.S.C. 2921 et seq.).

3 **SEC. 1332. CHANGES IN DEFINITIONS.**

4 Paragraph (1) of section 2 (15 U.S.C. 2921) is  
5 amended by striking “Earth and” and inserting “Climate  
6 and”.

7 **SEC. 1333. CHANGE IN COMMITTEE NAME.**

8 Section 102 (15 U.S.C. 2932) is amended—

9 (1) by striking “EARTH AND” in the section  
10 heading and inserting “CLIMATE AND”; and

11 (2) by striking “Earth and” in subsection (a)  
12 and inserting “Climate and”.

13 **SEC. 1334. CHANGE IN NATIONAL GLOBAL CHANGE RE-**  
14 **SEARCH PLAN.**

15 Section 104 (15 U.S.C. 2934) is amended—

16 (1) by adding at the end of subsection (c) the  
17 following:

18 “(6) Methods for integrating information to  
19 provide predictive tools for planning and decision  
20 making by governments, communities and the pri-  
21 vate sector.”;

22 (2) by inserting “local, State, and Federal” be-  
23 fore “policy makers” in subsection (d)(3);

24 (3) by striking “and” in subsection (d)(2);

1           (4) by striking “change.” in subsection (d)(3)  
2           and inserting “change; and”;

3           (5) by adding at the end of subsection (d) the  
4           following:

5           “(4) establish a common assessment and mod-  
6           eling framework that may be used in both research  
7           and operations to predict and assess the vulner-  
8           ability of natural and managed ecosystems and of  
9           human society in the context of other environmental  
10          and social changes.”; and

11          (6) by adding at the end the following:

12          “(g) STRATEGIC PLAN; REVISED IMPLEMENTATION  
13          PLAN.—The Chairman of the Council, through the Com-  
14          mittee, shall develop a strategic plan for the United States  
15          Global Climate Change Research Program for the 10-year  
16          period beginning in 2002 and submit the plan to the Con-  
17          gress within 180 days after the date of enactment of the  
18          Global Climate Change Act of 2002. The Chairman,  
19          through the Committee, shall also submit a revised imple-  
20          mentation plan under subsection (a).”.

21          **SEC. 1335. INTEGRATED PROGRAM OFFICE.**

22          Section 105 (15 U.S.C. 2935) is amended—

23                 (1) by redesignating subsections (a), (b), and  
24                 (c) as subsections (b), (c), and (d), respectively; and

1           (2) inserting before subsection (b), as redesignig-  
2 nated, the following:

3           “(a) INTEGRATED PROGRAM OFFICE.—

4                 “(1) ESTABLISHMENT.—There is established in  
5 the Office of Science and Technology Policy an inte-  
6 grated program office for the global change research  
7 program.

8                 “(2) ORGANIZATION.—The integrated program  
9 office established under paragraph (1) shall be head-  
10 ed by the associate director with responsibility for  
11 climate change science and technology and shall in-  
12 clude a representative from each Federal agency  
13 participating in the global change research program.

14                 “(3) FUNCTION.—The integrated program of-  
15 fice shall—

16                         “(A) manage, working in conjunction with  
17 the Committee, interagency coordination and  
18 program integration of global change research  
19 activities and budget requests;

20                         “(B) ensure that the activities and pro-  
21 grams of each Federal agency or department  
22 participating in the program address the goals  
23 and objectives identified in the strategic re-  
24 search plan and interagency implementation  
25 plans;

1           “(C) ensure program and budget rec-  
2           ommendations of the Committee are commu-  
3           nicated to the President and are integrated into  
4           the climate change action strategy;

5           “(D) review, solicit, and identify, and allo-  
6           cate funds for, partnership projects that ad-  
7           dress critical research objectives or operational  
8           goals of the program, including projects that  
9           would fill research gaps identified by the pro-  
10          gram, and for which project resources are  
11          shared among at least 2 agencies participating  
12          in the program; and

13          “(E) review and provide recommendations  
14          on, in conjunction with the Committee, all an-  
15          nual appropriations requests from Federal  
16          agencies or departments participating in the  
17          program.

18          “(4) GRANT AUTHORITY.—The Integrated Pro-  
19          gram Office may authorize 1 or more of the depart-  
20          ments or agencies participating in the program to  
21          enter into contracts and make grants, using funds  
22          appropriated for use by the Office of Science and  
23          Technology Policy for the purpose of carrying out  
24          the responsibilities of that Office.

1           “(5) FUNDING.—For fiscal year 2003, and each  
2           fiscal year thereafter, not less than \$13,000,000  
3           shall be made available to the Integrated Program  
4           Office from amounts appropriated to or for the use  
5           of the Office of Science and Technology Policy.”;

6           (3) by striking “Committee.” in paragraph (2)  
7           of subsection (c), as redesignated, and inserting  
8           “Committee and the Integrated Program Office.”;  
9           and

10           (4) by inserting “and the Integrated Program  
11           Office” after “Committee” in paragraph (1) of sub-  
12           section (d), as redesignated.

13       **PART II—NATIONAL CLIMATE SERVICES**  
14                                   **AND MONITORING**

15       **SEC. 1341. AMENDMENT OF NATIONAL CLIMATE PROGRAM**

16                                   **ACT.**

17           Except as otherwise expressly provided, whenever in  
18           this subtitle an amendment or repeal is expressed in terms  
19           of an amendment to, or repeal of, a section or other provi-  
20           sion, the reference shall be considered to be made to a  
21           section or other provision of the National Climate Pro-  
22           gram Act (15 U.S.C. 2901 et seq.).

23       **SEC. 1342. CHANGES IN FINDINGS.**

24           Section 2 (15 U.S.C. 2901) is amended—



1           (1) by striking “Weather and climate change  
2           affect” in paragraph (1) and inserting “Weather, cli-  
3           mate change, and climate variability affect public  
4           safety, environmental security, human health,”;

5           (2) by striking “climate” in paragraph (2) and  
6           inserting “climate, including seasonal and decadal  
7           fluctuations,”;

8           (3) by striking “changes.” in paragraph (5) and  
9           inserting “changes and providing free exchange of  
10          meteorological data.”; and

11          (4) by adding at the end the following:

12           “(7) The present rate of advance in research  
13          and development is inadequate and new develop-  
14          ments must be incorporated rapidly into services for  
15          the benefit of the public.

16           “(8) The United States lacks adequate infra-  
17          structure and research to meet national climate  
18          monitoring and prediction needs.”.

19 **SEC. 1343. TOOLS FOR REGIONAL PLANNING.**

20          Section 5(d) (15 U.S.C. 2904(d)) is amended—

21           (1) by redesignating paragraphs (4) through  
22          (9) as paragraphs (5) through (10), respectively;

23           (2) by inserting after paragraph (3) the fol-  
24          lowing:

1           “(4) methods for improving modeling and pre-  
2           dictive capabilities and developing assessment meth-  
3           ods to guide national, regional, and local planning  
4           and decision-making on land use, water hazards, and  
5           related issues;”

6           (3) by inserting “sharing,” after “collection,” in  
7           paragraph (5), as redesignated;

8           (4) by striking “experimental” each place it ap-  
9           pears in paragraph (9), as redesignated;

10          (5) by striking “preliminary” in paragraph  
11          (10), as redesignated;

12          (6) by striking “this Act,” the first place it ap-  
13          pears in paragraph (10), as redesignated, and insert-  
14          ing “the Global Climate Change Act of 2002,”; and

15          (7) by striking “this Act,” the second place it  
16          appears in paragraph (10), as redesignated, and in-  
17          serting “that Act,”.

18 **SEC. 1344. AUTHORIZATION OF APPROPRIATIONS.**

19          Section 9 (15 U.S.C. 2908) is amended—

20               (1) by striking “1979,” and inserting “2002,”;

21               (2) by striking “1980,” and inserting “2003,”;

22               (3) by striking “1981,” and inserting “2004,”;

23          and

24               (4) by striking “\$25,500,000” and inserting  
25               “\$75,500,000”.

1 **SEC. 1345. NATIONAL CLIMATE SERVICE PLAN.**

2 The Act (15 U.S.C. 2901 et seq.) is amended by in-  
3 serting after section 5 the following:

4 **“SEC. 6. NATIONAL CLIMATE SERVICE PLAN.**

5 “Within one year after the date of enactment of the  
6 Global Climate Change Act of 2002, the Secretary of Com-  
7 merce shall submit to the Senate Committee on Com-  
8 merce, Science, and Transportation and the House  
9 Science Committee a plan of action for a National Climate  
10 Service under the National Climate Program. The plan  
11 shall set forth recommendations and funding estimates  
12 for—

13 “(1) a national center for operational climate  
14 monitoring and predicting with the functional capac-  
15 ity to monitor and adjust observing systems as nec-  
16 essary to reduce bias;

17 “(2) the design, deployment, and operation of  
18 an adequate national climate observing system that  
19 builds upon existing environmental monitoring sys-  
20 tems and closes gaps in coverage by existing sys-  
21 tems;

22 “(3) the establishment of a national coordinated  
23 modeling strategy, including a national climate mod-  
24 eling center to provide a dedicated capability for cli-  
25 mate modeling and a regular schedule of projections

1 on a long and short term time schedule and at a  
2 range of spatial scales;

3 “(4) improvements in modeling and assessment  
4 capabilities needed to integrate information to pre-  
5 dict regional and local climate changes and impacts;

6 “(5) in coordination with the private sector, im-  
7 proving the capacity to assess the impacts of pre-  
8 dicted and projected climate changes and variations;

9 “(6) a program for long term stewardship,  
10 quality control, development of relevant climate  
11 products, and efficient access to all relevant climate  
12 data, products, and critical model simulations; and

13 “(7) mechanisms to coordinate among Federal  
14 agencies, State, and local government entities and  
15 the academic community to ensure timely and full  
16 sharing and dissemination of climate information  
17 and services, both domestically and internationally.”.

18 **SEC. 1346. INTERNATIONAL PACIFIC RESEARCH AND CO-**  
19 **OPERATION.**

20 The Secretary of Commerce, in cooperation with the  
21 Administrator of the National Aeronautics and Space Ad-  
22 ministration, shall conduct international research in the  
23 Pacific region that will increase understanding of the na-  
24 ture and predictability of climate variability in the Asia-  
25 Pacific sector, including regional aspects of global environ-

1 mental change. Such research activities shall be conducted  
2 in cooperation with other nations of the region. There are  
3 authorized to be appropriated for purposes of this section  
4 \$1,500,000 to the National Oceanic and Atmospheric Ad-  
5 ministration, \$1,500,000 to the National Aeronautics and  
6 Space Administration, and \$500,000 for the Pacific  
7 ENSO Applications Center.

8 **SEC. 1347. REPORTING ON TRENDS.**

9 (a) **ATMOSPHERIC MONITORING AND VERIFICATION**  
10 **PROGRAM.**—The Secretary of Commerce, in coordination  
11 with relevant Federal agencies, shall, as part of the Na-  
12 tional Climate Service, establish an atmospheric moni-  
13 toring and verification program utilizing aircraft, satellite,  
14 ground sensors, and modeling capabilities to monitor,  
15 measure, and verify atmospheric greenhouse gas levels,  
16 dates, and emissions. Where feasible, the program shall  
17 measure emissions from identified sources participating in  
18 the reporting system for verification purposes. The pro-  
19 gram shall use measurements and standards that are con-  
20 sistent with those utilized in the greenhouse gas measure-  
21 ment and reporting system established under subsection  
22 (a) and the registry established under section 1102.

23 (b) **ANNUAL REPORTING.**—The Secretary of Com-  
24 merce shall issue an annual report that identifies green-  
25 house emissions and trends on a local, regional, and na-

1 tional level. The report shall also identify emissions or re-  
2 ductions attributable to individual or multiple sources cov-  
3 ered by the greenhouse gas measurement and reporting  
4 system established under section 1102.

## 5 **PART III—OCEAN AND COASTAL** 6 **OBSERVING SYSTEM**

### 7 **SEC. 1351. OCEAN AND COASTAL OBSERVING SYSTEM.**

8 (a) ESTABLISHMENT.—The President, through the  
9 National Ocean Research Leadership Council, established  
10 by section 7902(a) of title 10, United States Code, shall  
11 establish and maintain an integrated ocean and coastal ob-  
12 serving system that provides for long-term, continuous,  
13 and real-time observations of the oceans and coasts for  
14 the purposes of—

15 (1) understanding, assessing and responding to  
16 human-induced and natural processes of global  
17 change;

18 (2) improving weather forecasts and public  
19 warnings;

20 (3) strengthening national security and military  
21 preparedness;

22 (4) enhancing the safety and efficiency of ma-  
23 rine operations;

1           (5) supporting efforts to restore the health of  
2           and manage coastal and marine ecosystems and liv-  
3           ing resources;

4           (6) monitoring and evaluating the effectiveness  
5           of ocean and coastal environmental policies;

6           (7) reducing and mitigating ocean and coastal  
7           pollution; and

8           (8) providing information that contributes to  
9           public awareness of the state and importance of the  
10          oceans.

11          (b) COUNCIL FUNCTIONS.—In addition to its respon-  
12          sibilities under section 7902(a) of such title, the Council  
13          shall be responsible for planning and coordinating the ob-  
14          serving system and in carrying out this responsibility  
15          shall—

16                (1) develop and submit to the Congress, within  
17                6 months after the date of enactment of this Act, a  
18                plan for implementing a national ocean and coastal  
19                observing system that—

20                    (A) uses an end-to-end engineering and de-  
21                    velopment approach to develop a system design  
22                    and schedule for operational implementation;

23                    (B) determines how current and planned  
24                    observing activities can be integrated in a cost-  
25                    effective manner;

1 (C) provides for regional and concept dem-  
2 onstration projects;

3 (D) describes the role and estimated budg-  
4 et of each Federal agency in implementing the  
5 plan;

6 (E) contributes, to the extent practicable,  
7 to the National Global Change Research Plan  
8 under section 104 of the Global Change Re-  
9 search Act of 1990 (15 U.S.C. 2934); and

10 (F) makes recommendations for coordina-  
11 tion of ocean observing activities of the United  
12 States with those of other nations and inter-  
13 national organizations;

14 (2) serve as the mechanism for coordinating  
15 Federal ocean observing requirements and activities;

16 (3) work with academic, State, industry and  
17 other actual and potential users of the observing sys-  
18 tem to make effective use of existing capabilities and  
19 incorporate new technologies;

20 (4) approve standards and protocols for the ad-  
21 ministration of the system, including—

22 (A) a common set of measurements to be  
23 collected and distributed routinely and by uni-  
24 form methods;



1 (B) standards for quality control and as-  
2 sessment of data;

3 (C) design, testing and employment of  
4 forecast models for ocean conditions;

5 (D) data management, including data  
6 transfer protocols and archiving; and

7 (E) designation of coastal ocean observing  
8 regions; and

9 (5) in consultation with the Secretary of State,  
10 provide representation at international meetings on  
11 ocean observing programs and coordinate relevant  
12 Federal activities with those of other nations.

13 (c) SYSTEM ELEMENTS.—The integrated ocean and  
14 coastal observing system shall include the following ele-  
15 ments:

16 (1) A nationally coordinated network of regional  
17 coastal ocean observing systems that measure and  
18 disseminate a common set of ocean observations and  
19 related products in a uniform manner and according  
20 to sound scientific practice, but that are adapted to  
21 local and regional needs.

22 (2) Ocean sensors for climate observations, in-  
23 cluding the Arctic Ocean and sub-polar seas.

24 (3) Coastal, relocatable, and cabled sea floor  
25 observatories.

1           (4) Broad bandwidth communications that are  
2           capable of transmitting high volumes of data from  
3           open ocean locations at low cost and in real time.

4           (5) Ocean data management and assimilation  
5           systems that ensure full use of new sources of data  
6           from space-borne and in situ sensors.

7           (6) Focused research programs.

8           (7) Technology development program to develop  
9           new observing technologies and techniques, including  
10          data management and dissemination.

11          (8) Public outreach and education.

12 **SEC. 1352. AUTHORIZATION OF APPROPRIATIONS.**

13          For development and implementation of an inte-  
14          grated ocean and coastal observation system under this  
15          title, including financial assistance to regional coastal  
16          ocean observing systems, there are authorized to be appro-  
17          priated \$235,000,000 in fiscal year 2003, \$315,000,000  
18          in fiscal year 2004, \$390,000,000 in fiscal year 2005, and  
19          \$445,000,000 in fiscal year 2006.

20                   **Subtitle E—Climate Change**  
21                   **Technology**

22 **SEC. 1361. NIST GREENHOUSE GAS FUNCTIONS.**

23          Section 2(c) of the National Institute of Standards  
24          and Technology Act (15 U.S.C. 272(c)) is amended—

1 (1) striking “and” after the semicolon in para-  
2 graph (21);

3 (2) by redesignating paragraph (22) as para-  
4 graph (23); and

5 (3) by inserting after paragraph (21) the fol-  
6 lowing:

7 “(22) perform research to develop enhanced  
8 measurements, calibrations, standards, and tech-  
9 nologies which will enable the reduced production in  
10 the United States of greenhouse gases associated  
11 with global warming, including carbon dioxide, meth-  
12 ane, nitrous oxide, ozone, perfluorocarbons,  
13 hydrofluorocarbons, and sulphur hexafluoride; and”.

14 **SEC. 1362. DEVELOPMENT OF NEW MEASUREMENT TECH-**  
15 **NOLOGIES.**

16 (a) IN GENERAL.—The Secretary of Commerce shall  
17 initiate a program to develop, with technical assistance  
18 from appropriate Federal agencies, innovative standards  
19 and measurement technologies (including technologies to  
20 measure carbon changes due to changes in land use cover)  
21 to calculate—

22 (1) greenhouse gas emissions and reductions  
23 from agriculture, forestry, and other land use prac-  
24 tices;



1 a global climate change standards and processes re-  
2 search program.

3 “(2) RESEARCH PROJECTS.—The specific con-  
4 tents and priorities of the research program shall be  
5 determined in consultation with appropriate Federal  
6 agencies, including the Environmental Protection  
7 Agency, the National Oceanic and Atmospheric Ad-  
8 ministration, and the National Aeronautics and  
9 Space Administration. The program generally shall  
10 include basic and applied research—

11 “(A) to develop and provide the enhanced  
12 measurements, calibrations, data, models, and  
13 reference material standards which will enable  
14 the monitoring of greenhouse gases;

15 “(B) to assist in establishing of a baseline  
16 reference point for future trading in greenhouse  
17 gases and the measurement of progress in emis-  
18 sions reduction;

19 “(C) that will be exchanged internationally  
20 as scientific or technical information which has  
21 the stated purpose of developing mutually rec-  
22 ognized measurements, standards, and proce-  
23 dures for reducing greenhouse gases; and

1           “(D) to assist in developing improved in-  
2           dustrial processes designed to reduce or elimi-  
3           nate greenhouse gases.

4           “(c) NATIONAL MEASUREMENT LABORATORIES.—

5           “(1) IN GENERAL.—In carrying out this sec-  
6           tion, the Director shall utilize the collective skills of  
7           the National Measurement Laboratories of the Na-  
8           tional Institute of Standards and Technology to im-  
9           prove the accuracy of measurements that will permit  
10          better understanding and control of these industrial  
11          chemical processes and result in the reduction or  
12          elimination of greenhouse gases.

13          “(2) MATERIAL, PROCESS, AND BUILDING RE-  
14          SEARCH.—The National Measurement Laboratories  
15          shall conduct research under this subsection that  
16          includes—

17                 “(A) developing material and manufac-  
18                 turing processes which are designed for energy  
19                 efficiency and reduced greenhouse gas emissions  
20                 into the environment;

21                 “(B) developing environmentally-friendly,  
22                 ‘green’ chemical processes to be used by indus-  
23                 try; and

24                 “(C) enhancing building performance with  
25                 a focus in developing standards or tools which

1 will help incorporate low or no-emission tech-  
2 nologies into building designs.

3 “(3) STANDARDS AND TOOLS.—The National  
4 Measurement Laboratories shall develop standards  
5 and tools under this subsection that include software  
6 to assist designers in selecting alternate building  
7 materials, performance data on materials, artificial  
8 intelligence-aided design procedures for building sub-  
9 systems and ‘smart buildings’, and improved test  
10 methods and rating procedures for evaluating the  
11 energy performance of residential and commercial  
12 appliances and products.

13 “(d) NATIONAL VOLUNTARY LABORATORY ACCREDI-  
14 TATION PROGRAM.—The Director shall utilize the Na-  
15 tional Voluntary Laboratory Accreditation Program under  
16 this section to establish a program to include specific cali-  
17 bration or test standards and related methods and proto-  
18 cols assembled to satisfy the unique needs for accredita-  
19 tion in measuring the production of greenhouse gases. In  
20 carrying out this subsection the Director may cooperate  
21 with other departments and agencies of the Federal Gov-  
22 ernment, State and local governments, and private organi-  
23 zations.”.

1 **SEC. 1364. TECHNOLOGY DEVELOPMENT AND DIFFUSION.**

2 (a) **ADVANCED TECHNOLOGY PROGRAM COMPETI-**  
3 **TIONS.**—The Director of the National Institute of Stand-  
4 ards and Technology, through the Advanced Technology  
5 Program, may hold a portion of the Institute’s competi-  
6 tions in thematic areas, selected after consultation with  
7 industry, academics, and other Federal Agencies, designed  
8 to develop and commercialize enabling technologies to ad-  
9 dress global climate change by significantly reducing  
10 greenhouse gas emissions and concentrations in the at-  
11 mosphere.

12 (b) **MANUFACTURING EXTENSION PARTNERSHIP**  
13 **PROGRAM FOR “GREEN” MANUFACTURING.**—The Direc-  
14 tor of the National Institute of Standards and Technology,  
15 through the Manufacturing Extension Partnership Pro-  
16 gram, may develop a program to support the implementa-  
17 tion of new “green” manufacturing technologies and tech-  
18 niques by the more than 380,000 small manufacturers.

19 **SEC. 1365. AUTHORIZATION OF APPROPRIATIONS.**

20 There are authorized to be appropriated to the Direc-  
21 tor to carry out functions pursuant to sections 1345,  
22 1351, and 1361 through 1363, \$10,000,000 for fiscal  
23 years 2002 through 2006.



1       **Subtitle F—Climate Adaptation**  
2                   **and Hazards Prevention**

3       **PART I—ASSESSMENT AND ADAPTATION**

4       **SEC. 1371. REGIONAL CLIMATE ASSESSMENT AND ADAPTA-**  
5                   **TION PROGRAM.**

6           (a) IN GENERAL.—The President shall establish  
7 within the Department of Commerce a National Climate  
8 Change Vulnerability and Adaptation Program for re-  
9 gional impacts related to increasing concentrations of  
10 greenhouse gases in the atmosphere and climate varia-  
11 bility.

12          (b) COORDINATION.—In designing such program the  
13 Secretary shall consult with the Federal Emergency Man-  
14 agement Agency, the Environmental Protection Agency,  
15 the Army Corps of Engineers, the Department of Trans-  
16 portation, and other appropriate Federal, State, and local  
17 government entities.

18          (c) VULNERABILITY ASSESSMENTS.—The program  
19 shall—

20           (1) evaluate, based on predictions developed  
21 under this Act and the National Climate Program  
22 Act (15 U.S.C. 2901 et seq.), regional vulnerability  
23 to phenomena associated with climate change and  
24 climate variability, including—

25                   (A) increases in severe weather events;

1 (B) sea level rise and shifts in the  
2 hydrological cycle;

3 (C) natural hazards, including tsunami,  
4 drought, flood and fire; and

5 (D) alteration of ecological communities,  
6 including at the ecosystem or watershed levels;  
7 and

8 (2) build upon predictions and other informa-  
9 tion developed in the National Assessments prepared  
10 under the Global Change Research Act of 1990 (15  
11 U.S.C. 2921 et seq.).

12 (d) PREPAREDNESS RECOMMENDATIONS.—The pro-  
13 gram shall submit a report to Congress within 2 years  
14 after the date of enactment of this Act that identifies and  
15 recommends implementation and funding strategies for  
16 short and long-term actions that may be taken at the na-  
17 tional, regional, State, and local level—

18 (1) to minimize threats to human life and prop-  
19 erty,

20 (2) to improve resilience to hazards,

21 (3) to minimize economic impacts; and

22 (4) to reduce threats to critical biological and  
23 ecological processes.

24 (e) INFORMATION AND TECHNOLOGY.—The Sec-  
25 retary shall make available appropriate information and

1 other technologies and products that will assist national,  
2 regional, State, and local efforts to reduce loss of life and  
3 property, and coordinate dissemination of such tech-  
4 nologies and products.

5 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
6 are authorized to be appropriated to the Secretary of Com-  
7 merce \$4,500,000 to implement the requirements of this  
8 section.

9 **SEC. 1372. COASTAL VULNERABILITY AND ADAPTATION.**

10 (a) COASTAL VULNERABILITY.—Within 2 years after  
11 the date of enactment of this Act, the Secretary shall, in  
12 consultation with the appropriate Federal, State, and local  
13 governmental entities, conduct regional assessments of the  
14 vulnerability of coastal areas to hazards associated with  
15 climate change, climate variability, sea level rise, and fluc-  
16 tuation of Great Lakes water levels. The Secretary may  
17 also establish, as warranted, longer term regional assess-  
18 ment programs. The Secretary may also consult with the  
19 governments of Canada and Mexico as appropriate in de-  
20 veloping such regional assessments. In preparing the re-  
21 gional assessments, the Secretary shall collect and compile  
22 current information on climate change, sea level rise, nat-  
23 ural hazards, and coastal erosion and mapping, and spe-  
24 cifically address impacts on Arctic regions and the Cen-

1 tral, Western, and South Pacific regions. The regional as-  
2 sessments shall include an evaluation of—

3 (1) social impacts associated with threats to  
4 and potential losses of housing, communities, and in-  
5 frastructure;

6 (2) physical impacts such as coastal erosion,  
7 flooding and loss of estuarine habitat, saltwater in-  
8 trusion of aquifers and saltwater encroachment, and  
9 species migration; and

10 (3) economic impact on local, State, and re-  
11 gional economies, including the impact on abundance  
12 or distribution of economically important living ma-  
13 rine resources.

14 (b) COASTAL ADAPTATION PLAN.—The Secretary  
15 shall, within 3 years after the date of enactment of this  
16 Act, submit to the Congress a national coastal adaptation  
17 plan, composed of individual regional adaptation plans  
18 that recommend targets and strategies to address coastal  
19 impacts associated with climate change, sea level rise, or  
20 climate variability. The plan shall be developed with the  
21 participation of other Federal, State, and local govern-  
22 ment agencies that will be critical in the implementation  
23 of the plan at the State and local levels. The regional plans  
24 that will make up the national coastal adaptation plan  
25 shall be based on the information contained in the regional

1 assessments and shall identify special needs associated  
2 with Arctic areas and the Central, Western, and South  
3 Pacific regions. The Plan shall recommend both short and  
4 long-term adaptation strategies and shall include rec-  
5 ommendations regarding—

6 (1) Federal flood insurance program modifica-  
7 tions;

8 (2) areas that have been identified as high risk  
9 through mapping and assessment;

10 (3) mitigation incentives such as rolling ease-  
11 ments, strategic retreat, State or Federal acquisition  
12 in fee simple or other interest in land, construction  
13 standards, and zoning;

14 (4) land and property owner education;

15 (5) economic planning for small communities  
16 dependent upon affected coastal resources, including  
17 fisheries; and

18 (6) funding requirements and mechanisms.

19 (c) TECHNICAL PLANNING ASSISTANCE.—The Sec-  
20 retary, through the National Ocean Service, shall establish  
21 a coordinated program to provide technical planning as-  
22 sistance and products to coastal States and local govern-  
23 ments as they develop and implement adaptation or miti-  
24 gation strategies and plans. Products, information, tools  
25 and technical expertise generated from the development of

1 the regional assessments and the regional adaptation  
2 plans will be made available to coastal States for the pur-  
3 poses of developing their own State and local plans.

4 (d) COASTAL ADAPTATION GRANTS.—The Secretary  
5 shall provide grants of financial assistance to coastal  
6 States with Federally approved coastal zone management  
7 programs to develop and begin implementing coastal adap-  
8 tation programs if the State provides a Federal-to-State  
9 match of 4 to 1 in the first fiscal year, 2.3 to 1 in the  
10 second fiscal year, 2 to 1 in the third fiscal year, and 1  
11 to 1 thereafter. Distribution of these funds to coastal  
12 states shall be based upon the formula established under  
13 section 306(c) of the Coastal Zone Management Act of  
14 1972 (16 U.S.C. 1455(c)), adjusted in consultation with  
15 the States as necessary to provide assistance to particu-  
16 larly vulnerable coastlines.

17 (e) COASTAL RESPONSE PILOT PROGRAM.—

18 (1) IN GENERAL.—The Secretary shall establish  
19 a 4-year pilot program to provide financial assist-  
20 ance to coastal communities most adversely affected  
21 by the impact of climate change or climate varia-  
22 bility that are located in States with Federally ap-  
23 proved coastal zone management programs.

1           (2) ELIGIBLE PROJECTS.—A project is eligible  
2 for financial assistance under the pilot program if  
3 it—

4           (A) will restore or strengthen coastal re-  
5 sources, facilities, or infrastructure that have  
6 been damaged by such an impact, as deter-  
7 mined by the Secretary;

8           (B) meets the requirements of the Coastal  
9 Zone Management Act (16 U.S.C. 1451 et seq.)  
10 and is consistent with the coastal zone manage-  
11 ment plan of the State in which it is located;  
12 and

13           (C) will not cost more than \$100,000.

14           (3) FUNDING SHARE.—The Federal funding  
15 share of any project under this subsection may not  
16 exceed 75 percent of the total cost of the project. In  
17 the administration of this paragraph—

18           (A) the Secretary may take into account  
19 in-kind contributions and other non-cash sup-  
20 port of any project to determine the Federal  
21 funding share for that project; and

22           (B) the Secretary may waive the require-  
23 ments of this paragraph for a project in a com-  
24 munity if—

1 (i) the Secretary determines that the  
2 project is important; and

3 (ii) the economy and available re-  
4 sources of the community in which the  
5 project is to be conducted are insufficient  
6 to meet the non-Federal share of the  
7 projects's costs.

8 (f) DEFINITIONS.—Any term used in this section that  
9 is defined in section 304 of the Coastal Zone Management  
10 Act of 1972 (16 U.S.C. 1453) has the meaning given it  
11 by that section.

12 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
13 are authorized to be appropriated \$3,000,000 annually for  
14 regional assessments under subsection (a), and  
15 \$3,000,000 annually for coastal adaptation grants under  
16 subsection (d).

17 **PART II—FORECASTING AND PLANNING**  
18 **PILOT PROGRAMS**

19 **SEC. 1381. REMOTE SENSING PILOT PROJECTS.**

20 (a) IN GENERAL.—The Administrator of the Na-  
21 tional Aeronautics and Space Administration shall estab-  
22 lish, through the National Oceanic and Atmospheric Ad-  
23 ministration's Coastal Services Center, a program of  
24 grants for competitively awarded pilot projects to explore  
25 the integrated use of sources of remote sensing and other



1 geospatial information to address State, local, regional,  
2 and tribal agency needs to forecast a plan for adaptation  
3 to coastal zone and land use changes that may result as  
4 a consequence of global climate change or climate varia-  
5 bility.

6 (b) PREFERRED PROJECTS.—In awarding grants  
7 under this section, the Center shall give preference to  
8 projects that—

9 (1) focus on areas that are most sensitive to the  
10 consequences of global climate change or climate  
11 variability;

12 (2) make use of existing public or commercial  
13 data sets;

14 (3) integrate multiple sources of geospatial in-  
15 formation, such as geographic information system  
16 data, satellite-provided positioning data, and re-  
17 motely sensed data, in innovative ways;

18 (4) offer diverse, innovative approaches that  
19 may serve as models for establishing a future coordi-  
20 nated framework for planning strategies for adapta-  
21 tion to coastal zone and land use changes related to  
22 global climate change or climate variability;

23 (5) include funds or in-kind contributions from  
24 non-Federal sources;

1           (6) involve the participation of commercial enti-  
2           ties that process raw or lightly processed data, often  
3           merging that data with other geospatial information,  
4           to create data products that have significant value  
5           added to the original data; and

6           (7) taken together demonstrate as diverse a set  
7           of public sector applications as possible.

8           (c) OPPORTUNITIES.—In carrying out this section,  
9           the Center shall seek opportunities to assist—

10           (1) in the development of commercial applica-  
11           tions potentially available from the remote sensing  
12           industry; and

13           (2) State, local, regional, and tribal agencies in  
14           applying remote sensing and other geospatial infor-  
15           mation technologies for management and adaptation  
16           to coastal and land use consequences of global cli-  
17           mate change or climate variability.

18           (d) DURATION.—Assistance for a pilot project under  
19           subsection (a) shall be provided for a period of not more  
20           than 3 years.

21           (e) RESPONSIBILITIES OF GRANTEES.—Within 180  
22           days after completion of a grant project, each recipient  
23           of a grant under subsection (a) shall transmit a report  
24           to the Center on the results of the pilot project and con-  
25           duct at least one workshop for potential users to dissemi-

1 nate the lessons learned from the pilot project as widely  
2 as feasible.

3 (f) REGULATIONS.—The Center shall issue regula-  
4 tions establishing application, selection, and implementa-  
5 tion procedures for pilot projects, and guidelines for re-  
6 ports and workshops required by this section.

7 **SEC. 1382. DATABASE ESTABLISHMENT.**

8 The Center shall establish and maintain an elec-  
9 tronic, Internet-accessible database of the results of each  
10 pilot project completed under section 1381.

11 **SEC. 1383. DEFINITIONS.**

12 In this subtitle:

13 (1) CENTER.—The term “Center” means the  
14 Coastal Services Center of the National Oceanic and  
15 Atmospheric Administration.

16 (2) GEOSPATIAL INFORMATION.—The term  
17 “geospatial information” means knowledge of the  
18 nature and distribution of physical and cultural fea-  
19 tures on the landscape based on analysis of data  
20 from airborne or spaceborne platforms or other  
21 types and sources of data.

22 (3) INSTITUTION OF HIGHER EDUCATION.—The  
23 term “institution of higher education” has the  
24 meaning given that term in section 101(a) of the  
25 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

1 **SEC. 1384. AUTHORIZATION OF APPROPRIATIONS.**

2 There are authorized to be appropriated to the Ad-  
3 ministrator to carry out the provisions of this subtitle—

- 4 (1) \$17,500,000 for fiscal year 2003;  
5 (2) \$20,000,000 for fiscal year 2004;  
6 (3) \$22,500,000 for fiscal year 2005; and  
7 (4) \$25,000,000 for fiscal year 2006.

8 **TITLE XIV—MANAGEMENT OF**  
9 **DOE SCIENCE AND TECH-**  
10 **NOLOGY PROGRAMS**

11 **SEC. 1401. DEFINITIONS.**

12 In this title:

13 (1) **APPLICABILITY OF DEFINITIONS.**—The  
14 definitions in section 1203 shall apply.

15 (2) **SINGLE-PURPOSE RESEARCH FACILITY.**—  
16 The term “single-purpose research facility” means  
17 any of the following primarily single purpose entities  
18 owned by the Department of Energy—

- 19 (A) Ames Laboratory;  
20 (B) East Tennessee Technology Park;  
21 (C) Environmental Measurement Labora-  
22 tory;  
23 (D) Fernald Environmental Management  
24 Project;  
25 (E) Fermi National Accelerator Labora-  
26 tory;

- 1 (F) Kansas City Plant;
- 2 (G) Nevada Test Site;
- 3 (H) New Brunswick Laboratory;
- 4 (I) Pantex Weapons Facility;
- 5 (J) Princeton Plasma Physics Laboratory;
- 6 (K) Savannah River Technology Center;
- 7 (L) Stanford Linear Accelerator Center;
- 8 (M) Thomas Jefferson National Accel-
- 9 erator Facility;
- 10 (N) Y-12 facility at Oak Ridge National
- 11 Laboratory;
- 12 (O) Waste Isolation Pilot Plant; or
- 13 (P) other similar organization of the De-
- 14 partment designated by the Secretary that en-
- 15 engages in technology transfer, partnering, or li-
- 16 censing activities.

17 **SEC. 1402. AVAILABILITY OF FUNDS.**

18 Funds authorized to be appropriated to the Depart-  
19 ment of Energy under title XII, title XIII, and title XV  
20 shall remain available until expended.

21 **SEC. 1403. COST SHARING.**

22 (a) RESEARCH AND DEVELOPMENT.—For research  
23 and development projects funded from appropriations au-  
24 thorized under subtitles A through D of title XII, the Sec-  
25 retary shall require a commitment from non-federal

1 sources of at least 20 percent of the cost of the project.  
2 The Secretary may reduce or eliminate the non-Federal  
3 requirement under this subsection if the Secretary deter-  
4 mines that the research and development is of a basic or  
5 fundamental nature.

6 (b) DEMONSTRATION AND DEPLOYMENT.—For dem-  
7 onstration and technology deployment activities funded  
8 from appropriations authorized under subtitles A through  
9 D of title XII, the Secretary shall require a commitment  
10 from non-federal sources of at least 50 percent of the costs  
11 of the project directly and specifically related to any dem-  
12 onstration or technology deployment activity. The Sec-  
13 retary may reduce or eliminate the non-federal require-  
14 ment under this subsection if the Secretary determines  
15 that the reduction is necessary and appropriate consid-  
16 ering the technological risks involved in the project and  
17 is necessary to meet one or more goals of this title.

18 (c) CALCULATION OF AMOUNT.—In calculating the  
19 amount of the non-Federal commitment under subsection  
20 (a) or (b), the Secretary shall include cash, personnel,  
21 services, equipment, and other resources.

22 **SEC. 1404. MERIT REVIEW OF PROPOSALS.**

23 Awards of funds authorized under title XII, subtitle  
24 A of title XIII, and title XV shall be made only after an  
25 independent review of the scientific and technical merit of

1 the proposals for such awards has been made by the De-  
2 partment of Energy.

3 **SEC. 1405. EXTERNAL TECHNICAL REVIEW OF DEPART-**  
4 **MENTAL PROGRAMS.**

5 (a) NATIONAL ENERGY RESEARCH AND DEVELOP-  
6 MENT ADVISORY BOARDS.—(1) The Secretary shall estab-  
7 lish an advisory board to oversee Department research and  
8 development programs in each of the following areas—

9 (A) energy efficiency;

10 (B) renewable energy;

11 (C) fossil energy;

12 (D) nuclear energy; and

13 (E) climate change technology, with emphasis  
14 on integration, collaboration, and other special fea-  
15 tures of the cross-cutting technologies supported by  
16 the Office of Climate Change Technology.

17 (2) The Secretary may designate an existing advisory  
18 board within the Department to fulfill the responsibilities  
19 of an advisory board under this subsection, or may enter  
20 into appropriate arrangements with the National Academy  
21 of Sciences to establish such an advisory board.

22 (b) UTILIZATION OF EXISTING COMMITTEES.—The  
23 Secretary of Energy shall continue to use the scientific  
24 program advisory committees chartered under the Federal

1 Advisory Committee Act by the Office of Science to over-  
2 see research and development programs under that Office.

3 (c) MEMBERSHIP.—Each advisory board under this  
4 section shall consist of experts drawn from industry, aca-  
5 demia, federal laboratories, research institutions, or state,  
6 local, or tribal governments, as appropriate.

7 (d) MEETINGS AND PURPOSES.—Each advisory  
8 board under this section shall meet at least semi-annually  
9 to review and advise on the progress made by the respec-  
10 tive research, development, demonstration, and technology  
11 deployment program. The advisory board shall also review  
12 the adequacy and relevance of the goals established for  
13 each program by Congress and the President, and may  
14 otherwise advise on promising future directions in re-  
15 search and development that should be considered by each  
16 program.

17 **SEC. 1406. IMPROVED COORDINATION AND MANAGEMENT**  
18 **OF CIVILIAN SCIENCE AND TECHNOLOGY**  
19 **PROGRAMS.**

20 (a) EFFECTIVE TOP-LEVEL COORDINATION OF RE-  
21 SEARCH AND DEVELOPMENT PROGRAMS.—Section 202(b)  
22 of the Department of Energy Organization Act (42 U.S.C.  
23 7132(b)) is amended to read as follows:

24 “(b)(1) There shall be in the Department an Under  
25 Secretary for Energy and Science, who shall be appointed



1 by the President, by and with the advice and consent of  
2 the Senate. The Under Secretary shall be compensated at  
3 the rate provided for at level III of the Executive Schedule  
4 under section 5314 of title 5, United States Code.

5 “(2) The Under Secretary for Energy and Science  
6 shall be appointed from among persons who—

7 “(A) have extensive background in scientific or  
8 engineering fields; and

9 “(B) are well qualified to manage the civilian  
10 research and development programs of the Depart-  
11 ment of Energy.

12 “(3) The Under Secretary for Energy and Science  
13 shall—

14 “(A) serve as the Science and Technology Advi-  
15 sor to the Secretary;

16 “(B) monitor the Department’s research and  
17 development programs in order to advise the Sec-  
18 retary with respect to any undesirable duplication or  
19 gaps in such programs;

20 “(C) advise the Secretary with respect to the  
21 well-being and management of the multipurpose lab-  
22 oratories under the jurisdiction of the Department;

23 “(D) advise the Secretary with respect to edu-  
24 cation and training activities required for effective

1 short- and long-term basic and applied research ac-  
2 tivities of the Department;

3 “(E) advise the Secretary with respect to grants  
4 and other forms of financial assistance required for  
5 effective short- and long-term basic and applied re-  
6 search activities of the Department; and

7 “(F) exercise authority and responsibility over  
8 Assistant Secretaries carrying out energy research  
9 and development and energy technology functions  
10 under sections 203 and 209, as well as other ele-  
11 ments of the Department assigned by the Secretary.

12 (b) RECONFIGURATION OF POSITION OF DIRECTOR  
13 OF THE OFFICE OF SCIENCE.—Section 209 of the Depart-  
14 ment of Energy Organization Act (41 U.S.C. 7139) is  
15 amended to read as follows—

16 “(a) There shall be within the Department an Office  
17 of Science, to be headed by an Assistant Secretary of  
18 Science, who shall be appointed by the President, by and  
19 with the advice and consent of the Senate, and who shall  
20 be compensated at the rate provided for level IV of the  
21 Executive Schedule under section 5315 of title 5, United  
22 States Code.

23 “(b) The Assistant Secretary of Science shall be in  
24 addition to the Assistant Secretaries provided for under  
25 section 203 of this Act.

1       “(c) It shall be the duty and responsibility of the As-  
2     sistant Secretary of Science to carry out the fundamental  
3     science and engineering research functions of the Depart-  
4     ment, including the responsibility for policy and manage-  
5     ment of such research, as well as other functions vested  
6     in the Secretary which he may assign to the Assistant Sec-  
7     retary.”.

8       (c) ADDITIONAL ASSISTANT SECRETARY POSITION  
9     TO ENABLE IMPROVED MANAGEMENT OF NUCLEAR EN-  
10    ERGY ISSUES.—

11           (1) Section 203(a) of the Department of En-  
12     ergy Organization Act (42 U.S.C. 7133(a)) is  
13     amended by striking “There shall be in the Depart-  
14     ment six Assistant Secretaries” and inserting “Ex-  
15     cept as provided in section 209, there shall be in the  
16     Department seven Assistant Secretaries”.

17           (2) It is the Sense of the Senate that the lead-  
18     ership for departmental missions in nuclear energy  
19     should be at the Assistant Secretary level.

20       (d) TECHNICAL AND CONFORMING AMENDMENTS.—

21           (1) Section 202 of the Department of Energy  
22     Organization Act (42 U.S.C. 7132) is further  
23     amended by adding the following at the end:

24       “(d) There shall be in the Department an Under Sec-  
25     retary, who shall be appointed by the President, by and

1 with the advice and consent of the Senate, and who shall  
2 perform such functions and duties as the Secretary shall  
3 prescribe, consistent with this section. The Under Sec-  
4 retary shall be compensated at the rate provided for level  
5 III of the Executive Schedule under section 5314 of title  
6 5, United States Code.

7 “(e) There shall be in the Department a General  
8 Counsel, who shall be appointed by the President, by and  
9 with the advice and consent of the Senate. The General  
10 Counsel shall be compensated at the rate provided for level  
11 IV of the Executive Schedule under section 5315 of title  
12 5, United States Code.”.

13 (2) Section 5314 of title 5, United States Code,  
14 is amended by striking “Under Secretaries of En-  
15 ergy (2)” and inserting “Under Secretaries of En-  
16 ergy (3)”.

17 (3) Section 5315 of title 5, United States Code,  
18 is amended by—

19 (A) striking “Director, Office of Science,  
20 Department of Energy.”; and

21 (B) striking “Assistant Secretaries of En-  
22 ergy (6)” and inserting “Assistant Secretaries  
23 of Energy (8)”.

1 (4) The table of contents for the Department of  
2 Energy Organization Act (42 U.S.C. 7101 note) is  
3 amended—

4 (A) by striking “Section 209” and insert-  
5 ing “Sec. 209”;

6 (B) by striking “213.” and inserting “Sec.  
7 213”;

8 (C) by striking “214.” and inserting “Sec.  
9 214.”;

10 (D) by striking “215.” and inserting “Sec.  
11 215.”; and

12 (E) by striking “216.” and inserting “Sec.  
13 216.”.

14 **SEC. 1407. IMPROVED COORDINATION OF TECHNOLOGY**  
15 **TRANSFER ACTIVITIES.**

16 (a) **TECHNOLOGY TRANSFER COORDINATOR.**—The  
17 Secretary shall appoint a Technology Transfer Coordi-  
18 nator to perform oversight of and policy development for  
19 technology transfer activities at the Department. The  
20 Technology Transfer Coordinator shall coordinate the ac-  
21 tivities of the Technology Partnerships Working Group,  
22 and shall oversee the expenditure of funds allocated to the  
23 Technology Partnership Working Group.

24 (b) **TECHNOLOGY PARTNERSHIP WORKING**  
25 **GROUP.**—The Secretary shall establish a Technology

1 Partnership Working Group, which shall consist of rep-  
2 resentatives of the National Laboratories and single-pur-  
3 pose research facilities, to—

4           (1) coordinate technology transfer activities oc-  
5 ccurring at National Laboratories and single-purpose  
6 research facilities;

7           (2) exchange information about technology  
8 transfer practices; and

9           (3) develop and disseminate to the public and  
10 prospective technology partners information about  
11 opportunities and procedures for technology transfer  
12 with the Department.

13 **SEC 1408. TECHNOLOGY INFRASTRUCTURE PROGRAM.**

14           (a) ESTABLISHMENT.—The Secretary shall establish  
15 a Technology Infrastructure Program in accordance with  
16 this section.

17           (b) PURPOSE.—The purpose of the Technology Infra-  
18 structure Program shall be to improve the ability of Na-  
19 tional Laboratories or single-purpose research facilities to  
20 support departmental missions by—

21           (1) stimulating the development of technology  
22 clusters that can support departmental missions at  
23 the National Laboratories or single-purpose research  
24 facilities;

1           (2) improving the ability of National Labora-  
2           tories or single-purpose research facilities to leverage  
3           and benefit from commercial research, technology,  
4           products, processes, and services; and

5           (3) encouraging the exchange of scientific and  
6           technological expertise between National Labora-  
7           tories or single-purpose research facilities and—

8                   (A) institutions of higher education,

9                   (B) technology-related business concerns,

10                  (C) nonprofit institutions, and

11                  (D) agencies of State, tribal, or local gov-  
12                  ernments,

13           that can support departmental missions at the Na-  
14           tional Laboratories and single-purpose research fa-  
15           cilities.

16           (c) PROJECTS.—The Secretary shall authorize the  
17           Director of each National Laboratory or facility to imple-  
18           ment the Technology Infrastructure Program at such Na-  
19           tional Laboratory or single-purpose research facility  
20           through projects that meet the requirements of sub-  
21           sections (d) and (e).

22           (d) PROGRAM REQUIREMENTS.—Each project funded  
23           under this section shall meet the following requirements:

24                   (1) MINIMUM PARTICIPANTS.—Each project  
25                   shall at a minimum include—

1 (A) a National Laboratory or single-pur-  
2 pose research facility; and

3 (B) one of the following entities—

4 (i) a business,

5 (ii) an institution of higher education,

6 (iii) a nonprofit institution, or

7 (iv) an agency of a State, local, or  
8 tribal government.

9 (2) COST SHARING.—

10 (A) MINIMUM AMOUNT.—Not less than 50  
11 percent of the costs of each project funded  
12 under this section shall be provided from non-  
13 Federal sources.

14 (B) QUALIFIED FUNDING AND RE-  
15 SOURCES.—(i) The calculation of costs paid by  
16 the non-Federal sources to a project shall in-  
17 clude cash, personnel, services, equipment, and  
18 other resources expended on the project.

19 (ii) Independent research and development  
20 expenses of government contractors that qualify  
21 for reimbursement under section 31–205–18(e)  
22 of the Federal Acquisition Regulations issued  
23 pursuant to section 25(c)(1) of the Office of  
24 Federal Procurement Policy Act (41 U.S.C.  
25 421(c)(1)) may be credited towards costs paid



1 by non-Federal sources to a project, if the ex-  
2 penses meet the other requirements of this sec-  
3 tion.

4 (iii) No funds or other resources expended  
5 either before the start of a project under this  
6 section or outside the project's scope of work  
7 shall be credited toward the costs paid by the  
8 non-Federal sources to the project.

9 (3) COMPETITIVE SELECTION.—All projects in  
10 which a party other than the Department, a Na-  
11 tional Laboratory, or a single-purpose research facil-  
12 ity receives funding under this section shall, to the  
13 extent practicable, be competitively selected by the  
14 National Laboratory or facility using procedures de-  
15 termined to be appropriate by the Secretary.

16 (4) ACCOUNTING STANDARDS.—Any participant  
17 that receives funds under this section, other than a  
18 National Laboratory or single-purpose research facil-  
19 ity, may use generally accepted accounting principles  
20 for maintaining accounts, books, and records relat-  
21 ing to the project.

22 (5) LIMITATIONS.—No Federal funds shall be  
23 made available under this section for—

24 (A) construction; or

25 (B) any project for more than five years.

1 (e) SELECTION CRITERIA.—

2 (1) THRESHOLD FUNDING CRITERIA.—The Sec-  
3 retary shall allocate funds under this section only if  
4 the Director of the National Laboratory or single-  
5 purpose research facility managing the project deter-  
6 mines that the project is likely to improve the ability  
7 of the National Laboratory or single-purpose re-  
8 search facility to achieve technical success in meet-  
9 ing departmental missions.

10 (2) ADDITIONAL CRITERIA.—The Secretary  
11 shall require the Director of the National Labora-  
12 tory or single-purpose research facility managing a  
13 project under this section to consider the following  
14 criteria in selecting a project to receive Federal  
15 funds—

16 (A) the potential of the project to succeed,  
17 based on its technical merit, team members,  
18 management approach, resources, and project  
19 plan;

20 (B) the potential of the project to promote  
21 the development of a commercially sustainable  
22 technology cluster, which will derive most of the  
23 demand for its products or services from the  
24 private sector, and which will support depart-

1           mental missions at the participating National  
2           Laboratory or single-purpose research facility;

3           (C) the potential of the project to promote  
4           the use of commercial research, technology,  
5           products, processes, and services by the partici-  
6           pating National Laboratory or single-purpose  
7           research facility to achieve its departmental  
8           mission or the commercial development of tech-  
9           nological innovations made at the participating  
10          National Laboratory or single-purpose research  
11          facility;

12          (D) the commitment shown by non-Federal  
13          organizations to the project, based primarily on  
14          the nature and amount of the financial and  
15          other resources they will risk on the project;

16          (E) the extent to which the project involves  
17          a wide variety and number of institutions of  
18          higher education, nonprofit institutions, and  
19          technology-related business concerns that can  
20          support the missions of the participating Na-  
21          tional Laboratory or single-purpose research fa-  
22          cility and that will make substantive contribu-  
23          tions to achieving the goals of the project;

24          (F) the extent of participation in the  
25          project by agencies of State, tribal, or local gov-

1 ernments that will make substantive contribu-  
2 tions to achieving the goals of the project;

3 (G) the extent to which the project focuses  
4 on promoting the development of technology-re-  
5 lated business concerns that are small business  
6 concerns or involves such small business con-  
7 cerns substantively in the project; and

8 (H) such other criteria as the Secretary  
9 determines to be appropriate.

10 (f) REPORT TO CONGRESS.—Not later than January  
11 1, 2004, the Secretary shall report to Congress on whether  
12 the Technology Infrastructure Program should be contin-  
13 ued and, if so, how the program should be managed.

14 (g) DEFINITIONS.—In this section:

15 (1) TECHNOLOGY CLUSTER.—The term “tech-  
16 nology cluster” means a concentration of—

17 (A) technology-related business concerns;

18 (B) institutions of higher education; or

19 (C) other nonprofit institutions,

20 that reinforce each other’s performance in the areas  
21 of technology development through formal or infor-  
22 mal relationships.

23 (2) TECHNOLOGY-RELATED BUSINESS CON-  
24 CERN.—The term “technology-related business con-  
25 cern” means a for-profit corporation, company, asso-

1        ciation, firm, partnership, or small business concern  
2        that—

3                (A) conducts scientific or engineering re-  
4                search,

5                (B) develops new technologies,

6                (C) manufactures products based on new  
7                technologies, or

8                (D) performs technological services.

9        (h) AUTHORIZATION OF APPROPRIATIONS.—There  
10       are authorized to be appropriated to the Secretary for ac-  
11       tivities under this section \$10,000,000 for each of fiscal  
12       years 2003 and 2004.

13       **SEC. 1409. SMALL BUSINESS ADVOCACY AND ASSISTANCE.**

14        (a) SMALL BUSINESS ADVOCATE.—The Secretary  
15       shall require the Director of each National Laboratory,  
16       and may require the Director of a single-purpose research  
17       facility, to appoint a small business advocate to—

18                (1) increase the participation of small business  
19                concerns, including socially and economically dis-  
20                advantaged small business concerns, in procurement,  
21                collaborative research, technology licensing, and  
22                technology transfer activities conducted by the Na-  
23                tional Laboratory or single-purpose research facility;

24                (2) report to the Director of the National Lab-  
25                oratory or single-purpose research facility on the ac-

1 tual participation of small business concerns in pro-  
2 curement and collaborative research along with rec-  
3 ommendations, if appropriate, on how to improve  
4 participation;

5 (3) make available to small business concerns  
6 training, mentoring, and clear, up-to-date informa-  
7 tion on how to participate in the procurement and  
8 collaborative research, including how to submit effec-  
9 tive proposals;

10 (4) increase the awareness inside the National  
11 Laboratory or single-purpose research facility of the  
12 capabilities and opportunities presented by small  
13 business concerns; and

14 (5) establish guidelines for the program under  
15 subsection (b) and report on the effectiveness of  
16 such program to the Director of the National Lab-  
17 oratory or single-purpose research facility.

18 (b) ESTABLISHMENT OF SMALL BUSINESS ASSIST-  
19 ANCE PROGRAM.—The Secretary shall require the Direc-  
20 tor of each National Laboratory, and may require the di-  
21 rector of a single-purpose research facility, to establish a  
22 program to provide small business concerns—

23 (1) assistance directed at making them more ef-  
24 fective and efficient subcontractors or suppliers to

1 the National Laboratory or single-purpose research  
2 facility; or

3 (2) general technical assistance, the cost of  
4 which shall not exceed \$10,000 per instance of as-  
5 sistance, to improve the small business concern's  
6 products or services.

7 (c) USE OF FUNDS.—None of the funds expended  
8 under subsection (b) may be used for direct grants to the  
9 small business concerns.

10 (d) DEFINITIONS.—In this section:

11 (1) SMALL BUSINESS CONCERN.—The term  
12 “small business concern” has the meaning given  
13 such term in section 3 of the Small Business Act  
14 (15 U.S.C. 632).

15 (2) SOCIALLY AND ECONOMICALLY DISADVAN-  
16 TAGED SMALL BUSINESS CONCERNS.—The term “so-  
17 cially and economically disadvantaged small business  
18 concerns” has the meaning given such term in sec-  
19 tion 8(a)(4) of the Small Business Act (15 U.S.C.  
20 637(a)(4)).

21 **SEC. 1410. OTHER TRANSACTIONS.**

22 (a) IN GENERAL.—Section 646 of the Department of  
23 Energy Organization Act (42 U.S.C. 7256) is amended  
24 by adding at the end the following:

1           “(g) OTHER TRANSACTIONS AUTHORITY.—(1) In ad-  
2 dition to other authorities granted to the Secretary to  
3 enter into procurement contracts, leases, cooperative  
4 agreements, grants, and other similar arrangements, the  
5 Secretary may enter into other transactions with public  
6 agencies, private organizations, or persons on such terms  
7 as the Secretary may deem appropriate in furtherance of  
8 basic, applied, and advanced research functions now or  
9 hereafter vested in the Secretary. Such other transactions  
10 shall not be subject to the provisions of section 9 of the  
11 Federal Nonnuclear Energy Research and Development  
12 Act of 1974 (42 U.S.C. 5908).

13           “(2)(A) The Secretary of Energy shall ensure that—

14                 “(i) to the maximum extent practicable, no  
15 transaction entered into under paragraph (1) pro-  
16 vides for research that duplicates research being  
17 conducted under existing programs carried out by  
18 the Department of Energy; and

19                 “(ii) to the extent that the Secretary determines  
20 practicable, the funds provided by the Government  
21 under a transaction authorized by paragraph (1) do  
22 not exceed the total amount provided by other par-  
23 ties to the transaction.

24           “(B) A transaction authorized by paragraph (1) may  
25 be used for a research project when the use of a standard



1 contract, grant, or cooperative agreement for such project  
2 is not feasible or appropriate.

3 “(3)(A) The Secretary shall not disclose any trade  
4 secret or commercial or financial information submitted  
5 by a non-Federal entity under paragraph (1) that is privi-  
6 leged and confidential.

7 “(B) The Secretary shall not disclose, for five years  
8 after the date the information is received, any other infor-  
9 mation submitted by a non-Federal entity under para-  
10 graph (1), including any proposal, proposal abstract, docu-  
11 ment supporting a proposal, business plan, or technical  
12 information that is privileged and confidential.

13 “(C) The Secretary may protect from disclosure, for  
14 up to five years, any information developed pursuant to  
15 a transaction under paragraph (1) that would be protected  
16 from disclosure under section 552(b)(4) of title 5, United  
17 States Code, if obtained from a person other than a Fed-  
18 eral agency.”.

19 (b) IMPLEMENTATION.—Not later than six months  
20 after the date of enactment of this section, the Depart-  
21 ment shall establish guidelines for the use of other trans-  
22 actions.

1 **SEC. 1411. MOBILITY OF SCIENTIFIC AND TECHNICAL PER-**  
2 **SONNEL.**

3 Not later than two years after the enactment of this  
4 section, the Secretary, acting through the Technology  
5 Transfer Coordinator under section 1407, shall determine  
6 whether each contractor operating a National Laboratory  
7 or single-purpose research facility has policies and proce-  
8 dures that do not create disincentives to the transfer of  
9 scientific and technical personnel among the contractor-  
10 operated National Laboratories or contractor-operated  
11 single-purpose research facilities.

12 **SEC. 1412. NATIONAL ACADEMY OF SCIENCES REPORT.**

13 Within 90 days after the date of enactment of this  
14 Act, the Secretary shall contract with the National Acad-  
15 emy of Sciences to—

16 (1) conduct a study on the obstacles to accel-  
17 erating the innovation cycle for energy technology,  
18 and

19 (2) report to the Congress recommendations for  
20 shortening the cycle of research, development, and  
21 deployment.

22 **SEC. 1413. REPORT ON TECHNOLOGY READINESS AND BAR-**  
23 **RIERS TO TECHNOLOGY TRANSFER.**

24 (a) IN GENERAL.—The Secretary, acting through the  
25 Technology Partnership Working Group and in consulta-

1 tion with representatives of affected industries, univer-  
2 sities, and small business concerns, shall—

3 (1) assess the readiness for technology transfer  
4 of energy technologies developed through projects  
5 funded from appropriations authorized under sub-  
6 titles A through D of title XIV, and

7 (2) identify barriers to technology transfer and  
8 cooperative research and development agreements  
9 between the Department or a National Laboratory  
10 and a non- federal person; and

11 (3) make recommendations for administrative  
12 or legislative actions needed to reduce or eliminate  
13 such barriers.

14 (b) REPORT.—The Secretary provide a report to Con-  
15 gress and the President on activities carried out under this  
16 section not later than one year after the date of enactment  
17 of this section, and shall update such report on a biennial  
18 basis, taking into account progress toward eliminating  
19 barriers to technology transfer identified in previous re-  
20 ports under this section.

## 21 **TITLE XV—PERSONNEL AND** 22 **TRAINING**

### 23 **SEC. 1501. WORKFORCE TRENDS AND TRAINEESHIP** 24 **GRANTS.**

25 (a) WORKFORCE TRENDS.—

1           (1) MONITORING.—The Secretary of Energy (in  
2 this title referred to as the “Secretary”), acting  
3 through the Administrator of the Energy Informa-  
4 tion Administration, in consultation with the Sec-  
5 retary of Labor, shall monitor trends in the work-  
6 force of skilled technical personnel supporting energy  
7 technology industries, including renewable energy in-  
8 dustries, companies developing and commercializing  
9 devices to increase energy-efficiency, the oil and gas  
10 industry, nuclear power industry, the coal industry,  
11 and other industrial sectors as the Secretary may  
12 deem appropriate.

13           (2) ANNUAL REPORTS.—The Administrator of  
14 the Energy Information Administration shall include  
15 statistics on energy industry workforce trends in the  
16 annual reports of the Energy Information Adminis-  
17 tration.

18           (3) SPECIAL REPORTS.—The Secretary shall re-  
19 port to the appropriate committees of Congress  
20 whenever the Secretary determines that significant  
21 shortfalls of technical personnel in one or more en-  
22 ergy industry segments are forecast or have oc-  
23 curred.

24           (b) TRAINEESHIP GRANTS FOR TECHNICALLY  
25 SKILLED PERSONNEL.—

1           (1) GRANT PROGRAMS.—The Secretary shall es-  
2           tablish grant programs in the appropriate offices of  
3           the Department to enhance training of technically  
4           skilled personnel for which a shortfall is determined  
5           under subsection (a).

6           (2) ELIGIBLE INSTITUTIONS.—As determined  
7           by the Secretary to be appropriate to the particular  
8           workforce shortfall, the Secretary shall make grants  
9           under paragraph (1) to—

10                   (A) an institution of higher education;

11                   (B) a postsecondary educational institution  
12                   providing vocational and technical education  
13                   (within the meaning given those terms in sec-  
14                   tion 3 of the Carl D. Perkins Vocational and  
15                   Technical Education Act of 1998 (20 U.S.C.  
16                   2302));

17                   (C) appropriate agencies of State, local, or  
18                   tribal governments; or

19                   (D) joint labor and management training  
20                   organizations with state or federally recognized  
21                   apprenticeship programs and other employee-  
22                   based training organizations as the Secretary  
23                   considers appropriate.

24           (c) DEFINITION.—For purposes of this section, the  
25           term “skilled technical personnel” means journey and ap-

1 prentice level workers who are enrolled in or have com-  
2 pleted a state or federally recognized apprenticeship pro-  
3 gram and other skilled workers in energy technology in-  
4 dustries.

5 (d) AUTHORIZATION OF APPROPRIATIONS.—From  
6 amounts authorized under section 1241(c), there are au-  
7 thorized to be appropriated to the Secretary for activities  
8 under this section such sums as may be necessary for each  
9 fiscal year.

10 **SEC. 1502. POSTDOCTORAL AND SENIOR RESEARCH FEL-**  
11 **LOWSHIPS IN ENERGY RESEARCH.**

12 (a) POSTDOCTORAL FELLOWSHIPS.—The Secretary  
13 shall establish a program of fellowships to encourage out-  
14 standing young scientists and engineers to pursue  
15 postdoctoral research appointments in energy research  
16 and development at institutions of higher education of  
17 their choice. In establishing a program under this sub-  
18 section, the Secretary may enter into appropriate arrange-  
19 ments with the National Academy of Sciences to help ad-  
20 minister the program.

21 (b) DISTINGUISHED SENIOR RESEARCH FELLOW-  
22 SHIPS.—The Secretary shall establish a program of fellow-  
23 ships to allow outstanding senior researchers in energy re-  
24 search and development and their research groups to ex-  
25 plore research and development topics of their choosing

1 for a fixed period of time. Awards under this program  
2 shall be made on the basis of past scientific or technical  
3 accomplishment and promise for continued accomplish-  
4 ment during the period of support, which shall not be less  
5 than 3 years.

6 (c) AUTHORIZATION OF APPROPRIATIONS.—From  
7 amounts authorized under section 1241(c), there are au-  
8 thorized to be appropriated to the Secretary for activities  
9 under this section such sums as may be necessary for each  
10 fiscal year.

11 **SEC. 1503. TRAINING GUIDELINES FOR ELECTRIC ENERGY**  
12 **INDUSTRY PERSONNEL.**

13 (a) MODEL GUIDELINES.—The Secretary shall, in co-  
14 operation with electric generation, transmission, and dis-  
15 tribution companies and recognized representatives of em-  
16 ployees of those entities, develop model employee training  
17 guidelines to support electric supply system reliability and  
18 safety.

19 (b) CONTENT OF GUIDELINES.—The guidelines  
20 under this section shall include—

21 (1) requirements for worker training, com-  
22 petency, and certification, developed using criteria  
23 set forth by the Utility Industry Group recognized  
24 by the National Skill Standards Board; and





1 (5) other entities as appropriate.

2 **SEC. 1505. IMPROVED ACCESS TO ENERGY-RELATED SCI-**  
3 **ENTIFIC AND TECHNICAL CAREERS.**

4 (a) DEPARTMENT OF ENERGY SCIENCE EDUCATION  
5 PROGRAMS.—Section 3164 of the Department of Energy  
6 Science Education Enhancement Act (42 U.S.C. 7381a)  
7 is amended by adding at the end the following:

8 “(c) PROGRAMS FOR WOMEN AND MINORITY STU-  
9 DENTS.—In carrying out a program under subsection (a),  
10 the Secretary shall give priority to activities that are de-  
11 signed to encourage women and minority students to pur-  
12 sue scientific and technical careers.”.

13 (b) PARTNERSHIPS WITH HISTORICALLY BLACK  
14 COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING IN-  
15 STITUTIONS, AND TRIBAL COLLEGES.—The Department  
16 of Energy Science Education Enhancement Act (42  
17 U.S.C. 7381 et seq.) is amended—

18 (1) by redesignating sections 3167 and 3168 as  
19 sections 3168 and 3169, respectively; and

20 (2) by inserting after section 3166 the fol-  
21 lowing:

1 **“SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK**  
2 **COLLEGES AND UNIVERSITIES, HISPANIC-**  
3 **SERVING INSTITUTIONS, AND TRIBAL COL-**  
4 **LEGES.**

5 “(a) DEFINITIONS.—In this section:

6 “(1) HISPANIC-SERVING INSTITUTION.—The  
7 term ‘Hispanic-serving institution’ has the meaning  
8 given the term in section 502(a) of the Higher Edu-  
9 cation Act of 1965 (20 U.S.C. 1101a(a)).

10 “(2) HISTORICALLY BLACK COLLEGE OR UNI-  
11 VERSITY.—The term ‘historically Black college or  
12 university’ has the meaning given the term ‘part B  
13 institution’ in section 322 of the Higher Education  
14 Act of 1965 (20 U.S.C. 1061).

15 “(3) NATIONAL LABORATORY.—The term ‘Na-  
16 tional Laboratory’ has the meaning given the term  
17 in section 1203 of the Energy Science and Tech-  
18 nology Enhancement Act of 2002.

19 “(4) SCIENCE FACILITY.—The term ‘science fa-  
20 cility’ has the meaning given the term ‘single-pur-  
21 pose research facility’ in section 1401 of the Energy  
22 Science and Technology Enhancement Act of 2002.

23 “(5) TRIBAL COLLEGE.—The term ‘tribal col-  
24 lege’ has the meaning given the term ‘tribally con-  
25 trolled college or university’ in section 2(a) of the

1 Tribally Controlled College or University Assistance  
2 Act of 1978 (25 U.S.C. 1801(a)).

3 “(b) EDUCATION PARTNERSHIP.—

4 “(1) IN GENERAL.—The Secretary shall direct  
5 the Director of each National Laboratory, and may  
6 direct the head of any science facility, to increase  
7 the participation of historically Black colleges or uni-  
8 versities, Hispanic-serving institutions, or tribal col-  
9 leges in activities that increase the capacity of the  
10 historically Black colleges or universities, Hispanic-  
11 serving institutions, or tribal colleges to train per-  
12 sonnel in science or engineering.

13 “(2) ACTIVITIES.—An activity under paragraph  
14 (1) may include—

15 “(A) collaborative research;

16 “(B) a transfer of equipment;

17 “(C) training of personnel at a National  
18 Laboratory or science facility; and

19 “(D) a mentoring activity by personnel at  
20 a National Laboratory or science facility.

21 “(c) REPORT.—Not later than 2 years after the date  
22 of enactment of this section, the Secretary shall submit  
23 to the Committee on Science of the House of Representa-  
24 tives and the Committee on Energy and Natural Re-

1 sources of the Senate a report on the activities carried  
 2 out under this section.”.

3       **DIVISION F—TECHNOLOGY**  
 4       **ASSESSMENT AND STUDIES**  
 5       **TITLE XVI—TECHNOLOGY**  
 6       **ASSESSMENT**

7       **SEC. 1601. NATIONAL SCIENCE AND TECHNOLOGY ASSESS-**  
 8       **MENT SERVICE.**

9       The National Science and Technology Policy, Organi-  
 10 zation, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.)  
 11 is amended by adding at the end the following:

12       **“TITLE VII—NATIONAL SCIENCE**  
 13       **AND TECHNOLOGY ASSESS-**  
 14       **MENT SERVICE**

15       **“SEC. 701. ESTABLISHMENT.**

16       “‘There is hereby created a Science and Technology  
 17 Assessment Service (hereinafter referred to as the ‘Serv-  
 18 ice’), which shall be within and responsible to the legisla-  
 19 tive branch of the Government.

20       **“SEC. 702. COMPOSITION.**

21       “‘The Service shall consist of a Science and Tech-  
 22 nology Board (hereinafter referred to as the ‘Board’)  
 23 which shall formulate and promulgate the policies of the  
 24 Service, and a Director who shall carry out such policies  
 25 and administer the operations of the Service.

1 **“SEC. 703. FUNCTIONS AND DUTIES.**

2 “The Service shall coordinate and develop informa-  
3 tion for Congress relating to the uses and application of  
4 technology to address current national science and tech-  
5 nology policy issues. In developing such technical assess-  
6 ments for Congress, the Service shall utilize, to the extent  
7 practicable, experts selected in coordination with the Na-  
8 tional Research Council.

9 **“SEC. 704. INITIATION OF ACTIVITIES.**

10 “Science and technology assessment activities under-  
11 taken by the Service may be initiated upon the request  
12 of—

13 “(1) the Chairman of any standing, special, or  
14 select committee of either House of the Congress, or  
15 of any joint committee of the Congress, acting for  
16 himself or at the request of the ranking minority  
17 member or a majority of the committee members;

18 “(2) the Board; or

19 “(3) the Director.

20 **“SEC. 705. ADMINISTRATION AND SUPPORT.**

21 “The Director of the Science and Technology Assess-  
22 ment Service shall be appointed by the Board and shall  
23 serve for a term of 6 years unless sooner removed by the  
24 Board. The Director shall receive basic pay at the rate  
25 provided for level III of the Executive Schedule under sec-  
26 tion 5314 of title 5, United States Code. The Director

1 shall contract for administrative support from the Library  
2 of Congress.

3 **“SEC. 706. AUTHORITY.**

4 “The Service shall have the authority, within the lim-  
5 its of available appropriations, to do all things necessary  
6 to carry out the provisions of this section, including, but  
7 without being limited to, the authority to—

8 “(1) make full use of competent personnel and  
9 organizations outside the Office, public or private,  
10 and form special ad hoc task forces or make other  
11 arrangements when appropriate;

12 “(2) enter into contracts or other arrangements  
13 as may be necessary for the conduct of the work of  
14 the Office with any agency or instrumentality of the  
15 United States, with any State, territory, or posses-  
16 sion or any political subdivision thereof, or with any  
17 person, firm, association, corporation, or educational  
18 institution, with or without reimbursement, without  
19 performance or other bonds, and without regard to  
20 section 3709 of the Revised Statutes (41 U.S.C. 51);

21 “(3) accept and utilize the services of voluntary  
22 and uncompensated personnel necessary for the con-  
23 duct of the work of the Service and provide trans-  
24 portation and subsistence as authorized by section

1 5703 of title 5, United States Code, for persons  
2 serving without compensation; and

3 “(4) prescribe such rules and regulations as it  
4 deems necessary governing the operation and organi-  
5 zation of the Service.

6 **“SEC. 707. BOARD.**

7 “The Board shall consist of 13 members as follows—

8 “(1) 6 Members of the Senate, appointed by the  
9 President pro tempore of the Senate, 3 from the ma-  
10 jority party and 3 from the minority party;

11 “(2) 6 Members of the House of Representa-  
12 tives appointed by the Speaker of the House of Rep-  
13 resentatives, 3 from the majority party and 3 from  
14 the minority party; and

15 “(3) the Director, who shall not be a voting  
16 member.

17 **“SEC. 708. REPORT TO CONGRESS.**

18 “The Service shall submit to the Congress an annual  
19 report which shall include, but not be limited to, an eval-  
20 uation of technology assessment techniques and identifica-  
21 tion, insofar as may be feasible, of technological areas and  
22 programs requiring future analysis. The annual report  
23 shall be submitted not later than March 15 of each year.

1 **“SEC. 709. AUTHORIZATION OF APPROPRIATIONS.**

2 “There are authorized to be appropriated to the Serv-  
3 ice such sums as are necessary to fulfill the requirements  
4 of this title.”.

5 **TITLE XVII—STUDIES**

6 **SEC. 1701. REGULATORY REVIEWS.**

7 (a) REGULATORY REVIEWS.—Not later than one year  
8 after the date of enactment of this section and every five  
9 years thereafter, each Federal agency shall review relevant  
10 regulations and standards to identify—

11 (1) existing regulations and standards that act  
12 as barriers to—

13 (A) market entry for emerging energy  
14 technologies (including fuel cells, combined heat  
15 and power, distributed power generation, and  
16 small-scale renewable energy), and

17 (B) market development and expansion for  
18 existing energy technologies (including com-  
19 bined heat and power, small-scale renewable en-  
20 ergy, and energy recovery in industrial proc-  
21 esses), and

22 (2) actions the agency is taking or could take  
23 to—

24 (A) remove barriers to market entry for  
25 emerging energy technologies and to market ex-  
26 pansion for existing technologies,



1 (B) increase energy efficiency and con-  
2 servation, or

3 (C) encourage the use of new and existing  
4 processes to meet energy and environmental  
5 goals.

6 (b) REPORT TO CONGRESS.—Not later than 18  
7 months after the date of enactment of this section, and  
8 every five years thereafter, the Director of the Office of  
9 Science and Technology Policy shall report to the Con-  
10 gress on the results of the agency reviews conducted under  
11 subsection (a).

12 (c) CONTENTS OF THE REPORT.—The report shall—

13 (1) identify all regulatory barriers to—

14 (A) the development and commercialization  
15 of emerging energy technologies and processes,  
16 and

17 (B) the further development and expansion  
18 of existing energy conservation technologies and  
19 processes,

20 (2) actions taken, or proposed to be taken, to  
21 remove such barriers, and

22 (3) recommendations for changes in laws or  
23 regulations that may be needed to—

24 (A) expedite the siting and development of  
25 energy production and distribution facilities,

1 (B) encourage the adoption of energy effi-  
2 ciency and process improvements,

3 (C) facilitate the expanded use of existing  
4 energy conservation technologies, and

5 (D) reduce the environmental impacts of  
6 energy facilities and processes through trans-  
7 parent and flexible compliance methods.

8 **SEC. 1702. ASSESSMENT OF DEPENDENCE OF HAWAII ON**  
9 **OIL.**

10 (a) **STUDY.**—Not later than 60 days after the enact-  
11 ment of this Act, the Secretary of Energy shall initiate  
12 a study that assesses the economic risk posed by the de-  
13 pendence of Hawaii on oil as the principal source of en-  
14 ergy.

15 (b) **SCOPE OF THE STUDY.**—The Secretary shall  
16 assess—

17 (1) the short- and long-term threats to the  
18 economy of Hawaii posed by insecure supply and  
19 volatile prices;

20 (2) the impact on availability and cost of re-  
21 fined petroleum products if oil-fired electric genera-  
22 tion is displaced by other sources;

23 (3) the feasibility of increasing the contribution  
24 of renewable sources to the overall energy require-  
25 ments of Hawaii; and

1           (4) the feasibility of using liquid natural gas as  
2           a source of energy to supplement oil.

3           (c) REPORT.—Not later than 300 days after the date  
4 of enactment of this section, the Secretary shall prepare,  
5 in consultation with appropriate agencies of the State of  
6 Hawaii, industry representatives, and citizen groups, and  
7 shall submit to Congress a report detailing the Secretary’s  
8 findings, conclusions, and recommendations. The report  
9 shall include—

10           (1) a detailed analysis of the availability, eco-  
11 nomics, infrastructure needs, and recommendations  
12 to increase the contribution of renewable energy  
13 sources to the overall energy requirements of Ha-  
14 waii; and

15           (2) a detailed analysis of the use of liquid nat-  
16 ural gas, including—

17                   (A) the availability of supply,

18                   (B) economics,

19                   (C) environmental and safety consider-  
20 ations,

21                   (D) technical limitations,

22                   (E) infrastructure and transportation re-  
23 quirements, and

24                   (F) siting and facility configurations,  
25 including—

- 1 (i) onshore and offshore alternatives,  
2 and  
3 (ii) environmental and safety consider-  
4 ations of both onshore and offshore alter-  
5 natives.

6 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
7 are authorized to be appropriated to the Secretary of En-  
8 ergy such sums as may be necessary to carry out the pur-  
9 poses of this section.

10 **SEC. 1703. STUDY OF SITING AN ELECTRIC TRANSMISSION**  
11 **SYSTEM ON AMTRAK RIGHT-OF-WAY.**

12 (a) STUDY.—The Secretary of Energy shall contract  
13 with Amtrak to conduct a study of the feasibility of build-  
14 ing and operating a new electric transmission system on  
15 the Amtrak right-of-way in the Northeast Corridor.

16 (b) SCOPE OF THE STUDY.—The study shall focus  
17 on siting the new system on the Amtrak right-of-way with-  
18 in the Northeastern Corridor between Washington, D.C.,  
19 and New Rochelle, New York, including the Amtrak right-  
20 of-way between Philadelphia, Pennsylvania and Harris-  
21 burg, Pennsylvania.

22 (c) CONTENTS OF THE STUDY.—The study shall  
23 consider—

1           (1) alternative geographic configuration of a  
2 new electronic transmission system on the Amtrak  
3 right-of-way;

4           (2) alternative technologies for the system;

5           (3) the estimated costs of building and oper-  
6 ating each alternative;

7           (4) alternative means of financing the system;

8           (5) the environmental risks and benefits of  
9 building and operating each alternative as well as  
10 environmental risks and benefits of building and op-  
11 erating the system on the Northeast Corridor rather  
12 than at other locations;

13          (6) engineering and technological obstacles to  
14 building and operating each alternative; and

15          (7) the extent to which each alternative would  
16 enhance the reliability of the electric transmission  
17 grid and enhance competition in the sale of electric  
18 energy at wholesale within the Northeast Corridor.

19       (d) RECOMMENDATIONS.—The study shall rec-  
20 ommend the optimal geographic configuration, the optimal  
21 technology, the optimal engineering design, and the opti-  
22 mal means of financing for the new system from among  
23 the alternatives considered.

24       (e) REPORT.—The Secretary of Energy shall submit  
25 the completed study to the Committee on Energy and Nat-

1 ural Resources of the United States Senate and the Com-  
 2 mittee on Energy and Commerce of the House of Rep-  
 3 resentatives not later than 270 days after the date of en-  
 4 actment of this section.

5 (f) DEFINITIONS.—For purposes of this section—

6 (1) the term “Amtrak” means the National  
 7 Railroad Passenger Corporation established under  
 8 chapter 243 of title 49, United States Code; and

9 (2) the term “Northeast Corridor” shall have  
 10 the meaning given such term under section 24102(7)  
 11 of title 49, United States Code.

12 **DIVISION G—ENERGY**  
 13 **INFRASTRUCTURE SECURITY**  
 14 **TITLE XVIII—CRITICAL ENERGY**  
 15 **INFRASTRUCTURE**  
 16 **Subtitle A—Department of Energy**  
 17 **Programs**

18 **SEC. 1801. DEFINITIONS.**

19 In this title:

20 (1) **CRITICAL ENERGY INFRASTRUCTURE.**—

21 (A) **IN GENERAL.**—The term “critical en-  
 22 ergy infrastructure” means a physical or cyber-  
 23 based system or service for—

24 (i) the generation, transmission, or  
 25 distribution of electric energy; or

1 (ii) the production, refining, or stor-  
2 age of petroleum, natural gas, or petro-  
3 leum product—

4 the incapacity or destruction of which would  
5 have a debilitating impact on the defense or  
6 economic security of the United States.

7 (B) EXCLUSION.—The term shall not in-  
8 clude a facility that is licensed by the Nuclear  
9 Regulatory Commission under section 103 or  
10 104 b. of the Atomic Energy Act of 1954 (42  
11 U.S.C. 2133 and 2134(b)).

12 (2) DEPARTMENT; NATIONAL LABORATORY;  
13 SECRETARY.—The terms “Department”, “National  
14 Laboratory”, and “Secretary” have the meaning  
15 given such terms in section 1203.

16 **SEC. 1802. ROLE OF THE DEPARTMENT OF ENERGY.**

17 Section 102 of the Department of Energy Organiza-  
18 tion Act (42 U.S.C. 7112) is amended by adding at the  
19 end the following:

20 “(20) To ensure the safety, reliability, and se-  
21 curity of the nation’s energy infrastructure, and to  
22 respond to any threat to or disruption of such infra-  
23 structure, through activities including—

24 “(A) research and development;

1           “(B) financial assistance, technical assist-  
2           ance, and cooperative activities with States, in-  
3           dustry, and other interested parties; and

4           “(C) education and public outreach activi-  
5           ties.”.

6 **SEC. 1803. CRITICAL ENERGY INFRASTRUCTURE PRO-**  
7           **GRAMS.**

8           (a) PROGRAMS.—In addition to the authorities other-  
9           wise provided by law (including section 1261), the Sec-  
10          retary is authorized to establish programs of financial,  
11          technical, or administrative assistance to—

12           (1) enhance the security of critical energy infra-  
13          structure in the United States;

14           (2) develop and disseminate, in cooperation  
15          with industry, best practices for critical energy infra-  
16          structure assurance; and

17           (3) protect against, mitigate the effect of, and  
18          improve the ability to recover from disruptive inci-  
19          dents affecting critical energy infrastructure.

20          (b) REQUIREMENTS.—A program established under  
21          this section shall—

22           (1) be undertaken in consultation with the advi-  
23          sory committee established under section 1804;





1           (7) such other interests as the Secretary may  
2       deem appropriate.

3       (c) **EXPENSES.**—Members of the advisory committee  
4       established or utilized under subsection (a) shall serve  
5       without compensation, and shall be allowed travel ex-  
6       penses, including per diem in lieu of subsistence, at rates  
7       authorized for an employee of an agency under subchapter  
8       I of chapter 57 of title 5, United States Code, while away  
9       from the home or regular place of business of the member  
10      in the performance of the duties of the committee.

11 **SEC. 1805. BEST PRACTICES AND STANDARDS FOR ENERGY**  
12                                   **INFRASTRUCTURE SECURITY.**

13       The Secretary, in consultation with the advisory com-  
14      mittee under section 1804, shall enter into appropriate ar-  
15      rangements with one or more standard-setting organiza-  
16      tions, or similar organizations, to assist the development  
17      of industry best practices and standards for security re-  
18      lated to protecting critical energy infrastructure.

19                   **Subtitle B—Department of the**  
20                                   **Interior Programs**

21 **SEC. 1811. OUTER CONTINENTAL SHELF ENERGY INFRA-**  
22                                   **STRUCTURE SECURITY.**

23       (a) **DEFINITIONS.**—In this section:

1           (1) APPROVED STATE PLAN.—The term “ap-  
2           proved State plan” means a State plan approved by  
3           the Secretary under subsection (c)(3).

4           (2) COASTLINE.—The term “coastline” has the  
5           same meaning as the term “coast line” as defined  
6           in subsection 2(c) of the Submerged Lands Act (43  
7           U.S.C. 1301(c)).

8           (3) CRITICAL OCS ENERGY INFRASTRUCTURE  
9           FACILITY.—The term “OCS critical energy infra-  
10          structure facility” means—

11           (A) a facility located in an OCS Produc-  
12          tion State or in the waters of such State related  
13          to the production of oil or gas on the Outer  
14          Continental Shelf; or

15           (B) a related facility located in an OCS  
16          Production State or in the waters of such State  
17          that carries out a public service, transportation,  
18          or infrastructure activity critical to the oper-  
19          ation of an Outer Continental Shelf energy in-  
20          frastructure facility, as determined by the Sec-  
21          retary.

22          (4) DISTANCE.—The term “distance” means  
23          the minimum great circle distance, measured in stat-  
24          ute miles.

25          (5) LEASED TRACT.—

1 (A) IN GENERAL.—The term “leased  
2 tract” means a tract that—

3 (i) is subject to a lease under section  
4 6 or 8 of the Outer Continental Shelf  
5 Lands Act (43 U.S.C. 1335, 1337) for the  
6 purpose of drilling for, developing, and  
7 producing oil or natural gas resources; and

8 (ii) consists of a block, a portion of a  
9 block, a combination of blocks or portions  
10 of blocks, or a combination of portions of  
11 blocks, as—

12 (I) specified in the lease; and

13 (II) depicted on an outer Conti-  
14 nental Shelf official protraction dia-  
15 gram.

16 (B) EXCLUSION.—The term “leased tract”  
17 does not include a tract described in subpara-  
18 graph (A) that is located in a geographic area  
19 subject to a leasing moratorium on January 1,  
20 2001, unless the lease was in production on  
21 that date.

22 (6) OCS POLITICAL SUBDIVISION.—The term  
23 “OCS political subdivision” means a county, parish,  
24 borough or any equivalent subdivision of an OCS  
25 Production State all or part of which subdivision lies

1 within the coastal zone (as defined in section 304(1)  
2 of the Coastal Zone Management Act of 1972 (16  
3 U.S.C. 1453(1)).

4 (7) OCS PRODUCTION STATE.—The term “OCS  
5 Production State” means the State of—

6 (A) Alaska;

7 (B) Alabama;

8 (C) California;

9 (D) Florida;

10 (F) Louisiana;

11 (G) Mississippi; or

12 (H) Texas.

13 (8) PRODUCTION.—The term “production” has  
14 the meaning given the term in section 2 of the Outer  
15 Continental Shelf Lands Act (43 U.S.C. 1331).

16 (9) PROGRAM.—The term “program” means  
17 the Outer Continental Shelf Energy Infrastructure  
18 Security Program established under subsection (b).

19 (10) QUALIFIED OUTER CONTINENTAL SHELF  
20 REVENUES.—The term “qualified Outer Continental  
21 Shelf revenues” means all amounts received by the  
22 United States from each leased tract or portion of  
23 a leased tract lying seaward of the zone defined and  
24 governed by section 8(g) of the Outer Continental  
25 Shelf Lands Act (43 U.S.C. 1331 et seq.), or lying

1 within such zone but to which section 8(g) does not  
2 apply, the geographic center of which lies within a  
3 distance of 200 miles from any part of the coastline  
4 of any State, including bonus bids, rents, royalties  
5 (including payments for royalties taken in kind and  
6 sold), net profit share payments, and related late  
7 payment interest. Such term does not include any  
8 revenues from a leased tract or portion of a leased  
9 tract that is included within any area of the Outer  
10 Continental Shelf where a moratorium on new leas-  
11 ing was in effect as of January 1, 2001, unless the  
12 lease was issued prior to the establishment of the  
13 moratorium and was in production on January 1,  
14 2001.

15 (11) SECRETARY.—The term “Secretary”  
16 means the Secretary of the Interior.

17 (12) STATE PLAN.—The term “State plan”  
18 means a State plan described in subsection (b).

19 (b) ESTABLISHMENT.—The Secretary shall establish  
20 a program, to be known as the “Outer Continental Shelf  
21 Energy Infrastructure Security Program,” under which  
22 the Secretary shall provide funds to OCS Production  
23 States to implement approved State plans to provide secu-  
24 rity against hostile and natural threats to critical OCS en-  
25 ergy infrastructure facilities and support of any necessary

1 public service or transportation activities that are needed  
2 to maintain the safety and operation of critical energy in-  
3 frastructure activities. For purposes of this program, res-  
4 toration of any coastal wetland shall be considered to be  
5 an activity that secures critical OCS energy infrastructure  
6 facilities from a natural threat.

7 (c) STATE PLANS.—

8 (1) INITIAL PLAN.—Not later than 180 days  
9 after the date of enactment of this Act, to be eligible  
10 to receive funds under the program, the Governor of  
11 an OCS Production State shall submit to the Sec-  
12 retary a plan to provide security against hostile and  
13 natural threats to critical energy infrastructure fa-  
14 cilities in the OCS Production State and to support  
15 any of the necessary public service or transportation  
16 activities that are needed to maintain the safety and  
17 operation of critical energy infrastructure facilities.  
18 Such plan shall include

19 (A) the name of the State agency that will  
20 have the authority to represent and act for the  
21 State in dealing with the Secretary for purposes  
22 of this section;

23 (B) a program for the implementation of  
24 the plan which describes how the amounts pro-  
25 vided under this section will be used;

1           (C) a contact for each OCS political sub-  
2           division and description of how such political  
3           subdivisions will use amounts provided under  
4           this section, including a certification by the  
5           Governor that such uses are consistent with the  
6           requirements of this section; and

7           (D) Measures for taking into account other  
8           relevant Federal resources and programs.

9           (2) ANNUAL REVIEWS.—Not later than 1 year  
10          after the date of submission of the plan and annu-  
11          ally thereafter, the Governor of an OCS Production  
12          State shall—

13                 (A) review the approved State plan; and

14                 (B) submit to the Secretary any revised  
15          State plan resulting from the review.

16          (3) APPROVAL OF PLANS.—

17                 (A) IN GENERAL.—In consultation with  
18          appropriate Federal security officials and the  
19          Secretaries of Commerce and Energy, the Sec-  
20          retary shall—

21                         (i) approve each State plan; or

22                         (ii) recommend changes to the State  
23          plan.

24                 (B) RESUBMISSION OF STATE PLANS.—If  
25          the Secretary recommends changes to a State



1 plan under subparagraph (A)(ii), the Governor  
2 of the OCS Production State may resubmit a  
3 revised State plan to the Secretary for approval.

4 (4) AVAILABILITY OF PLANS.—The Secretary  
5 shall provide to Congress a copy of each approved  
6 State plan.

7 (5) CONSULTATION AND PUBLIC COMMENT.—

8 (A) CONSULTATION.—The Governor of an  
9 OCS Production State shall develop the State  
10 plan in consultation with Federal, State, and  
11 local law enforcement and public safety offi-  
12 cials, industry, Indian tribes, the scientific com-  
13 munity, and other persons as appropriate.

14 (B) PUBLIC COMMENT.—The Governor of  
15 an OCS Production State may solicit public  
16 comments on the State plan to the extent that  
17 the Governor determines to be appropriate.

18 (d) ALLOCATION OF AMOUNTS BY THE SEC-  
19 RETARY.—The Secretary shall allocate the amounts made  
20 available for the purposes of carrying out the program  
21 provided for by this section among OCS Production States  
22 as follows:

23 (1) 25 percent of the amounts shall be divided  
24 equally among OCS Production States; and

1           (2) 75 percent of the amounts shall be divided  
2           among OCS Production States on the basis of the  
3           proximity of each OCS Production State to offshore  
4           locations at which oil and gas are being produced.

5           (e) CALCULATION.—The amount for each OCS Pro-  
6           duction State under paragraph (d)(2) shall be calculated  
7           based on the ratio of qualified OCS revenues generated  
8           off the coastline of the OCS Production State to the quali-  
9           fied OCS revenues generated off the coastlines of all OCS  
10          Production States for the prior five-year period. Where  
11          there is more than one OCS Production State within 200  
12          miles of a leased tract, the amount of each OCS Produc-  
13          tion State's payment under paragraph (d)(2) for such  
14          leased tract shall be inversely proportional to the distance  
15          between the nearest point on the coastline of such State  
16          and the geographic center of each leased tract or portion  
17          of the leased tract (to the nearest whole mile) that is with-  
18          in 200 miles of that coastline, as determined by the Sec-  
19          retary. A leased tract or portion of a leased tract shall  
20          be excluded if the tract or portion is located in a geo-  
21          graphic area where a moratorium on new leasing was in  
22          effect on January 1, 2001, unless the lease was issued  
23          prior to the establishment of the moratorium and was in  
24          production on January 1, 2001.

1 (f) PAYMENTS TO OCS POLITICAL SUBDIVISIONS.—

2 Thirty-five percent of each OCS Production State's allo-  
3 cable share as determined under subsection (e) shall be  
4 paid directly to the OCS political subdivisions by the Sec-  
5 retary based on the following formula:

6 (1) 25 percent shall be allocated based on the  
7 ratio of such OCS political subdivision's population  
8 to the population of all OCS political subdivisions in  
9 the OCS Production State.

10 (2) 25 percent shall be allocated based on the  
11 ratio of such OCS political subdivision's coastline  
12 miles to the coastline miles of all OCS political sub-  
13 divisions in the OCS Production State. For purposes  
14 of this subsection, those OCS political subdivisions  
15 without coastlines shall be considered to have a  
16 coastline that is the average length of the coastlines  
17 of all political subdivisions in the state.

18 (3) 50 percent shall be allocated based on the  
19 relative distance of such OCS political subdivision  
20 from any leased tract used to calculate that OCS  
21 Production State's allocation using ratios that are  
22 inversely proportional to the distance between the  
23 point in the coastal political subdivision closest to  
24 the geographic center of each leased tract or portion,  
25 as determined by the Secretary. For purposes of the

1 calculations under this subparagraph, a leased tract  
2 or portion of a leased tract shall be excluded if the  
3 leased tract or portion is located in a geographic  
4 area where a moratorium on new leasing was in ef-  
5 fect on January 1, 2001, unless the lease was issued  
6 prior to the establishment of the moratorium and  
7 was in production on January 1, 2001.

8 (g) FAILURE TO HAVE PLAN APPROVED.—Any  
9 amount allocated to an OCS Production State or OCS po-  
10 litical subdivision but not disbursed because of a failure  
11 to have an approved Plan under this section shall be allo-  
12 cated equally by the Secretary among all other OCS Pro-  
13 duction States in a manner consistent with this subsection  
14 except that the Secretary shall hold in escrow such amount  
15 until the final resolution of any appeal regarding the dis-  
16 approval of a plan submitted under this section. The Sec-  
17 retary may waive the provisions of this paragraph and  
18 hold an OCS Production State's allocable share in escrow  
19 if the Secretary determines that such State is making a  
20 good faith effort to develop and submit, or update, a Plan.

21 (h) USE OF AMOUNTS ALLOCATED BY THE SEC-  
22 RETARY.—

23 (1) IN GENERAL.—Amounts allocated by the  
24 Secretary under subsection (d) may be used only in

1       accordance with a plan approved pursuant to sub-  
2       section (c) for—

3               (A) activities to secure critical OCS energy  
4       infrastructure facilities from human or natural  
5       threats; and

6               (B) support of any necessary public service  
7       or transportation activities that are needed to  
8       maintain the safety and operation of critical  
9       OCS energy infrastructure facilities.

10       (2) RESTORATION OF COASTAL WETLAND.—For  
11       the purpose of subparagraph (1)(A), restoration of  
12       any coastal wetland shall be considered to be an ac-  
13       tivity that secures critical OCS energy infrastructure  
14       facilities from a natural threat.

15       (i) FAILURE TO HAVE USE.—Any amount allocated  
16       to an OCS political subdivision but not disbursed because  
17       of a failure to have a qualifying use as described in sub-  
18       section (h) shall be allocated by the Secretary to the OCS  
19       Production State in which the OCS political subdivision  
20       is located except that the Secretary shall hold in escrow  
21       such amount until the final resolution of any appeal re-  
22       garding the use of the funds.

23       (j) COMPLIANCE WITH AUTHORIZED USES.—If the  
24       Secretary determines that any expenditure made by an  
25       OCS Production State or an OCS political subdivision is

1 not consistent with the uses authorized in subsection (h),  
2 the Secretary shall not disburse any further amounts  
3 under this section to that OCS Production State or OCS  
4 political subdivision until the amounts used for the incon-  
5 sistent expenditure have been repaid or obligated for au-  
6 thorized uses.

7 (k) RULEMAKING.—The Secretary may promulgate  
8 such rules and regulations as may be necessary to carry  
9 out the purposes of this section, including rules and regu-  
10 lations setting forth an appropriate process for appeals.

11 (l) AUTHORIZATION OF APPROPRIATIONS.—There  
12 are hereby authorized to be appropriated \$450,000,000  
13 for each of the fiscal years 2003 through 2008 to carry  
14 out the purposes of this section.

Amendment No. 2917

S. 517