

## Calendar No. 259

107TH CONGRESS  
1ST SESSION**S. 1766**

To provide for the energy security of the Nation, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

DECEMBER 5, 2001

Mr. DASCHLE (for himself and Mr. BINGAMAN) introduced the following bill;  
which was read the first time

DECEMBER 6, 2001

Read the second time and placed on the calendar

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**A BILL**

To provide for the energy security of the Nation, and for  
other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

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

6 **SEC. 2. TABLE OF CONTENTS.**

Sec. 1. Short title.

Sec. 2. Table of contents.

DIVISION A—RELIABLE AND DIVERSE POWER GENERATION AND  
TRANSMISSION

TITLE I—REGIONAL COORDINATION

- Sec. 101. Policy on regional coordination.  
Sec. 102. Federal support for regional coordination.

TITLE II—ELECTRICITY

Subtitle A—Amendments to the Federal Power Act

- Sec. 201. Definitions.  
Sec. 202. Electric utility mergers.  
Sec. 203. Market-based rates.  
Sec. 204. Refund effective date.  
Sec. 205. Transmission interconnections.  
Sec. 206. Open access transmission by certain utilities.  
Sec. 207. Electric reliability standards.  
Sec. 208. Market transparency rules.  
Sec. 209. Access to transmission by intermittent generators.  
Sec. 210. Enforcement.

Subtitle B—Amendments to the Public Utility Holding Company Act

- Sec. 221. Short title.  
Sec. 222. Definitions.  
Sec. 223. Repeal of the Public Utility Holding Company Act of 1935.  
Sec. 224. Federal access to books and records.  
Sec. 225. State access to books and records.  
Sec. 226. Exemption authority.  
Sec. 227. Affiliate transactions.  
Sec. 228. Applicability.  
Sec. 229. Effect on other regulations.  
Sec. 230. Enforcement.  
Sec. 231. Savings provisions.  
Sec. 232. Implementation.  
Sec. 233. Transfer of resources.  
Sec. 234. Inter-agency review of competition in the wholesale and retail markets for electric energy.  
Sec. 235. GAO study on implementation.  
Sec. 236. Effective date.  
Sec. 237. Authorization of appropriations.  
Sec. 238. Conforming amendments to the Federal Power Act.

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

- Sec. 241. Real-time pricing standard.  
Sec. 242. Adoption of additional standards.  
Sec. 243. Technical assistance.  
Sec. 244. Cogeneration and small power production purchase and sale requirements.  
Sec. 245. Net metering.

Subtitle D—Consumer Protections

- Sec. 251. Information disclosure.

- Sec. 252. Consumer privacy.
- Sec. 253. Unfair trade practices.
- Sec. 254. Applicable procedures.
- Sec. 255. Federal Trade Commission enforcement.
- Sec. 256. State authority.
- Sec. 257. Application of subtitle.
- Sec. 258. Definitions.

#### Subtitle E—Renewable Energy and Rural Construction Grants

- Sec. 261. Renewable energy production incentive.
- Sec. 262. Assessment of renewable energy resources.
- Sec. 263. Federal purchase requirement.
- Sec. 264. Rural construction grants.
- Sec. 265. Renewable portfolio standard.
- Sec. 266. Renewable energy on Federal land.

### TITLE III—HYDROELECTRIC RELICENSING

- Sec. 301. Alternative conditions.
- Sec. 302. Charges for tribal lands.
- Sec. 303. Disposition of hydroelectric charges.
- Sec. 304. Annual licenses.
- Sec. 305. Enforcement.
- Sec. 306. Establishment of hydroelectric relicensing procedures.
- Sec. 307. Relicensing study.
- Sec. 308. Data collection procedures.

### TITLE IV—INDIAN ENERGY

- Sec. 401. Comprehensive Indian energy program.
- Sec. 402. Office of Indian Energy Policy and Programs.
- Sec. 403. Conforming amendments.
- Sec. 404. Siting energy facilities on tribal lands.
- Sec. 405. Indian Mineral Development Act review.
- Sec. 406. Renewable energy study.
- Sec. 407. Federal Power Marketing Administrations.
- Sec. 408. Feasibility study of combined wind and hydropower demonstration project.

### TITLE V—NUCLEAR POWER

#### SUBTITLE A—PRICE-ANDERSON ACT REAUTHORIZATION

- Sec. 501. Short title.
- Sec. 502. Extension of Department of Energy indemnification authority.
- Sec. 503. Department of Energy liability limit.
- Sec. 504. Incidents outside the United States.
- Sec. 505. Reports.
- Sec. 506. Inflation adjustment.
- Sec. 507. Civil penalties.
- Sec. 508. Effective date.

#### Subtitle B—Miscellaneous Provisions

- Sec. 511. Uranium sales.
- Sec. 512. Reauthorization of thorium reimbursement.
- Sec. 513. Fast Flux Test Facility.

DIVISION B—DOMESTIC OIL AND GAS PRODUCTION AND  
TRANSPORTATION

TITLE VI—OIL AND GAS PRODUCTION

- Sec. 601. Permanent authority to operate the Strategic Petroleum Reserve.
- Sec. 602. Federal onshore leasing programs for oil and gas.
- Sec. 603. Oil and gas lease acreage limitations.
- Sec. 604. Hydraulic fracturing.
- Sec. 605. Orphaned wells on Federal lands.
- Sec. 606. Orphaned and abandoned oil and gas well program.
- Sec. 607. Offshore development.
- Sec. 608. Coalbed methane study.
- Sec. 609. Fiscal policies to maximize recovery of domestic oil and gas resources.
- Sec. 610. Strategic Petroleum Reserve.

TITLE VII—NATURAL GAS PIPELINES

SUBTITLE A—ALASKA NATURAL GAS PIPELINE

- Sec. 701. Short title.
- Sec. 702. Purposes.
- Sec. 703. Issuance of certificate of public convenience and necessity.
- Sec. 704. Environmental reviews.
- Sec. 705. Federal coordinator.
- Sec. 706. Judicial review.
- Sec. 707. Loan guarantee.
- Sec. 708. Definitions.
- Sec. 709. Savings clause.
- Sec. 710. Sense of the Senate.

SUBTITLE B—OPERATING PIPELINES

- Sec. 711. Application of the Historic Preservation Act to operating pipelines.
- Sec. 712. Environmental review and permitting of natural gas pipeline projects.

DIVISION C—DIVERSIFYING ENERGY DEMAND AND IMPROVING  
EFFICIENCY

TITLE VIII—FUELS AND VEHICLES

Subtitle A—Increased Vehicle Fuel Efficiency

- Sec. 801. Increased vehicle fuel efficiency.
- Sec. 802. Fuel economy of the federal fleet of automobiles.
- Sec. 803. Assistance for State programs to retire fuel-inefficient motor vehicles.

Subtitle B—Alternative and Renewable Fuels

- Sec. 811. Increased use of alternative fuels by federal fleets.
- Sec. 812. Exception to HOV passenger requirements for alternative fuel vehicles.
- Sec. 813. Data collection.
- Sec. 814. Green school bus pilot program.
- Sec. 815. Fuel cell bus development and demonstration program.
- Sec. 816. Authorization of appropriations.
- Sec. 817. Biodiesel fuel use credits.
- Sec. 818. Renewable content of motor vehicle fuel.

Sec. 819. Neighborhood electric vehicles.

#### Subtitle C—Federal Reformulated Fuels

- Sec. 821. Short title.
- Sec. 822. Leaking underground storage tanks.
- Sec. 823. Authority for water quality protection from fuels.
- Sec. 824. Waiver of oxygen content requirement for reformulated gasoline.
- Sec. 825. Public health and environmental impacts of fuels and fuel additives.
- Sec. 826. Analyses of motor vehicle fuel changes.
- Sec. 827. Additional opt-in areas under reformulated gasoline program.
- Sec. 828. MBTE merchant producer conversion assistance.

### TITLE IX—ENERGY EFFICIENCY AND ASSISTANCE TO LOW INCOME CONSUMERS

#### SUBTITLE A—LOW INCOME ASSISTANCE AND STATE ENERGY PROGRAMS

- Sec. 901. Increased funding for LIHEAP, weatherization assistance, and State energy grants.
- Sec. 902. State energy programs.
- Sec. 903. Energy efficient schools.
- Sec. 904. Low income community energy efficiency pilot program.

#### SUBTITLE B—FEDERAL ENERGY EFFICIENCY

- Sec. 911. Energy management requirements.
- Sec. 912. Energy use measurement and accountability.
- Sec. 913. Federal building performance standards.
- Sec. 914. Procurement of energy efficient products.
- Sec. 915. Cost savings from replacement facilities.
- Sec. 916. Repeal of energy savings performance contract sunset.
- Sec. 917. Energy savings performance contract definitions.
- Sec. 918. Review of energy savings performance contract program.
- Sec. 919. Federal Energy Bank.
- Sec. 920. Energy and water saving measures in Congressional buildings.

#### Subtitle C—Industrial Efficiency and Consumer Products

- Sec. 921. Voluntary commitments to reduce industrial energy intensity.
- Sec. 922. Authority to set standards for commercial products.
- Sec. 923. Additional definitions.
- Sec. 924. Additional test procedures.
- Sec. 925. Energy labeling.
- Sec. 926. Energy Star Program.
- Sec. 927. Energy conservation standards for central air conditioners and heat pumps.
- Sec. 928. Energy conservation standards for additional consumer and commercial products.
- Sec. 929. Consumer education on energy efficiency benefits of air conditioning, heating, and ventilation maintenance.

#### Subtitle D—Housing Efficiency

- Sec. 931. Capacity building for energy efficient, affordable housing.
- Sec. 932. Increase of CDBG public services cap for energy conservation and efficiency activities.
- Sec. 933. FHA mortgage insurance incentives for energy efficient housing.

- Sec. 934. Public housing capital fund.  
 Sec. 935. Grants for energy-conserving improvements for assisted housing.  
 Sec. 936. North American Development Bank.

DIVISION D—INTEGRATION OF ENERGY POLICY AND CLIMATE  
 CHANGE POLICY

TITLE X—CLIMATE CHANGE POLICY FORMULATION

Subtitle A—Global Warming

- Sec. 1001. Sense of Congress on global warming.

Subtitle B—Climate Change Strategy

- Sec. 1011. Short title.  
 Sec. 1012. Findings.  
 Sec. 1013. Purpose.  
 Sec. 1014. Definitions.  
 Sec. 1015. United States Climate Change Response Strategy.  
 Sec. 1016. National Office of Climate Change Response of the Executive Office of the President.  
 Sec. 1017. Technology innovation program implemented through the Office of Climate Change Technology of the Department of Energy.  
 Sec. 1018. Additional offices and activities.  
 Sec. 1019. United States Climate Change Response Strategy Review Board.  
 Sec. 1020. Authorization of appropriations.

SUBTITLE C—SCIENCE AND TECHNOLOGY POLICY

- Sec. 1031. Global climate change in the Office of Science and Technology Policy.  
 Sec. 1032. Establishment of Associate Director for Global Climate Change.

SUBTITLE D—MISCELLANEOUS PROVISIONS

- Sec. 1041. Additional information for regulatory review.  
 Sec. 1042. Greenhouse gas emissions from federal facilities.

TITLE XI—GREENHOUSE GAS DATABASE

- Sec. 1101. Definitions.  
 Sec. 1102. National Greenhouse Gas Emissions Database.  
 Sec. 1103. Interagency Task Force on Greenhouse Gas Database.  
 Sec. 1104. Measurement and verification.

DIVISION E—ENHANCING RESEARCH, DEVELOPMENT, AND  
 TRAINING

TITLE XII—ENERGY RESEARCH AND DEVELOPMENT PROGRAMS

- Sec. 1201. Short title.  
 Sec. 1202. Findings.  
 Sec. 1203. Definitions.  
 Sec. 1204. Construction with other laws.

Subtitle A—Energy Efficiency

- Sec. 1211. Enhanced energy efficiency research and development.

- Sec. 1212. Energy efficiency science initiative.
- Sec. 1213. Next generation lighting initiative.
- Sec. 1214. Railroad efficiency.

#### Subtitle B—Renewable Energy

- Sec. 1221. Enhanced renewable energy research and development.
- Sec. 1222. Bioenergy programs.
- Sec. 1223. Hydrogen research and development.

#### Subtitle C—Fossil Energy

- Sec. 1231. Enhanced fossil energy research and development.
- Sec. 1232. Power plant improvement initiative.
- Sec. 1233. Research and development for advanced safe and efficient coal mining technologies.
- Sec. 1234. Ultra-deepwater and unconventional resource exploration and production technologies.
- Sec. 1235. Research and development for new natural gas transportation technologies.
- Sec. 1236. Authorization of appropriations for Office of Arctic Energy.

#### SUBTITLE D—NUCLEAR ENERGY

- Sec. 1241. Enhanced nuclear energy research and development.
- Sec. 1242. University nuclear science and engineering support.
- Sec. 1243. Nuclear energy research initiative.
- Sec. 1244. Nuclear energy plant optimization program.
- Sec. 1245. Nuclear energy technology development program.

#### SUBTITLE E—FUNDAMENTAL ENERGY SCIENCE

- Sec. 1251. Enhanced programs in fundamental energy science.
- Sec. 1252. Nanoscale science and engineering research.
- Sec. 1253. Advanced scientific computing for energy missions.
- Sec. 1254. Fusion energy sciences program and planning.

#### Subtitle F—Energy, Safety, and Environmental Protection

- Sec. 1261. Critical energy infrastructure protection research and development.
- Sec. 1262. Pipeline integrity, safety, and reliability research and development.
- Sec. 1263. Research and demonstration for remediation of groundwater from energy activities.

### TITLE XIII—CLIMATE CHANGE RESEARCH AND DEVELOPMENT

#### Subtitle A—Department of Energy Programs

- Sec. 1301. Program goals.
- Sec. 1302. Department of Energy global change science research.
- Sec. 1303. Amendments to the Federal Nonnuclear Research and Development Act of 1974.

#### Subtitle B—Department of Agriculture Programs

- Sec. 1311. Carbon sequestration basic and applied research.
- Sec. 1312. Carbon sequestration demonstration projects and outreach.

#### Subtitle C—Clean Energy Technology Exports Program

- Sec. 1321. Clean energy technology exports program.
- Sec. 1322. International energy technology deployment program.

Subtitle D—Climate Change Science and Information

PART I—AMENDMENTS TO THE GLOBAL CHANGE RESEARCH ACT OF 1990

- Sec. 1331. Amendment of Global Change Research Act of 1990.
- Sec. 1332. Changes in definitions.
- Sec. 1333. Change in committee name.
- Sec. 1334. Change in national global change research plan.
- Sec. 1335. Integrated Program Office.

PART II—NATIONAL CLIMATE SERVICES MONITORING

- Sec. 1341. Amendment of National Climate Program Act.
- Sec. 1342. Changes in findings.
- Sec. 1343. Tools for regional planning.
- Sec. 1344. Authorization of appropriations.
- Sec. 1345. National Climate Service Plan.
- Sec. 1346. Reporting on trends.

PART III—OCEAN AND COASTAL OBSERVING SYSTEM

- Sec. 1351. Ocean and coastal observing system.
- Sec. 1352. Authorization of appropriations.

SUBTITLE E—CLIMATE CHANGE TECHNOLOGY

- Sec. 1361. NIST greenhouse gas functions.
- Sec. 1362. Development of new measurement technologies.
- Sec. 1363. Enhanced environmental measurements and standards.
- Sec. 1364. Technology development and diffusion.

Subtitle F—Climate Adaptation and Hazards Prevention

PART I—ASSESSMENT AND ADAPTATION

- Sec. 1371. Regional climate assessment and adaptation program.
- Sec. 1372. Coastal vulnerability and adaptation.

PART II—FORECASTING AND PLANNING PILOT PROGRAMS

- Sec. 1381. Remote sensing pilot projects.
- Sec. 1382. Database establishment.
- Sec. 1383. Definitions.
- Sec. 1384. Authorization of appropriations.

TITLE XIV—MANAGEMENT OF DOE SCIENCE AND TECHNOLOGY PROGRAMS

- Sec. 1401. Definitions.
- Sec. 1402. Availability of funds.
- Sec. 1403. Cost sharing.
- Sec. 1404. Merit review of proposals.
- Sec. 1405. External technical review of departmental programs.
- Sec. 1406. Improved coordination and management of civilian science and technology programs.
- Sec. 1407. Improved coordination of technology transfer activities.

- Sec. 1408. Technology infrastructure program.
- Sec. 1409. Small business advocacy and assistance.
- Sec. 1410. Other transactions.
- Sec. 1411. Mobility of scientific and technical personnel.
- Sec. 1412. National Academy of Sciences report.
- Sec. 1413. Report on technology readiness and barriers to technology transfer.

#### TITLE XV—PERSONNEL AND TRAINING

- Sec. 1501. Workforce trends and traineeship grants.
- Sec. 1502. Postdoctoral and senior research fellowships in energy research.
- Sec. 1503. Training guidelines for electric energy industry personnel.
- Sec. 1504. National Center on Energy Management and Building Technologies.
- Sec. 1505. Improved access to energy-related scientific and technical careers.

#### DIVISION F—TECHNOLOGY ASSESSMENT AND STUDIES

##### TITLE XVI—TECHNOLOGY ASSESSMENT

- Sec. 1601. National Science and Technology Assessment Service.

##### TITLE XVII—STUDIES

- Sec. 1701. Regulatory reviews.
- Sec. 1702. Assessment of dependence of Hawaii on oil.
- Sec. 1703. Study of siting an electric transmission system on Amtrak right-of-way.

#### DIVISION G—ENERGY INFRASTRUCTURE SECURITY

##### TITLE XIII—CRITICAL ENERGY INFRASTRUCTURE

###### SUBTITLE A—DEPARTMENT OF ENERGY PROGRAMS

- Sec. 1801. Definitions.
- Sec. 1802. Role of the Department of Energy.
- Sec. 1803. Critical energy infrastructure programs.
- Sec. 1804. Advisory Committee on Energy Infrastructure Security.
- Sec. 1805. Best practices and standards for energy infrastructure security.

###### SUBTITLE B—DEPARTMENT OF THE INTERIOR PROGRAMS

- Sec. 1811. Outer Continental Shelf energy infrastructure security.

###### SUBTITLE C—COMMERCIAL NUCLEAR FACILITY SECURITY

- Sec. 1821. Reserved

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.

22 **SEC. 102. FEDERAL SUPPORT FOR REGIONAL COORDINA-**  
23 **TION.**

24 (a) TECHNICAL ASSISTANCE.—The Secretary of En-  
25 ergy shall provide technical assistance to States and re-

1 gional organizations formed by two or more States to as-  
2 sist them in coordinating their energy policies on a re-  
3 gional basis. Such technical assistance may include assist-  
4 ance in—

5 (1) assessing future supply availability and de-  
6 mand requirements,

7 (2) planning and siting additional energy infra-  
8 structure, including generating facilities, electric  
9 transmission facilities, pipelines, refineries, and dis-  
10 tributed generation facilities to meet regional needs,

11 (3) identifying and resolving problems in dis-  
12 tribution networks,

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

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

17 (b) ANNUAL CONFERENCE ON REGIONAL ENERGY  
18 COORDINATION.—

19 (1) ANNUAL CONFERENCE.—The Secretary of  
20 Energy shall convene an annual conference to pro-  
21 mote regional coordination on energy policy and in-  
22 frastructure issues.

23 (2) PARTICIPATION.—The Secretary of Energy  
24 shall invite appropriate representatives of federal,

1 state, and regional energy organizations, and other  
2 interested parties.

3 (3) FEDERAL AGENCY COOPERATION.—The  
4 Secretary of Energy shall consult and cooperate with  
5 the Secretary of the Interior, the Secretary of Agri-  
6 culture, the Secretary of Commerce, the Secretary of  
7 the Treasury, the Chairman of the Federal Energy  
8 Regulatory Commission, the Administrator of the  
9 Environmental Protection Agency, and the Chair-  
10 man of the Council on Environmental Quality in the  
11 planning and conduct of the conference.

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

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

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

1 (B) federal support for regional coordina-  
2 tion.

3 **TITLE II—ELECTRICITY**  
4 **Subtitle A—Amendments to the**  
5 **Federal Power Act**

6 **SEC. 201. DEFINITIONS.**

7 (a) DEFINITION OF ELECTRIC UTILITY.—Section  
8 3(22) of the Federal Power Act (16 U.S.C. 796(22)) is  
9 amended to read as follows:

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

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

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

23 “(A) interstate commerce; or

24 “(B) for the sale of electric energy at whole-  
25 sale.”.

1 **SEC. 202. ELECTRIC UTILITY MERGERS.**

2 Section 203(a) of the Federal Power Act (16 U.S.C.  
3 824b) is amended to read as follows:

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

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

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

15 “(C) purchase, acquire, or take any security of  
16 any other public utility, or

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

20 “(2) No holding company in a holding company sys-  
21 tem that includes a transmitting utility or an electric util-  
22 ity company shall purchase, acquire, or take any security  
23 of, or, by any means whatsoever, directly or indirectly,  
24 merge or consolidate with a transmitting utility, an elec-  
25 tric utility company, a gas utility company, or a holding  
26 company in a holding company system that includes a

1 transmitting utility, an electric utility company, or a gas  
2 utility company, without first having secured an order of  
3 the Commission authorizing it to do so.

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

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

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

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

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

23 (a) APPROVAL OF MARKET-BASED RATES.—Section  
24 205 of the Federal Power Act (16 U.S.C. 824d) is amend-  
25 ed by adding at the end the following:

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

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

9           “(2) whether the sale is made in a competitive mar-  
10 ket;

11          “(3) whether market mechanisms, such as power ex-  
12 changes and bid auctions, function adequately;

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

14          “(5) the effect of mechanisms or requirements in-  
15 tended to ensure adequate reserve margins; and

16          “(6) other such considerations as the Commission  
17 may deem to be appropriate and in the public inter-  
18 est.”.

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

22          “(f) Whenever the Commission, after a hearing had  
23 upon its own motion or upon complaint, finds that a rate  
24 charged by a public utility authorized to charge a market-  
25 based rate under section 205 is unjust, unreasonable, un-

1 duly discriminatory or preferential, the Commission shall  
 2 determine the just and reasonable rate and fix the same  
 3 by order in accordance with this section, or order such  
 4 other action as will, in the judgment of the Commission,  
 5 adequately ensure a just and reasonable market-based  
 6 rate.”.

7 **SEC. 204. REFUND EFFECTIVE DATE.**

8 Section 206(b) of the Federal Power Act (16 U.S.C.  
 9 824e(b)) is amended by—

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

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

21 **SEC. 205. TRANSMISSION INTERCONNECTIONS.**

22 Section 210 of the Federal Power Act (16 U.S.C.  
 23 824i) is amended to read as follows:

24 “TRANSMISSION INTERCONNECTION AUTHORITY

25 “SEC. 210. (a)(1) The Commission shall, by rule, es-  
 26 tablish technical standards and procedures for the inter-

1 connection of facilities used for the generation of electric  
2 energy with facilities used for the transmission of electric  
3 energy in interstate commerce. The rule shall provide—

4           “(A) criteria to ensure that an interconnection  
5 will not unreasonably impair the reliability of the  
6 transmission system; and

7           “(B) criteria for the apportionment or reim-  
8 bursement of the costs of making the interconnec-  
9 tion.

10          “(2) Notwithstanding section 201(f), a transmitting  
11 utility shall interconnect its transmission facilities with the  
12 generation facilities of a power producer upon the applica-  
13 tion of the power producer if the power producer complies  
14 with the requirements of the rule.

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

19           “(1) the physical connection of facilities used  
20 for the generation of electric energy with facilities  
21 used for the transmission of electric energy in inter-  
22 state commerce;

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



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

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

6           “(B) does not own or operate any transmission  
7 facilities that are necessary for operating an inter-  
8 connected transmission system (or any portion  
9 thereof), or

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

12       “(3) The rate changing procedures applicable to pub-  
13 lic utilities under subsections (c) and (d) of section 205  
14 are applicable to unregulated transmitting utilities for  
15 purposes of this section.

16       “(4) In exercising its authority under paragraph (1),  
17 the Commission may remand transmission rates to an un-  
18 regulated transmitting utility for review and revision  
19 where necessary to meet the requirements of paragraph  
20 (1).

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

24       “(6) The Commission may not require a State or mu-  
25 nicipality to take action under this section that constitutes

1 a private business use for purposes of section 141 of the  
2 Internal Revenue Code of 1986 (26 U.S.C. 141).

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

5 “(A) owns or operates facilities used for the  
6 transmission of electric energy in interstate com-  
7 merce or for the sale of electric energy at wholesale,  
8 and

9 “(B) is either an entity described in section  
10 201(f) or a rural electric cooperative.”.

11 **SEC. 207. ELECTRIC RELIABILITY STANDARDS.**

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

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

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

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

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

1           “(b) STANDARDS.—In carrying out its responsibility  
2 under subsection (a), the Commission may adopt and en-  
3 force, in whole or in part, a reliability standard proposed  
4 or adopted by the North American Electric Reliability  
5 Council, a regional reliability council, a similar organiza-  
6 tion, or a State regulatory authority.

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

17           “(d) COOPERATION WITH CANADA AND MEXICO.—  
18 The Commission shall ensure that any self-regulating reli-  
19 ability organization certified under this section, one or  
20 more of whose members are interconnected with transmit-  
21 ting utilities in Canada or the Republic of Mexico, provide  
22 for the participation of such utilities in the governance of  
23 the organization and the adoption of reliability standards.  
24 Nothing in this section shall be construed to extend the

1 jurisdiction of the Commission outside of the United  
2 States.

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

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

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

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

20 **SEC. 208. MARKET TRANSPARENCY RULES.**

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

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

24 “(a) COMMISSION RULES.—Not later than 180 days  
25 after the date of enactment of this section, the Commis-

1 sion shall issue rules establishing an electronic information  
2 system to provide information about the availability and  
3 price of wholesale electric energy and transmission services  
4 to the Commission, state commissions, buyers and sellers  
5 of wholesale electric energy, users of transmission services,  
6 and the public on a timely basis.

7 “(b) INFORMATION REQUIRED.—The Commission  
8 shall require—

9 “(1) each regional transmission organization to  
10 provide statistical information about the available  
11 capacity and capacity constraints of transmission fa-  
12 cilities operated by the organization; and

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

19 “(c) TIMELY BASIS.—The Commission shall require  
20 the information required under subsection (b) to be posted  
21 on the Internet as soon as practicable and updated as fre-  
22 quently as practicable.

23 “(d) PROTECTION OF SENSITIVE INFORMATION.—  
24 The Commission shall exempt from disclosure commercial  
25 or financial information that the Commission, by rule or

1 order, determines to be privileged, confidential, or other-  
2 wise sensitive.”.

3 **SEC. 209. ACCESS TO TRANSMISSION BY INTERMITTENT**  
4 **GENERATORS.**

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

7 **“SEC. 217. ACCESS TO TRANSMISSION BY INTERMITTENT**  
8 **GENERATORS.**

9 “(a) FAIR TREATMENT OF INTERMITTENT GENERA-  
10 TORS.—The Commission shall ensure that all transmitting  
11 utilities provide transmission service to intermittent gen-  
12 erators in a manner that does not penalize such genera-  
13 tors, directly or indirectly, for characteristics that are—

14 “(1) inherent to intermittent energy resources;  
15 and

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

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

21 “(1) Subject to the sole exception set forth in  
22 paragraph (2), the Commission shall ensure that the  
23 rates transmitting utilities charge intermittent gen-  
24 erator customers for transmission services do not di-

1 rectly or indirectly penalize intermittent generator  
2 customers for scheduling deviations.

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

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

22 “(4) The Commission shall require transmitting  
23 utilities to offer to intermittent generators, and may  
24 require transmitting utilities to offer to all trans-  
25 mission customers, access to nonfirm transmission

1 service pursuant to long-term contracts of up to ten  
2 years duration under reasonable terms and condi-  
3 tions.

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

5 “(1) The term ‘intermittent generator’ means a  
6 person that generates electricity using wind or solar  
7 energy.

8 “(2) The term ‘nonfirm transmission service’  
9 means transmission service provided on an ‘as avail-  
10 able’ basis.

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

16 **SEC. 210. ENFORCEMENT.**

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

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

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

23 (b) INVESTIGATIONS.—Section 307(a) of the Federal  
24 Power Act (16 U.S.C. 825f(a)) is amended by inserting

1 “or transmitting utility” after “any person” in the first  
2 sentence.

3 (c) REVIEW OF COMMISSION ORDERS.—Section  
4 313(a) of the Federal Power Act (16 U.S.C. 8251) is  
5 amended by inserting “electric utility,” after “Any per-  
6 son,” in the first sentence.

7 (d) CRIMINAL PENALTIES.—Section 316(c) of the  
8 Federal Power Act (16 U.S.C. 8250(c)) is repealed.

9 (e) CIVIL PENALTIES.—Section 316A of the Federal  
10 Power Act (16 U.S.C. 8250–1) is amended by striking  
11 “section 211, 212, 213, or 214” each place it appears and  
12 inserting “Part II”.

13 **Subtitle B—Amendments to the**  
14 **Public Utility**  
15 **Holding Company Act**

16 **SEC. 221. SHORT TITLE.**

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

19 **SEC. 222. DEFINITIONS.**

20 For purposes of this subtitle:

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

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

4           (3) The term “Commission” means the Federal  
5           Energy Regulatory Commission.

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

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

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

21          (7) The term “gas utility company” means any  
22          company that owns or operates facilities used for  
23          distribution at retail (other than the distribution  
24          only in enclosed portable containers or distribution  
25          to tenants or employees of the company operating

1 such facilities for their own use and not for resale)  
2 of natural or manufactured gas for heat, light, or  
3 power.

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

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

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

22 (9) The term “holding company system” means  
23 a holding company, together with its subsidiary com-  
24 panies.

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

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

14           (12) The term “person” means an individual or  
15 company.

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

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

23           (15) The term “State commission” means any  
24 commission, board, agency, or officer, by whatever  
25 name designated, of a State, municipality, or other

1 political subdivision of a State that, under the laws  
2 of such State, has jurisdiction to regulate public util-  
3 ity companies.

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

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

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

23 (17) The term “voting security” means any se-  
24 curity presently entitling the owner or holder thereof

1 to vote in the direction or management of the affairs  
2 of a company.

3 **SEC. 223. REPEAL OF THE PUBLIC UTILITY HOLDING COM-**  
4 **PANY ACT OF 1935.**

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

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

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

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

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

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

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

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

24                   (1) have been identified in reasonable detail in  
25           a proceeding before the State commission;

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

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

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

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

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

23          (e) COURT JURISDICTION.—Any United States dis-  
24          trict court located in the State in which the State commis-

1 sion referred to in subsection (a) is located shall have ju-  
2 risdiction to enforce compliance with this section.

3 **SEC. 226. EXEMPTION AUTHORITY.**

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

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

12 (2) exempt wholesale generators; or

13 (3) foreign utility companies.

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

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

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

1 **SEC. 227. AFFILIATE TRANSACTIONS.**

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

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

18 **SEC. 228. APPLICABILITY.**

19 Except as otherwise specifically provided in this sub-  
20 title, no provision of this subtitle shall apply to, or be  
21 deemed to include—

22 (1) the United States;

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

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

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

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

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

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

11   **SEC. 230. ENFORCEMENT.**

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

16   **SEC. 231. SAVINGS PROVISIONS.**

17          (a) **IN GENERAL.**—Nothing in this subtitle prohibits  
18          a person from engaging in or continuing to engage in ac-  
19          tivities or transactions in which it is legally engaged or  
20          authorized to engage on the effective date of this subtitle.

21          (b) **EFFECT ON OTHER COMMISSION AUTHORITY.**—  
22          Nothing in this subtitle limits the authority of the Com-  
23          mission under the Federal Power Act (16 U.S.C. 791a et  
24          seq.) (including section 301 of that Act) or the Natural

1 Gas Act (15 U.S.C. 717 et seq.) (including section 8 of  
2 that Act).

3 **SEC. 232. IMPLEMENTATION.**

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

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

9 (2) submit to the Congress detailed rec-  
10 ommendations on technical and conforming amend-  
11 ments to Federal law necessary to carry out this  
12 subtitle and the amendments made by this subtitle.

13 **SEC. 233. TRANSFER OF RESOURCES.**

14 All books and records that relate primarily to the  
15 functions transferred to the Commission under this sub-  
16 title shall be transferred from the Securities and Exchange  
17 Commission to the Commission.

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

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

25 (1) 1 member each from—

1 (A) the Department of Justice, to be ap-  
2 pointed by the Attorney General of the United  
3 States;

4 (B) the Federal Energy Regulatory Com-  
5 mission, to be appointed by the chairman of  
6 that Commission; and

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

10 (2) 2 advisory members (who shall not vote), of  
11 whom—

12 (A) 1 shall be appointed by the Secretary  
13 of Agriculture to represent the Rural Utility  
14 Service; and

15 (B) 1 shall be appointed by the Chairman  
16 of the Securities and Exchange Commission to  
17 represent that Commission.

18 (b) STUDY AND REPORT.—

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

23 (2) REPORT.—

24 (A) FINAL REPORT.—Not later than 1  
25 year after the effective date of this subtitle, the

1 task force shall submit a final report of its find-  
2 ings under paragraph (1) to the Congress.

3 (B) PUBLIC COMMENT.—At least 60 days  
4 before submission of a final report to the Con-  
5 gress under subparagraph (A), the task force  
6 shall publish a draft report in the Federal Reg-  
7 ister to provide for public comment.

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

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

12 (2) activities within the wholesale and retail  
13 electric market that may allow unfair and unjusti-  
14 fied discriminatory and deceptive practices;

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

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

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

23 (d) CONSULTATION.—In performing the study re-  
24 quired by this section, the task force shall consult with  
25 and solicit comments from its advisory members, the

1 States, representatives of the electric power industry, and  
2 the public.

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

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

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

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

14 (b) REPORT TO CONGRESS.—Not earlier than 18  
15 months after the effective date of this subtitle or later  
16 than 24 months after that effective date, the Comptroller  
17 General shall submit a report to the Congress on the re-  
18 sults of the study conducted under subsection (a), includ-  
19 ing probable causes of its findings and recommendations  
20 to the Congress and the States for any necessary legisla-  
21 tive changes.

22 **SEC. 236. EFFECTIVE DATE.**

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

1 **SEC. 237. AUTHORIZATION OF APPROPRIATIONS.**

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

4 **SEC. 238. CONFORMING AMENDMENTS TO THE FEDERAL**  
5 **POWER ACT.**

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

8       (b) DEFINITIONS.—

9           (1) Section 201(g) of the Federal Power Act  
10 (16 U.S.C. 824(g)) is amended by striking “1935”  
11 and inserting “2002”.

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

15 **Subtitle C—Amendments to the**  
16 **Public Utility Regulatory Poli-**  
17 **cies Act of 1978**

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

19       (a) ADOPTION OF STANDARD.—Section 111(d) of the  
20 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
21 2621(d)) is amended by adding at the end the following:

22           “(11) REAL-TIME PRICING.—(A) Each electric  
23 utility shall, at the request of an electric consumer,  
24 provide electric service under a real-time rate sched-  
25 ule, under which the rate charged by the electric  
26 utility varies by the hour (or smaller time interval)

1 according to changes in the electric utility’s whole-  
2 sale power cost. The real-time pricing service shall  
3 enable the electric consumer to manage energy use  
4 and cost through real-time metering and commu-  
5 nications technology.

6 “(B) For purposes of implementing this para-  
7 graph, any reference contained in this section to the  
8 date of enactment of the Public Utility Regulatory  
9 Policies Act of 1978 shall be deemed to be a ref-  
10 erence to the date of enactment of this paragraph.

11 “(C) Notwithstanding subsections (b) and (c) of  
12 section 112, each State regulatory authority shall  
13 consider and make a determination concerning  
14 whether it is appropriate to implement the standard  
15 set out in subparagraph (A) not later than one year  
16 after the date of enactment of this paragraph.”.

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

21 “(i) REAL-TIME PRICING.—In a state that permits  
22 third-party marketers to sell electric energy to retail elec-  
23 tric consumers, the electric consumer shall be entitled to  
24 receive the same real-time metering and communication

1 service as a direct retail electric consumer of the electric  
2 utility.”.

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

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

8 “(6) DISTRIBUTED GENERATION.—Each elec-  
9 tric utility shall provide distributed generation, com-  
10 bined heat and power, and district heating and cool-  
11 ing systems competitive access to the local distribu-  
12 tion grid and competitive pricing of service, and  
13 shall use simplified standard contracts for the inter-  
14 connection of generating facilities that have a power  
15 production capacity of 250 kilowatts or less.

16 “(7) DISTRIBUTION INTERCONNECTIONS.—No  
17 electric utility may refuse to interconnect a gener-  
18 ating facility with the distribution facilities of the  
19 electric utility if the owner or operator of the gener-  
20 ating facility complies with technical standards  
21 adopted by the State regulatory authority and  
22 agrees to pay the costs established by such State  
23 regulatory authority.

24 “(8) MINIMUM FUEL AND TECHNOLOGY DIVER-  
25 SITY STANDARD.—Each electric utility shall develop

1 a plan to minimize dependence on one fuel source  
2 and to ensure that the electric energy it sells to con-  
3 sumers is generated using a diverse range of fuels  
4 and technologies, including renewable technologies.

5 “(9) FOSSIL FUEL EFFICIENCY.—Each electric  
6 utility shall develop and implement a ten-year plan  
7 to increase the efficiency of its fossil fuel generation  
8 and shall monitor and report to its State regulatory  
9 authority excessive greenhouse gas emissions result-  
10 ing from the inefficient operation of its fossil fuel  
11 generating plants.”.

12 (c) TIME FOR ADOPTING STANDARD.—Section 113  
13 of the Public Utility Regulatory Policies Act of 1978 (16  
14 U.S.C. 2623) is further amended by adding at the end  
15 the following:

16 “(d) SPECIAL RULE.—For purposes of implementing  
17 paragraphs (6), (7), (8), and (9) of subsection (b), any  
18 reference contained in this section to the date of enact-  
19 ment of the Public Utility Regulatory Policies Act of 1978  
20 shall be deemed to be a reference to the date of enactment  
21 of this subsection.”.

22 **SEC. 243. TECHNICAL ASSISTANCE.**

23 Section 132(c) of the Public Utility Regulatory Poli-  
24 cies Act of 1978 (16 U.S.C. 2642(c)) is amended to read  
25 as follows:

1       “(c) TECHNICAL ASSISTANCE FOR CERTAIN RESPON-  
 2 SIBILITIES.—The Secretary may provide such technical  
 3 assistance as he determines appropriate to assist State  
 4 regulatory authorities and electric utilities in carrying out  
 5 their responsibilities under section 111(d)(11) and para-  
 6 graphs (6), (7), (8), and (9) of section 113(b).”.

7 **SEC. 244. COGENERATION AND SMALL POWER PRODUC-**  
 8 **TION PURCHASE AND SALE REQUIREMENTS.**

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

13       “(m) TERMINATION OF MANDATORY PURCHASE AND  
 14 SALE REQUIREMENTS.—

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

19           “(2) NO EFFECT ON EXISTING RIGHTS AND  
 20 REMEDIES.—Nothing in this subsection affects the  
 21 rights or remedies of any party with respect to the  
 22 purchase or sale of electric energy or capacity from  
 23 or to a facility under this section under any contract  
 24 or obligation to purchase or to sell electric energy or

1 capacity on the date of enactment of this subsection,  
2 including—

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

5 “(B) in States without competition for re-  
6 tail electric supply, the obligation of a utility to  
7 provide, at just and reasonable rates for con-  
8 sumption by a qualifying small power produc-  
9 tion facility or a qualifying cogeneration facility,  
10 backup, standby, and maintenance power.

11 “(3) RECOVERY OF COSTS.—

12 “(A) REGULATION.—To ensure recovery  
13 by an electric utility that purchases electric en-  
14 ergy or capacity from a qualifying facility pur-  
15 suant to any legally enforceable obligation en-  
16 tered into or imposed under this section before  
17 the date of enactment of this subsection, of all  
18 prudently incurred costs associated with the  
19 purchases, the Commission shall issue and en-  
20 force such regulations as may be required to en-  
21 sure that the electric utility shall collect the  
22 prudently incurred costs associated with such  
23 purchases.

24 “(B) ENFORCEMENT.—A regulation under  
25 subparagraph (A) shall be enforceable in ac-

1 cordance with the provisions of law applicable  
2 to enforcement of regulations under the Federal  
3 Power Act (16 U.S.C. 791a et seq.).”.

4 (b) ELIMINATION OF OWNERSHIP LIMITATIONS.—

5 (1) Section 3(17)(C) of the Federal Power Act  
6 (16 U.S.C. 796(17)(C)) is amended to read as fol-  
7 lows:

8 “(C) ‘qualifying small power production fa-  
9 cility’ means a small power production facility  
10 that the Commission determines, by rule, meets  
11 such requirements (including requirements re-  
12 specting minimum size, fuel use, and fuel effi-  
13 ciency) as the Commission may, by rule, pre-  
14 scribe.”.

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

18 “(B) ‘qualifying cogeneration facility’  
19 means a cogeneration facility that the Commis-  
20 sion determines, by rule, meets such require-  
21 ments (including requirements respecting min-  
22 imum size, fuel use, and fuel efficiency) as the  
23 Commission may, by rule, prescribe.”.

1 **SEC. 245. NET METERING.**

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

4 **“SEC. 605. NET METERING FOR RENEWABLE ENERGY AND**  
5 **FUEL CELLS.**

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

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

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

13 “(B) a facility on the site of a commercial  
14 electric consumer with a maximum generating  
15 capacity of 500 kilowatts or less that is fueled  
16 solely by a renewable energy resource, landfill  
17 gas, or a high efficiency system.

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

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

22 “(4) The term ‘net metering service’ means  
23 service to an electric consumer under which electric  
24 energy generated by that electric consumer from an  
25 eligible on-site generating facility and delivered to  
26 the local distribution facilities may be used to offset

1 electric energy provided by the electric utility to the  
2 electric consumer during the applicable billing pe-  
3 riod.

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

8 “(c) RATES AND CHARGES.—

9 “(1) IDENTICAL CHARGES.—An electric  
10 utility—

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

16 “(B) shall not charge the owner or oper-  
17 ator of an on-site generating facility any addi-  
18 tional standby, capacity, interconnection, or  
19 other rate or charge.

20 “(2) MEASUREMENT.—An electric utility that  
21 sells electric energy to the owner or operator of an  
22 on-site generating facility shall measure the quantity  
23 of electric energy produced by the on-site facility  
24 and the quantity of electric energy consumed by the  
25 owner or operator of an on-site generating facility

1 during a billing period in accordance with normal  
2 metering practices.

3 “(3) ELECTRIC ENERGY SUPPLIED EXCEEDING  
4 ELECTRIC ENERGY GENERATED.—If the quantity of  
5 electric energy sold by the electric utility to an on-  
6 site generating facility exceeds the quantity of elec-  
7 tric energy supplied by the on-site generating facility  
8 to the electric utility during the billing period, the  
9 electric utility may bill the owner or operator for the  
10 net quantity of electric energy sold, in accordance  
11 with normal metering practices.

12 “(4) ELECTRIC ENERGY GENERATED EXCEED-  
13 ING ELECTRIC ENERGY SUPPLIED.—If the quantity  
14 of electric energy supplied by the on-site generating  
15 facility to the electric utility exceeds the quantity of  
16 electric energy sold by the electric utility to the on-  
17 site generating facility during the billing period—

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

22 “(B) the owner or operator of the on-site  
23 generating facility shall be credited for the ex-  
24 cess kilowatt-hours generated during the billing

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

3           “(d) SAFETY AND PERFORMANCE STANDARDS.—

4           “(1) An eligible on-site generating facility and  
5           net metering system used by an electric consumer  
6           shall meet all applicable safety, performance, reli-  
7           ability, and interconnection standards established by  
8           the National Electrical Code, the Institute of Elec-  
9           trical and Electronics Engineers, and Underwriters  
10          Laboratories.

11          “(2) The Commission, after consultation with  
12          State regulatory authorities and nonregulated elec-  
13          tric utilities and after notice and opportunity for  
14          comment, may adopt, by rule, additional control and  
15          testing requirements for on-site generating facilities  
16          and net metering systems that the Commission de-  
17          termines are necessary to protect public safety and  
18          system reliability.

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

## 1 **Subtitle D—Consumer Protections**

### 2 **SEC. 251. INFORMATION DISCLOSURE.**

3 (a) OFFERS AND SOLICITATIONS.—The Federal  
4 Trade Commission shall issue rules requiring each electric  
5 utility that makes an offer to sell electric energy, or solicits  
6 electric consumers to purchase electric energy to provide  
7 the electric consumer a statement containing the following  
8 information:

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

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

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

18 (4) information the Federal Trade Commission  
19 determines is technologically and economically fea-  
20 sible to provide, is of assistance to electric con-  
21 sumers in making purchasing decisions, and  
22 concerns—

23 (A) the product or its price,

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

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

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

12 **SEC. 252. CONSUMER PRIVACY.**

13 (a) PROHIBITION.—The Federal Trade Commission  
14 shall issue rules prohibiting any electric utility that ob-  
15 tains consumer information in connection with the sale or  
16 delivery of electric energy to an electric consumer from  
17 using, disclosing, or permitting access to such information  
18 unless the electric consumer to whom such information re-  
19 lates provides prior written approval.

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

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

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

7           (3) to protect the rights or property of the per-  
8           son obtaining such information;

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

12          (5) for law enforcement purposes; or

13          (6) for purposes of compliance with any Fed-  
14          eral, State, or local law or regulation authorizing  
15          disclosure of information to a Federal, State, or  
16          local agency.

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

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

24                (1) The term “aggregate consumer informa-  
25                tion” means collective data that relates to a group

1 or category of retail electric consumers, from which  
2 individual consumer identities and characteristics  
3 have been removed.

4 (2) The term “consumer information” means  
5 information that relates to the quantity, technical  
6 configuration, type, destination, or amount of use of  
7 electric energy delivered to any retail electric con-  
8 sumer.

9 **SEC. 253. UNFAIR TRADE PRACTICES.**

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

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

18 **SEC. 254. APPLICABLE PROCEDURES.**

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

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

23 Violation of a rule issued under this subtitle shall be  
24 treated as a violation of a rule under section 18 of the  
25 Federal Trade Commission Act (15 U.S.C. 57a) respect-

1 ing unfair or deceptive acts or practices. All functions and  
2 powers of the Federal Trade Commission under such Act  
3 are available to the Federal Trade Commission to enforce  
4 compliance with this subtitle notwithstanding any jurisdic-  
5 tional limits in such Act.

6 **SEC. 256. STATE AUTHORITY.**

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

14 **SEC. 257. APPLICATION OF SUBTITLE.**

15 The provisions of this subtitle apply to each electric  
16 utility if the total sales of electric energy by such utility  
17 for purposes other than resale exceed 500 million kilowatt-  
18 hours per calendar year. The provisions of this subtitle  
19 do not apply to the operations of an electric utility to the  
20 extent that such operations relate to sales of electric en-  
21 ergy for purposes of resale.

22 **SEC. 258. DEFINITIONS.**

23 As used in this subtitle:

24 (1) The term “aggregate consumer informa-  
25 tion” means collective data that relates to a group

1 or category of electric consumers, from which indi-  
2 vidual consumer identities and identifying character-  
3 istics have been removed.

4 (2) The term “consumer information” means  
5 information that relates to the quantity, technical  
6 configuration, type, destination, or amount of use of  
7 electric energy delivered to an electric consumer.

8 (3) The terms “electric consumer”, “electric  
9 utility”, and “State regulatory authority” have the  
10 meanings given such terms in section 3 of the Public  
11 Utility Regulatory Policies Act of 1978 (16 U.S.C.  
12 2602).

## 13 **Subtitle E—Renewable Energy and** 14 **Rural Construction Grants**

### 15 **SEC. 261. RENEWABLE ENERGY PRODUCTION INCENTIVE.**

16 (a) INCENTIVE PAYMENTS.—Section 1212(a) of the  
17 Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is  
18 amended by striking “and which satisfies” and all that  
19 follows through “Secretary shall establish.” and inserting  
20 the following:

21 “. The Secretary shall establish other procedures nec-  
22 essary for efficient administration of the program. The  
23 Secretary shall not establish any criteria or procedures  
24 that have the effect of assigning to proposals a higher or

1 lower priority for eligibility or allocation of appropriated  
2 funds on the basis of the energy source proposed.”.

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

6 (1) by striking “a State or any political” and  
7 all that follows through “nonprofit electrical cooper-  
8 ative” and inserting the following: “an electricity-  
9 generating cooperative exempt from taxation under  
10 section 501(c)(12) or section 1381(a)(2)(C) of the  
11 Internal Revenue Code of 1986, a public utility de-  
12 scribed in section 115 of such Code, a State, Com-  
13 monwealth, territory, or possession of the United  
14 States or the District of Columbia, or a political  
15 subdivision thereof, or an Indian tribal government  
16 or subdivision thereof,”; and

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

19 (c) ELIGIBILITY WINDOW.—Section 1212(c) of the  
20 Energy Policy Act of 1992 (42 U.S.C. 13317(c)) is  
21 amended by striking “during the 10-fiscal year period be-  
22 ginning with the first full fiscal year occurring after the  
23 enactment of this section” and inserting “before October  
24 1, 2013”.

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

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

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

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

19 “(g) CREMENTAL HYDROPOWER.—

20 “(1) PROGRAMS.—Subject to subsection (h)(2),  
21 if an incremental hydropower program meets the re-  
22 quirements of this section, as determined by the Sec-  
23 retary, the incremental hydropower program shall be  
24 eligible to receive incentive payments under this sec-  
25 tion.

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

7           “(h) AUTHORIZATION OF APPROPRIATIONS.—

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

12          “(2) LIMITATION ON FUNDS USED FOR INCRE-  
13          MENTAL HYDROPOWER PROGRAMS.—Not more than  
14          30 percent of the amounts made available under  
15          paragraph (1) shall be used to carry out programs  
16          described in subsection (g)(2).

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

20 **SEC. 262. ASSESSMENT OF RENEWABLE ENERGY RE-**  
21 **SOURCES.**

22          (a) RESOURCE ASSESSMENT.—Not later than 3  
23          months after the date of enactment of this title, and each  
24          year thereafter, the Secretary of Energy shall review the  
25          available assessments of renewable energy resources avail-

1 able within the United States, including solar, wind, bio-  
2 mass, ocean, geothermal, and hydroelectric energy re-  
3 sources, and undertake new assessments as necessary,  
4 taking into account changes in market conditions, avail-  
5 able technologies and other relevant factors.

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

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

14 (2) such other information as the Secretary of  
15 Energy believes would be useful in developing such  
16 renewable energy resources, including descriptions of  
17 surrounding terrain, population and load centers,  
18 nearby energy infrastructure, location of energy and  
19 water resources, and available estimates of the costs  
20 needed to develop each resource.

21 **SEC. 263. FEDERAL PURCHASE REQUIREMENT.**

22 (a) REQUIREMENT.—The President shall ensure  
23 that, of the total amount of electric energy the federal gov-  
24 ernment consumes during any fiscal year—

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

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

5           (3) not less than 7.5 percent in fiscal year 2010  
6 and each fiscal year thereafter—shall be renewable  
7 energy. The President shall encourage the use of in-  
8 novative purchasing practices, including aggregation  
9 and the use of renewable energy derivatives, by fed-  
10 eral agencies.

11       (b) DEFINITION.—For purposes of this section, the  
12 term “renewable energy” means electric energy generated  
13 from solar, wind, biomass, geothermal, fuel cells, or addi-  
14 tional hydroelectric generation capacity achieved from in-  
15 creased efficiency or additions of new capacity at an exist-  
16 ing hydroelectric dam.

17       (c) TRIBAL POWER GENERATION.—To the maximum  
18 extent practicable, the President shall ensure that not less  
19 than one-tenth of the amount specified in subsection (a)  
20 shall be renewable energy that is generated by an Indian  
21 tribe or by a corporation, partnership, or business associa-  
22 tion which is wholly or majority owned, directly or indi-  
23 rectly, by an Indian tribe. For purposes of this subsection,  
24 the term “Indian tribe” means any Indian tribe, band, na-  
25 tion, or other organized group or community, including

1 any Alaska Native village or regional or village corporation  
2 as defined in or established pursuant to the Alaska Native  
3 Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
4 is recognized as eligible for the special programs and serv-  
5 ices provided by the United States to Indians because of  
6 their status as Indians.

7 **SEC. 264. RURAL CONSTRUCTION GRANTS.**

8 Section 313 of the Rural Electrification Act of 1936  
9 (7 U.S.C. 940c) is amended by adding after subsection  
10 (b) the following:

11 “(c) RURAL AND REMOTE COMMUNITIES ELEC-  
12 TRIFICATION GRANTS.—The Secretary of Agriculture, in  
13 consultation with the Secretary of Energy and the Sec-  
14 retary of the Interior, may provide grants to eligible bor-  
15 rowers under this Act for the purpose of increasing energy  
16 efficiency, siting or upgrading transmission and distribu-  
17 tion lines, or providing or modernizing electric facilities  
18 for—

19 “(1) a unit of local government of a State or  
20 territory; or

21 “(2) an Indian tribe.

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

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

4       “(f) DEFINITION.—For purposes of this section, the  
5 term ‘Indian tribe’ means any Indian tribe, band, nation,  
6 or other organized group or community, including any  
7 Alaska Native village or regional or village corporation as  
8 defined in or established pursuant to the Alaska Native  
9 Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
10 is recognized as eligible for the special programs and serv-  
11 ices provided by the United States to Indians because of  
12 their status as Indians;

13       “(e) AUTHORIZATION.—For the purpose of carrying  
14 out subsection (c), there are authorized to be appropriated  
15 to the Secretary \$20,000,000 for each of the seven fiscal  
16 years following the date of enactment of this subsection.”.

17 **SEC. 265. RENEWABLE PORTFOLIO STANDARD.**

18       Title VI of the Public Utility Regulatory Policies Act  
19 of 1978 is further amended by adding at the end the fol-  
20 lowing:

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

22       “(a) MINIMUM RENEWABLE GENERATION REQUIRE-  
23 MENT.—For each calendar year beginning with 2003, each  
24 retail electric supplier shall submit to the Secretary renew-  
25 able energy credits in an amount equal to the required

1 annual percentage, specified in subsection (b), of the total  
2 electric energy sold by the retail electric supplier to electric  
3 consumers in the calendar year. The retail electric supplier  
4 shall make this submission before April 1 of the following  
5 calendar year.

6 “(b) REQUIRED ANNUAL PERCENTAGE.—

7 “(1) For calendar years 2003 and 2004, the re-  
8 quired annual percentage shall be determined by the  
9 Secretary in an amount less than the amount in  
10 paragraph (2);

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

14 “(3) For each calendar year from 2006 through  
15 2020, the required annual percentage of the retail  
16 electric supplier’s base amount shall be .5 percent  
17 greater than the required annual percentage for the  
18 calendar year immediately preceding.

19 “(c) SUBMISSION OF CREDITS.—(1) A retail electric  
20 supplier may satisfy the requirements of subsection (a)  
21 through the submission of—

22 “(A) renewable energy credits issued under sub-  
23 section (d) for renewable energy generated by the re-  
24 tail electric supplier in the calendar year for which

1 credits are being submitted or any of the two pre-  
2 vious calendar years;

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

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

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

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

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

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

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

21 “(B) the State in which the electric energy was  
22 produced, and

23 “(C) any other information the Secretary deter-  
24 mines appropriate.

1       “(3)(A) Except as provided in paragraphs (B) and  
2 (C), the Secretary shall issue to an entity one renewable  
3 energy credit for each kilowatt-hour of electric energy the  
4 entity generates in calendar year 2002 and any succeeding  
5 year through the use of a renewable energy resource at  
6 an eligible facility in any State.

7       “(B) For incremental hydropower the credits shall be  
8 calculated based on a normalized annual capacity factor  
9 for each facility, and not actual generation. The calcula-  
10 tion of the credits for incremental hydropower shall not  
11 be based on any operational changes at the hydroelectric  
12 facility not directly associated with the efficiency improve-  
13 ments or capacity additions.

14       “(C) The Secretary shall issue two renewable energy  
15 credits for each kilowatt-hour of electric energy generated  
16 in calendar year 2002 and any succeeding year through  
17 the use of a renewable energy resource at an eligible facil-  
18 ity in any State, if the generating facility is located on  
19 Indian land. For purposes of this paragraph, renewable  
20 energy generated by biomass cofired with other fuels is  
21 eligible for two credits only if the biomass was grown on  
22 the land eligible under this paragraph.

23       “(D) To be eligible for a renewable energy credit, the  
24 unit of electric energy generated through the use of a re-  
25 newable energy resource may be sold or may be used by

1 the generator. If both a renewable energy resource and  
2 a non-renewable energy resource are used to generate the  
3 electric energy, the Secretary shall issue credits based on  
4 the proportion of the renewable energy resource used. The  
5 Secretary shall identify renewable energy credits by type  
6 of generation and by the State in which the generating  
7 facility is located.

8       “(4) In order to receive a renewable energy credit,  
9 the recipient of a renewable energy credit shall pay a fee,  
10 calculated by the Secretary, in an amount that is equal  
11 to the administrative costs of issuing, recording, moni-  
12 toring the sale or exchange of, and tracking the credit or  
13 does not exceed five percent of the dollar value of the cred-  
14 it, whichever is lower. The Secretary shall retain the fee  
15 and use it to pay these administrative costs.

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

22       “(e) CREDIT TRADING.—A renewable energy credit  
23 may be sold or exchanged by the entity to whom issued  
24 or by any other entity who acquires the credit. A renew-  
25 able energy credit for any year that is not used to satisfy

1 the minimum renewable generation requirement of sub-  
2 section (a) for that year may be carried forward for use  
3 in another year.

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

8 “(1) submit a plan to the Secretary dem-  
9 onstrating that the retail electric supplier will earn  
10 sufficient credits within the next 3 calendar years  
11 which, when taken into account, will enable the re-  
12 tail electric supplier to meet the requirements of  
13 subsection (a) for the calendar year involved; and

14 “(2) upon the approval of the plan by the Sec-  
15 retary, apply credits that the plan demonstrates will  
16 be earned within the next 3 calendar years to meet  
17 the requirements of subsection (a) for the calendar  
18 year involved.

19 “(g) ENFORCEMENT.—The Secretary may bring an  
20 action in the appropriate United States district court to  
21 impose a civil penalty on a retail electric supplier that does  
22 not comply with subsection (a). A retail electric supplier  
23 who does not submit the required number of renewable  
24 energy credits under subsection (a) is subject to a civil

1 penalty of not more than 3 cents each for the renewable  
2 energy credits not submitted.

3 “(h) INFORMATION COLLECTION.—The Secretary  
4 may collect the information necessary to verify and  
5 audit—

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

9 “(2) the validity of renewable energy credits  
10 submitted by a retail electric supplier to the Sec-  
11 retary, and

12 “(3) the quantity of electricity sales of all retail  
13 electric suppliers.

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

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

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

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

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

25 or

1           “(B) a repowering or cofiring increment  
2           that is placed in service on or after January 1,  
3           2002 at a facility for the generation of electric  
4           energy from a renewable energy resource that  
5           was placed in service before January 1, 2002.

6 An eligible facility does not have to be interconnected to  
7 the transmission or distribution system facilities of an  
8 electric utility.

9           “(2) The term ‘generation offset’ means re-  
10          duced electricity usage metered at a site where a  
11          customer consumes electricity from a renewable en-  
12          ergy technology.

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

18          “(4) The term ‘Indian land’ means—

19                 “(A) any land within the limits of any In-  
20                 dian reservation, pueblo or rancharia,

21                 “(B) any land not within the limits of any  
22                 Indian reservation, pueblo or rancharia title to  
23                 which was on the date of enactment of this  
24                 paragraph either held by the United States for  
25                 the benefit of any Indian tribe or individual or

1 held by any Indian tribe or individual subject to  
2 restriction by the United States against alien-  
3 ation,

4 “(C) any dependent Indian community,  
5 and

6 “(D) any land conveyed to any Alaska Na-  
7 tive corporation under the Alaska Native  
8 Claims Settlement Act.

9 “(5) The term ‘Indian tribe’ means any Indian  
10 tribe, band, nation, or other organized group or com-  
11 munity, including any Alaska Native village or re-  
12 gional or village corporation as defined in or estab-  
13 lished pursuant to the Alaska Native Claims Settle-  
14 ment Act (43 U.S.C. 1601 et seq.), which is recog-  
15 nized as eligible for the special programs and serv-  
16 ices provided by the United States to Indians be-  
17 cause of their status as Indians.

18 “(6) The term ‘renewable energy’ means elec-  
19 tric energy generated by a renewable energy re-  
20 source.

21 “(7) The term ‘renewable energy resource’  
22 means solar, wind, biomass, ocean, or geothermal  
23 energy, a generation offset, or incremental hydro-  
24 power facility.

1           “(8) The term ‘repowering or cofiring incre-  
2           ment’ means the additional generation from a modi-  
3           fication that is placed in service on or after January  
4           1, 2002 to expand electricity production at a facility  
5           used to generate electric energy from a renewable  
6           energy resource or to cofire biomass that was placed  
7           in service before January 1, 2002.

8           “(9) The term ‘retail electric supplier’ means a  
9           person, State agency, or Federal agency that sells  
10          electric energy to electric consumers and sold not  
11          less than 500,000,000 kilowatt-hours of electric en-  
12          ergy to electric consumers for purposes other than  
13          resale during the preceding calendar year.

14          “(10) The term ‘retail electric supplier’s base  
15          amount’ means the total amount of electric energy  
16          sold by the retail electric supplier to electric cus-  
17          tomers during the most recent calendar year for  
18          which information is available, excluding electric en-  
19          ergy generated by a renewable energy resource, land-  
20          fill gas, or a hydroelectric facility.

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

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

24          (a) PILOT PROGRAM.—Within 12 months after the  
25          date of enactment of this section, the Secretary of the In-

1 terior, in consultation with the Secretaries of Agriculture  
2 and Energy, shall develop guidelines for a pilot program  
3 for the development of wind and solar energy on Federal  
4 land.

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

9 (1) public land as defined in section 103(e) of  
10 the Federal Land Policy and Management Act of  
11 1976 (42 U.S.C. 1702(e)); or

12 (2) a unit of the National Forest System as  
13 that term is used in section 11(a) of the Forest and  
14 Rangeland Renewable Resources Planning Act of  
15 1974 (16 U.S.C. 1609(a)).

16 (c) RIGHTS-OF-WAYS.—The pilot program shall pro-  
17 vide for the issuance of rights-of-way pursuant to the pro-  
18 visions of title V of the Federal Land Policy and Manage-  
19 ment Act of 1976 (43 U.S.C. 1761 et seq.) by the Sec-  
20 retary of the Interior with respect to Federal land under  
21 the jurisdiction of the Department of the Interior, and by  
22 the Secretary of Agriculture with respect to federal lands  
23 under the jurisdiction of the Department of Agriculture.

1 (d) ELIGIBLE SITES.—For purposes of this pilot pro-  
2 gram, the issuance of rights-of-way shall be limited to  
3 areas:

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

6 (2) that have been identified by the wind or  
7 solar energy industry, through a process of nomina-  
8 tions or otherwise, as being of particular interest to  
9 one or both industries;

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

11 (4) where operation of wind or solar facilities  
12 would be compatible with the scenic, recreational,  
13 environmental, cultural, or historic values of the  
14 Federal land, and would not require the construction  
15 of new roads for the siting of lines or other trans-  
16 mission facilities; and

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

20 (e) COST-SHARE PAYMENTS BY DOE.—The Sec-  
21 retary of Energy, in cooperation with the Secretary of the  
22 Interior with respect to Federal land under the jurisdic-  
23 tion of the Department of the Interior, and the Secretary  
24 of Agriculture with respect to Federal land under the ju-  
25 risdiction of the Department of Agriculture, shall deter-

1 mine if a project is eligible for funding pursuant to this  
2 section. Only those projects that are consistent with the  
3 requirements of this section and further the purposes of  
4 this section shall be eligible. In the event a project is se-  
5 lected for funding, the Secretary of Energy shall provide  
6 no more than 15 percent of the costs of the project, and  
7 the remainder of the costs shall be paid by non-Federal  
8 sources.

9 (f) REVISION OF LAND USE PLANS.—The Secretary  
10 of the Interior shall consider development of wind and  
11 solar energy, as appropriate, in revisions of land use plans  
12 under section 202 of the Federal Land Policy and Man-  
13 agement Act of 1976 (42 U.S.C. 1712); and the Secretary  
14 of Agriculture shall consider development of wind and  
15 solar energy, as appropriate, in revisions of land and re-  
16 source management plans under section 5 of the Forest  
17 and Rangeland Renewable Resources Planning Act of  
18 1974 (16 U.S.C. 1604). Nothing in this subsection shall  
19 preclude the issuance of a right-of-way for the develop-  
20 ment of a wind or solar energy project prior to the revision  
21 of a land use plan by the appropriate land management  
22 agency.

23 (g) REPORT TO CONGRESS.—Within 24 months after  
24 the date of enactment of this section, the Secretary of the  
25 Interior shall develop and report to Congress recommenda-

1 tions on any statutory or regulatory changes the Secretary  
2 believes would assist in the development of renewable en-  
3 ergy on Federal land. The report shall include—

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

9 (2) an analysis of—

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

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

19 (C) any problems, including environmental  
20 concerns, which the Secretary of the Interior or  
21 the Secretary of Agriculture have encountered  
22 in managing wind or solar energy projects on  
23 Federal land, or believe are likely to arise in re-  
24 lation to the development of wind or solar en-  
25 ergy on Federal land;

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

8           (4) an analysis, developed in consultation with  
9           the Secretaries of Energy and Commerce, of the po-  
10          tential for development of wind, solar, and ocean en-  
11          ergy on the Outer Continental Shelf, along with rec-  
12          ommended statutory and regulatory mechanisms for  
13          such development.

14           **TITLE III—HYDROELECTRIC**  
15           **RELICENSING**

16   **SEC. 301. ALTERNATIVE CONDITIONS.**

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

20           “(h)(1) Whenever any person applies for a license for  
21          any project works within any reservation of the United  
22          States under subsection (e), and the Secretary of the de-  
23          partment under whose supervision such reservation falls  
24          (in this subsection referred to as the ‘Secretary’) shall  
25          deem a condition to such license to be necessary under

1 the first proviso of such section, the license applicant may  
2 propose an alternative condition that will either—

3           “(A) cost less to implement, or

4           “(B) result in improved operation of the project  
5 works for electricity production.

6           “(2) Notwithstanding the first proviso of subsection  
7 (e), the Secretary shall accept the alternative condition  
8 proposed by the license applicant, and the Commission  
9 shall include in the license such alternative condition, if  
10 the Secretary determines that the alternative condition  
11 provides no less protection for the reservation than pro-  
12 vided by the condition deemed necessary by the Secretary.

13           “(3) The Secretary shall give interested persons other  
14 than the license applicant an opportunity to propose alter-  
15 native conditions. After consideration of the relevant mat-  
16 ter presented, the Secretary shall accept or reject each  
17 proposed condition.

18           “(4) The Secretary shall submit to the Commission  
19 with any condition under subsection (e) or alternative con-  
20 dition it accepts under this subsection a written statement  
21 explaining the basis for accepting such condition and for  
22 not accepting any condition proposed by the license appli-  
23 cant under paragraph (1) or by an interested person under  
24 paragraph (3), along with all studies, data, and other in-  
25 formation on which the Secretary based his decision.

1       “(5) The Commission shall place any statement,  
2 study, data, or other information received from the Sec-  
3 retary under paragraph (4) on the public record of the  
4 licensing proceeding.

5       “(6) The Secretary shall establish schedules for the  
6 submission of proposed conditions and the review of the  
7 acceptance or rejection of proposed conditions as may be  
8 necessary to coordinate with the Commission’s license ap-  
9 plication process.”.

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

12               (1) inserting “(a)” before the first sentence;

13               and

14               (2) adding at the end the following:

15       “(b)(1) Whenever the Commission shall require a li-  
16 censee to construct, maintain, or operate a fishway pre-  
17 scribed by the Secretary of the Interior or the Secretary  
18 of Commerce under this section, the licensee may propose  
19 an alternative that will either—

20               “(A) cost less to implement, or

21               “(B) result in improved operation of the project  
22 works for electricity production.

23       “(2) Notwithstanding subsection (a), the Secretary of  
24 the Interior or the Secretary of Commerce, as appropriate,  
25 shall accept and prescribe, and the Commission shall re-

1 quire, the alternative proposed by the licensee, if the Sec-  
2 retary of the appropriate department determines that the  
3 alternative will be no less effective than the fishway ini-  
4 tially prescribed by the Secretary.

5 “(3) The Secretary of the appropriate department  
6 shall give interested persons other than the licensee an op-  
7 portunity to propose alternative fishway prescriptions.  
8 After consideration of the relevant matter presented, the  
9 Secretary shall accept or reject each proposed alternative.

10 “(4) The Secretary of the appropriate department  
11 shall submit to the Commission with any fishway prescrip-  
12 tion under subsection (a) or alternative fishway prescrip-  
13 tion it accepts under this subsection a written statement  
14 explaining the basis for accepting such prescription and  
15 for not accepting any prescription proposed by the licensee  
16 under paragraph (1) or by an interested person under  
17 paragraph (3), along with all studies, data, and other in-  
18 formation on which the Secretary based his decision.

19 “(5) The Commission shall place any statement,  
20 study, data, or other information received from the Sec-  
21 retary under paragraph (4) on the public record of the  
22 licensing proceeding.

23 “(6) The Secretary of the appropriate department  
24 shall establish schedules for the submission of proposed  
25 conditions and the review of the acceptance or rejection

1 of proposed conditions as may be necessary to coordinate  
2 with the Commission’s license application process.”.

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

4 Section 10(e)(1) of the Federal Power Act (16 U.S.C.  
5 803(e)(1) is amended by inserting after the second proviso  
6 the following: “*Provided further*, That the Commission  
7 shall not issue a new or original license for projects involv-  
8 ing tribal lands embraced within Indian reservations until  
9 annual charges required under this section have been  
10 fixed.”

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

12 Section 17 of the Federal Power Act (16 U.S.C. 810)  
13 is further amended—

14 (1) by striking “is hereby appropriated to be  
15 paid into the Treasury of the United States and  
16 credited to ‘Miscellaneous receipts’” and inserting  
17 “shall be reserved, subject to appropriation, for the  
18 purpose of carrying out activities for the protection  
19 of water resources under subsection (c)”;

20 (2) by adding at the end the following:

21 “(c)(1) Of the amount reserved for the protection of  
22 water resources under subsection (a), there are authorized  
23 to be appropriated to the Secretary responsible for the res-  
24 ervation from which the charges were paid such sums as  
25 may be necessary for the purpose of carrying out activities

1 for the protection of the water resources on or for the ben-  
2 efit of—

3           “(A) the reservation on which the project for  
4           which the charges were paid is located; or

5           “(B) the reservation on which the headwaters  
6           of the waterway, on which the project for which the  
7           charges were paid, is located.

8           “(2) For purposes of this subsection, activities for the  
9 protection of water resources for which funds are author-  
10 ized to be appropriated under this subsection may be used  
11 may only include the following:

12           “(A) promoting the recovery of threatened and  
13           endangered species;

14           “(B) road and trail assessments and plans,  
15           maintenance, obliteration, or closure;

16           “(C) wildlife and fish habitat management;

17           “(D) multiparty monitoring of water protection  
18           activities;

19           “(E) watershed analysis, including resource  
20           conditions and trend assessments;

21           “(F) erosion control and restoring hydrologic  
22           function to meadows, wetlands, and floodplains; and

23           “(G) job training associated with paragraph  
24           (3).

1       “(3) In carrying out the activities provided for in  
2 paragraph (2) and in order to provide employment and  
3 job training opportunities to residents of rural commu-  
4 nities located within or near a reservation identified in  
5 paragraph (1), the Secretary may make grants or enter  
6 into cooperative agreements or contracts with—

7               “(A) a private, non-profit, or cooperative entity  
8 within the same county as the reservation;

9               “(B) businesses that employ 25 or less employ-  
10 ees;

11               “(C) an entity that will hire or train residents  
12 of communities located within or near the reserva-  
13 tion to perform the contract; or

14               “(D) the Youth Conservation Corps or related  
15 partnerships with State, local, or non-profit youth  
16 groups.”.

17 **SEC. 304. ANNUAL LICENSES.**

18       Section 15(a) of the Federal Power Act (16 U.S.C.  
19 808(a)) is amended by adding at the end the following:

20               “(4) Prior to issuing a fourth and subsequent  
21 annual license under paragraph (1), the Commission  
22 shall first consult with the Secretary of the Interior  
23 and the Secretary of Commerce, and if the project  
24 is within any reservation, with the Secretary under  
25 whose supervision such reservation falls.

1           “(5) Prior to issuing a fourth and subsequent  
2           annual license under paragraph (1), the Commission  
3           shall publish a written statement setting forth the  
4           reasons why the annual license is needed, and de-  
5           scribing the results of consultation with the Sec-  
6           retary of the Interior, the Secretary of Commerce,  
7           and the Secretary under whose supervision the res-  
8           ervation falls. Such explanation shall also contain  
9           the best judgement of the Commission as to whether  
10          the Commission anticipates issuing an additional an-  
11          nual license, and if so, the likely terms and condi-  
12          tions of such additional annual license.

13           “(6) At least 60 days prior to expiration of the  
14          seventh and subsequent annual licenses issued under  
15          paragraph (1), the Commission shall submit to Con-  
16          gress the written statement required in paragraph  
17          (5).”.

18 **SEC. 305. ENFORCEMENT.**

19          (a) MONITORING AND INVESTIGATIONS OF MANDA-  
20          TORY CONDITIONS AND FISHWAY PRESCRIPTIONS.—The  
21          first sentence of section 31(a) of the Federal Power Act  
22          (16 U.S.C. 823b(a)) is amended to read as follows: “The  
23          Commission shall monitor and investigate compliance with  
24          each license and permit issued under this Part, each condi-  
25          tion imposed under section 4(e) or 4(h), each fishway pre-

1 scription imposed under section 18, and each exemption  
2 granted from any requirement of this Part.”

3 (b) COMPLIANCE ORDERS.—The third sentence of  
4 section 31(a) of the Federal Power Act (16 U.S.C. 823(a))  
5 is amended to read as follows: “After notice and oppor-  
6 tunity for public hearing, the Commission may issue such  
7 orders as necessary to require compliance with the terms  
8 and conditions of licenses and permits issued under this  
9 Part, with conditions imposed under section 4(e) or 4(h),  
10 with fishway prescriptions imposed under section 18, and  
11 with the terms and conditions of exemptions granted from  
12 any requirement of this Part.”

13 **SEC. 306. ESTABLISHMENT OF HYDROELECTRIC RELI-**  
14 **CENSING PROCEDURES.**

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

17 (1) Within 18 months after the date of enact-  
18 ment of this section, the Commission, the Secretary  
19 of the Interior, the Secretary of Commerce, and the  
20 Secretary of Agriculture, shall, after public review  
21 and comment, issue coordinated regulations gov-  
22 erning the issuance of a license under section 15 of  
23 the Federal Power Act (16 U.S.C. 808).

24 (2) Such regulations shall provide for—

1 (A) the participation of the Commission in  
2 the pre-application environmental scoping pro-  
3 cess conducted by the resource agencies pursu-  
4 ant to section 15(b) of the Federal Power Act  
5 (16 U.S.C. 808(b)), sufficient to allow the Com-  
6 mission and the resource agencies to coordinate  
7 environmental reviews and other regulatory pro-  
8 cedures of the Commission and the resource  
9 agencies under Part I of the Federal Power  
10 Act, and under the National Environmental  
11 Policy Act of 1969 (42 U.S.C. 4321 et seq.).

12 (B) issuance by the resource agencies of  
13 draft and final mandatory conditions under sec-  
14 tion 4(e) of the Federal Power Act (16 U.S.C.  
15 797(e)), and draft and final fishway prescrip-  
16 tions under section 18 of the Federal Power  
17 Act (16 U.S.C. 811);

18 (C) to the maximum extent possible, iden-  
19 tification by the Commission staff in the draft  
20 analysis of the license application conducted  
21 under the National Environmental Policy Act,  
22 of all license articles and license conditions the  
23 Commission is likely to include in the license;

24 (D) coordination by the Commission and  
25 the resource agencies of analysis under the Na-

1           tional Environmental Policy Act for final license  
2           articles and conditions recommended by Com-  
3           mission staff, and the final mandatory condi-  
4           tions and fishway prescriptions of the resource  
5           agencies; and

6                   (E) procedures for ensuring coordination  
7           and sharing, to the maximum extent possible, of  
8           information, studies, data and analysis by the  
9           Commission and the resource agencies to reduce  
10          the need for duplicative studies and analysis by  
11          license applicants and other parties to the li-  
12          cense proceeding.

13          (b) PROCEDURES OF THE COMMISSION.—Within 18  
14          months after the date of enactment of this section, the  
15          Commission shall, after public comment and review, issue  
16          additional regulations governing the issuance of a license  
17          under section 15 of the Federal Power Act (16 U.S.C.  
18          808). Such regulations shall—

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

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

23                          (B) advanced notice to resource agencies of  
24                          the issuance of the Ready for Environmental  
25                          Analysis Notice requesting submission of rec-

1           ommendations, conditions, prescriptions, and  
2           comments;

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

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

9           (2) set deadlines for an applicant to conduct all  
10          needed resource studies in support of its license ap-  
11          plication;

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

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

19 **SEC. 307. RELICENSING STUDY.**

20          (a) IN GENERAL.—The Federal Energy Regulatory  
21          Commission shall, jointly with the Secretary of Commerce,  
22          the Secretary of the Interior, and the Secretary of Agri-  
23          culture, conduct a study of all new licenses issued for ex-  
24          isting projects under section 15 of the Federal Power Act  
25          (16 U.S.C. 808) since January 1, 1994.

1 (b) SCOPE.—The study shall analyze:

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

5 (2) the additional cost to the licensee attrib-  
6 utable to new license conditions;

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

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

11 (5) significant unmitigated environmental dam-  
12 age of the project and costs to mitigate such dam-  
13 age; and

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

18 (c) DEFINITION.—As used in this section, the term  
19 “new license condition” means any condition imposed  
20 under—

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

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

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

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

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

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

9           (d) CONSULTATION.—The Commission shall give in-  
10          terested persons and licensees an opportunity to submit  
11          information and views in writing.

12          (e) REPORT.—The Commission shall report its find-  
13          ings to the Committee on Energy and Natural Resources  
14          of the United States Senate and the Committee on Energy  
15          and Commerce of the House of Representatives not later  
16          than 24 months after the date of enactment of this sec-  
17          tion.

18          **SEC. 308. DATA COLLECTION PROCEDURES.**

19          Within 24 months after the date of enactment of this  
20          section, the Federal Energy Regulatory Commission, the  
21          Secretary of the Interior, the Secretary of Commerce, and  
22          the Secretary of Agriculture shall jointly develop proce-  
23          dures for ensuring complete and accurate information con-  
24          cerning the time and cost to parties in the hydroelectric  
25          licensing process under part I of the Federal Power Act

1 (16 U.S.C. 791 et seq.). Such data shall be published reg-  
 2 ularly, but no less frequently than every three years.

### 3 **TITLE IV—INDIAN ENERGY**

#### 4 **SEC. 401. COMPREHENSIVE INDIAN ENERGY PROGRAM.**

5 Title XXVI of the Energy Policy Act of 1992 (25  
 6 U.S.C. 3501–3506) is amended by adding after section  
 7 2606 the following:

#### 8 **“SEC. 2607. COMPREHENSIVE INDIAN ENERGY PROGRAM.**

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

10 “(1) the term ‘Director’ means the Director of  
 11 the Office of Indian Energy Policy and Programs es-  
 12 tablished by section 217 of the Department of En-  
 13 ergy Organization Act, and

14 “(2) the term ‘Indian land’ means—

15 “(A) any land within the limits of an In-  
 16 dian reservation, pueblo, or rancharia;

17 “(B) any land not within the limits of an  
 18 Indian reservation, pueblo, or rancharia whose  
 19 title on the date of enactment of this section  
 20 was held—

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

23 “(ii) by an Indian tribe subject to re-  
 24 striction by the United States against  
 25 alienation, or

1                   “(iii) by a dependent Indian commu-  
2                   nity; and

3                   “(C) land conveyed to an Alaska Native  
4                   Corporation under the Alaska Native Claims  
5                   Settlement Act.

6                   “(b) INDIAN ENERGY EDUCATION PLANNING AND  
7                   MANAGEMENT ASSISTANCE.—

8                   “(1) The Director shall establish programs  
9                   within the Office of Indian Energy Policy and Pro-  
10                  grams to assist Indian tribes in meeting their energy  
11                  education, research and development, planning, and  
12                  management needs.

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

15                  “(A) renewable energy, energy efficiency,  
16                  and conservation programs;

17                  “(B) studies and other activities sup-  
18                  porting tribal acquisition of energy supplies,  
19                  services, and facilities;

20                  “(C) planning, constructing, developing,  
21                  operating, maintaining, and improving tribal  
22                  electrical generation, transmission, and dis-  
23                  tribution facilities; and

24                  “(D) developing, constructing, and inter-  
25                  connecting electric power transmission facilities

1 with transmission facilities owned and operated  
2 by a Federal power marketing agency or an  
3 electric utility that provides open access trans-  
4 mission service.

5 “(3) The Director may develop, in consultation  
6 with Indian tribes, a formula for making grants  
7 under this section. The formula may take into ac-  
8 count the following—

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

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

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

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

18 “(4) In making a grant under paragraph (2),  
19 the Director shall give priority to an application re-  
20 ceived from an Indian tribe that is not served or is  
21 served inadequately by an electric utility, as that  
22 term is defined in section 3(4) of the Public Utility  
23 Regulatory Policies Act of 1978 (16 U.S.C.  
24 2602(4)), or by a person, State agency, or any other  
25 non-federal entity that owns or operates a local dis-

1       tribution facility used for the sale of electric energy  
2       to an electric consumer.

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

6               “(6) The Secretary is authorized to promulgate  
7       such regulations as the Secretary determines to be  
8       necessary to carry out the provisions of this sub-  
9       section.

10       “(c) LOAN GUARANTEE PROGRAM.—

11               “(1) AUTHORITY.—The Secretary may guar-  
12       antee not more than 90 percent of the unpaid prin-  
13       cipal and interest due on any loan made to any In-  
14       dian tribe for energy development, including the  
15       planning, development, construction, and mainte-  
16       nance of electrical generation plants, and for trans-  
17       mission and delivery mechanisms for electricity pro-  
18       duced on Indian land. A loan guaranteed under this  
19       subsection shall be made by—

20                       “(A) a financial institution subject to the  
21                       examination of the Secretary; or

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

24               “(2) AVAILABILITY OF APPROPRIATIONS.—

25       Amounts appropriated to cover the cost of loan

1       guarantees shall be available without fiscal year limi-  
2       tation to the Secretary to fulfill obligations arising  
3       under this subsection.

4           “(3) AUTHORIZATION OF APPROPRIATIONS.—

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

10          “(B) There are authorized to be appro-  
11       priated to the Secretary such sums as may be  
12       necessary to cover the administrative expenses  
13       related to carrying out the loan guarantee pro-  
14       gram established by this subsection.

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

19          “(5) REGULATIONS.—The Secretary is author-  
20       ized to promulgate such regulations as the Secretary  
21       determines to be necessary to carry out the provi-  
22       sions of this subsection.

23          “(d) INDIAN ENERGY PREFERENCE.—(1) An agency  
24       or department of the United States Government may give,  
25       in the purchase of electricity, oil, gas, coal, or other energy

1 product or by-product, preference in such purchase to an  
 2 energy and resource production enterprise, partnership,  
 3 corporation, or other type of business organization major-  
 4 ity or wholly owned and controlled by a tribal government.

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

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

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

14 “(2) alter Federal laws under which a Federal  
 15 power marketing agency markets, allocates, or pur-  
 16 chases power.”.

17 **SEC. 402. OFFICE OF INDIAN ENERGY POLICY AND PRO-**  
 18 **GRAMS.**

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

21 “OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS.

22 “SEC. 217. (a) There is established within the De-  
 23 partment an Office of Indian Energy Policy and Pro-  
 24 grams. This Office shall be headed by a Director, who  
 25 shall be appointed by the Secretary and compensated at

1 the rate equal to that of level IV of the Executive Schedule  
2 under section 5315 of Title 5, United States Code.

3 “(b) The Director shall provide, direct, foster, coordi-  
4 nate, and implement energy planning, education, manage-  
5 ment, conservation, and delivery programs of the Depart-  
6 ment that—

7 “(1) promote tribal energy efficiency and utili-  
8 zation;

9 “(2) modernize and develop, for the benefit of  
10 Indian tribes, tribal energy and economic infrastruc-  
11 ture related to natural resource development and  
12 electrification;

13 “(3) preserve and promote tribal sovereignty  
14 and self determination related to energy matters and  
15 energy deregulation;

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

17 “(5) electrify tribal members’ homes and tribal  
18 lands.

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

22 **SEC. 403. CONFORMING AMENDMENTS.**

23 (a) **AUTHORIZATION OF APPROPRIATIONS.**—Section  
24 2603(c) of the Energy Policy Act of 1992 (25 U.S.C.  
25 3503(c)) is amended to read as follows:

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

4       (b) TABLE OF CONTENTS.—The Table of Contents  
5 of the Department of Energy Act is amended by inserting  
6 after the item relating to section 216 the following new  
7 item:

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

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

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

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

15           (1) INDIAN TRIBE.—The term “Indian tribe”  
16 means any Indian tribe, band, nation, or other orga-  
17 nized group or community, which is recognized as el-  
18 igible for the special programs and services provided  
19 by the United States to Indians because of their sta-  
20 tus as Indians, except that such term does not in-  
21 clude any Regional Corporation as defined in section  
22 3(g) of the Alaska Native Claims Settlement Act (43  
23 U.S.C. 1602(g)).

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

1       versely affected by the decision of an Indian tribe to  
2       grant a lease or right-of-way pursuant to this sec-  
3       tion.

4           (3) PETITION.—The term “petition” means a  
5       written request submitted to the Secretary for the  
6       review of an action (or inaction) of the Indian tribe  
7       that is claimed to be in violation of the approved  
8       tribal regulations;

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

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

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

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

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

1                   lished by treaty, executive order, or secre-  
2                   tarial order.

3                   (5) SECRETARY.—The term “Secretary” means  
4                   the Secretary of the Interior.

5                   (6) TRIBAL LANDS.—The term “tribal lands”  
6                   means any tribal trust lands or other lands owned  
7                   by an Indian tribe that are within a reservation, or  
8                   tribal trust lands located contiguous thereto.

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

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

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

5           (2) the pipeline or electric transmission or dis-  
6 tribution line serves—

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

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

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

16         (e) TRIBAL REGULATION REQUIREMENTS.—

17           (1) The Secretary shall have the authority to  
18 approve or disapprove tribal regulations required  
19 under this subsection. The Secretary shall approve  
20 such tribal regulations if they are comprehensive in  
21 nature, including provisions that address—

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

24                 (B) term of the conveyance;

25                 (C) amendments and renewals;

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

3 (E) technical or other relevant require-  
4 ments;

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

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

9 (H) final approval authority.

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

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

17 (A) an identification and evaluation of all  
18 significant environmental impacts of the pro-  
19 posed action as compared to a no action alter-  
20 native;

21 (B) identification of proposed mitigation;

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

1           (D) sufficient administrative support and  
2           technical capability to carry out the environ-  
3           mental review process.

4           (4) The Secretary shall review and approve or  
5           disapprove the regulations of the Indian tribe within  
6           180 days of the submission of such regulations to  
7           the Secretary. Any disapproval of such regulations  
8           by the Secretary shall be accompanied by written  
9           documentation that sets forth the basis for the dis-  
10          approval. The 180-day period may be extended by  
11          the Secretary after consultation with the Indian  
12          tribe.

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

17                 (A) a copy of the lease or right-of-way doc-  
18                 ument and all amendments and renewals there-  
19                 to; and

20                 (B) in the case of regulations or a lease or  
21                 right-of-way that permits payment to be made  
22                 directly to the Indian tribe, documentation of  
23                 the payments sufficient to enable the Secretary  
24                 to discharge the trust responsibility of the

1 United States as appropriate under existing  
2 law.

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

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

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

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

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

4           (iii) prior to the exercise of any remedy or  
5 the rescission of the approval of the regulations  
6 involved and reassumption of the lease or right-  
7 of-way approval responsibility, provide the In-  
8 dian tribe with a hearing and a reasonable op-  
9 portunity to cure the alleged violation.

10          (C) The tribe shall retain all rights to appeal as  
11 provided by regulations promulgated by the Sec-  
12 retary.

13          (f) AGREEMENTS.—

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

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

5           (g) **DISCLAIMER.**—Nothing in this section is intended  
6           to modify or otherwise affect the applicability of any provi-  
7           sion of the Indian Mineral Leasing Act of 1938 (25 U.S.C.  
8           396a–396g); Indian Mineral Development Act of 1982 (25  
9           U.S.C. 2101–2108); Surface Mining Control and Rec-  
10          lamation Act of 1977 (30 U.S.C. 1201–1328); any amend-  
11          ments thereto; or any other laws not specifically addressed  
12          in this section.

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

14          (a) **IN GENERAL.**—The Secretary of the Interior shall  
15          conduct a review of the activities that have been conducted  
16          by the governments of Indian tribes under the authority  
17          of the Indian Mineral Development Act of 1982 (25  
18          U.S.C. 2101 et seq.).

19          (b) **REPORT.**—Not later than one year after the date  
20          of the enactment of this Act, the Secretary shall transmit  
21          to the Committee on Resources of the House of Represent-  
22          atives and the Committee on Indian Affairs and the Com-  
23          mittee on Energy and Natural Resources of the Senate  
24          a report containing:

25                  (1) the results of the review;

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

4           (3) an analysis of the barriers to the develop-  
5           ment of energy resources on Indian land, including  
6           federal policies and regulations, and make rec-  
7           ommendations regarding the removal of those bar-  
8           riers.

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

13          **SEC. 406. RENEWABLE ENERGY STUDY.**

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

1 (b) 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 section.

5 **SEC. 407. FEDERAL POWER MARKETING ADMINISTRA-**  
 6 **TIONS.**

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

10 **“SEC. 2608. FEDERAL POWER MARKETING ADMINISTRA-**  
 11 **TIONS.**

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

14 “(1) the Administrator of the Bonneville Power  
 15 Administration; or

16 “(2) the Administrator of the Western Area  
 17 Power Administration.

18 “(b) ASSISTANCE FOR TRANSMISSION STUDIES.—

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

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

1                   “(B) by the Indian tribe.

2                   “(2) PRIORITY FOR ASSISTANCE FOR TRANS-  
3                   MISSION STUDIES.—In providing discretionary as-  
4                   sistance to Indian tribes under paragraph (1), each  
5                   Administrator shall give priority in funding to In-  
6                   dian tribes that have limited financial capability to  
7                   conduct such studies.”.

8 **SEC. 408. FEASIBILITY STUDY OF COMBINED WIND AND HY-**  
9                   **DROPOWER DEMONSTRATION PROJECT.**

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

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

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

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

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

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

9           (5) determine seasonal capacity needs and asso-  
10          ciated transmission upgrades for integration of tribal  
11          wind generation; and

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

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

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

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

1           (3) recommendations for a demonstration  
2 project which the Western Area Power Administra-  
3 tion could carry out in partnership with an Indian  
4 tribal government or tribal government energy con-  
5 sortium to demonstrate the feasibility and potential  
6 of using wind energy produced on Indian lands to  
7 supply firming energy to the Western Area Power  
8 Administration or other Federal power marketing  
9 agency; and

10           (4) an identification of the economic and envi-  
11 ronmental benefits to be realized through such a fed-  
12 eral-tribal partnership and identification of how such  
13 a partnership could contribute to the energy security  
14 of the United States.

15       (d) CONSULTATION.—The Secretary shall consult  
16 with Indian tribes on a government-to-government basis  
17 in developing the report and recommendations provided in  
18 this section.

19       (e) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated \$500,000 to carry out  
21 this section, which shall remain available until expended.  
22 All costs incurred by the Western Area Power Administra-  
23 tion associated with performing the tasks required under  
24 this section shall be non-reimbursable.

1           **TITLE V—NUCLEAR POWER**  
2           **Subtitle A—Price-Anderson Act**  
3           **Reauthorization**

4   **SEC. 501. SHORT TITLE.**

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

7   **SEC. 502. EXTENSION OF DEPARTMENT OF ENERGY INDEMNIFICATION AUTHORITY.**

8           Section 170 d.(1)(A) of the Atomic Energy Act of  
9 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking  
10 “, until August 1, 2002,”.

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

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

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

19           “(A) may require the contractor to provide  
20 and maintain financial protection of such a type  
21 and in such amounts as the Secretary shall de-  
22 termine to be appropriate to cover public liabil-  
23 ity arising out of or in connection with the con-  
24 tractual activity, and

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

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

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

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

1 amended by striking “paragraph (3)” and inserting “para-  
2 graph (2)(B)”.

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

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

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

12 **SEC. 505. REPORTS.**

13 Section 170 p. of the Atomic Energy Act of 1954 (42  
14 U.S.C. 2210(p)) is amended by striking “August 1, 1998”  
15 and inserting “August 1, 2013”.

16 **SEC. 506. INFLATION ADJUSTMENT.**

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

19 (1) by renumbering paragraph (2) as paragraph  
20 (3); and

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

22 “(2) The Secretary shall adjust the amount of  
23 indemnification provided under an agreement of in-  
24 demnification under subsection d. not less than once  
25 during each 5-year period following July 1, 2002, in

1 accordance with the aggregate percentage change in  
2 the Consumer Price Index since—

3 “(A) such date of enactment, in the case  
4 of the first adjustment under this paragraph; or  
5 “(B) the previous adjustment under this  
6 paragraph.”.

7 **SEC. 507. CIVIL PENALTIES.**

8 (a) **REPEAL OF AUTOMATIC REMISSION.**—Section  
9 234A b.(2) of the Atomic Energy of 1954 (42 U.S.C.  
10 2282a (b)(2)) is amended by striking the last sentence.

11 (b) **LIMITATION FOR NONPROFIT INSTITUTIONS.**—  
12 Section 234A of the Atomic Energy Act of 1954 (42  
13 U.S.C. 2282a) is further amended by striking subsection  
14 d. and inserting the following:

15 “d. In the case of a contractor, subcontractor, or sup-  
16 plier of the Department of Energy that is an organization  
17 described in section 501(c)(3) of the Internal Revenue  
18 Code of 1986 and that is exempt from taxation under sec-  
19 tion 501(a) of the Code—

20 “(1) the assessment of any civil penalty under  
21 subsection a. against that entity may not be made  
22 until the entity enters into a new contract with the  
23 Department of Energy or an extension of a current  
24 contract with the Department; and

1           “(2) the total amount of civil penalties under  
2           subsection a. in a fiscal year may not exceed the  
3           total amount of fees paid by the Department of En-  
4           ergy to that entity in that fiscal year.”.

5 **SEC. 508. EFFECTIVE DATE.**

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

9                           **Subtitle B—Miscellaneous**  
10                           **Provisions**

11 **SEC. 511. URANIUM SALES.**

12           (a) URANIUM HEXAFLUORIDE DERIVED FROM RUS-  
13           SIAN HIGHLY ENRICHED URANIUM.—Section 3112(b)(2)  
14           of the USEC Privatization Act (42 U.S.C. 2297h-  
15           10(b)(2)) is amended to read as follows:

16                   “(2) The Secretary may not sell any uranium  
17                   hexafluoride transferred to the Secretary pursuant  
18                   to paragraph (1) to any end user other than the  
19                   United States for consumption in the United States  
20                   prior to March 24, 2009, and may not sell or trans-  
21                   fer more than 3,000,000 pounds of U<sub>3</sub>O<sub>8</sub> equivalent  
22                   for consumption in the United States in calendar  
23                   year 2009 or in any calendar year thereafter.”.

1 (b) INVENTORY SALES.—Section 3112(d)(1) of the  
2 USEC Privatization Act (42 U.S.C. 2297h–10(d)(1)) is  
3 amended to read as follows:

4 “(1) Except as provided in subsections (b), (c),  
5 and (e), and except for transfers or sales of any ura-  
6 nium that will be further processed at a domestic  
7 uranium mill, the Secretary may not sell natural or  
8 low-enriched uranium (including low-enriched ura-  
9 nium derived from highly enriched uranium) from  
10 the Department of Energy’s stockpile prior to May  
11 24, 2009.”.

12 **SEC. 512. REAUTHORIZATION OF THORIUM REIMBURSE-**  
13 **MENT.**

14 (a) REIMBURSEMENT OF THORIUM LICENSEES.—  
15 Section 1001(b)(2)(C) of the Energy Policy Act of 1992  
16 (42 U.S.C. 2296a) is amended by striking  
17 “\$140,000,000” and inserting “\$263,000,000”.

18 (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
19 1003(a) of the Energy Policy Act of 1992 (42 U.S.C.  
20 2296a–2) is amended by striking “\$490,000,000” and in-  
21 serting “\$613,000,000”.

22 (c) DECONTAMINATION AND DECOMMISSIONING  
23 FUND.—Section 1802(a) of the Atomic Energy Act of  
24 1954 (42 U.S.C. 2297g–1) is amended by striking  
25 “\$488,333,333” and inserting “\$508,833,333”.

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

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

4 (1) any atomic energy defense activity,

5 (2) any space-related mission, or

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

10 **DIVISION B—DOMESTIC OIL AND**  
11 **GAS PRODUCTION AND**  
12 **TRANSPORTATION**  
13 **TITLE VI—OIL AND GAS**  
14 **PRODUCTION**

15 **SEC. 601. PERMANENT AUTHORITY TO OPERATE THE STRA-**  
16 **TEGIC PETROLEUM RESERVE.**

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

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

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

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

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

8           (1) by striking section 256(h) (42 U.S.C.  
9           6276(h)) and inserting—

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

14          (2) by striking section 273(e) (42 U.S.C.  
15          6283(e); relating to the expiration of summer fill  
16          and fuel budgeting programs); and

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

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

1 **SEC. 602. FEDERAL ONSHORE LEASING PROGRAMS FOR**  
2 **OIL AND GAS.**

3 (a) **TIMELY ACTION ON LEASES AND PERMITS.**—The  
4 Secretary of the Interior shall provide for the timely leas-  
5 ing of lands containing oil or gas and timely action on  
6 applications for permits to drill under section 17 of the  
7 Mineral Leasing Act (30 U.S.C. 226). To ensure timely  
8 action on oil and gas leases and applications for permits  
9 to drill, the Secretary shall—

10 (1) ensure expeditious compliance with the re-  
11 quirements section 102(2)(C) of the National Envi-  
12 ronmental Policy Act of 1969 (42 U.S.C.  
13 4332(2)(C));

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

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

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

20 (b) **AUTHORIZATION OF APPROPRIATIONS.**—For the  
21 purpose of carrying out paragraphs (1) through (4) of  
22 subsection (a), there are authorized to be appropriated to  
23 the Secretary of the Interior \$60,000,000 for each of the  
24 fiscal years 2003 through 2006, in addition to amounts  
25 otherwise authorized to be appropriated for the purpose

1 of carrying out section 17 of the Mineral Leasing Act (30  
2 U.S.C. 226).

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

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

12 **SEC. 604. HYDRAULIC FRACTURING.**

13 Section 1421 of the Safe Drinking Water Act (42  
14 U.S.C. Sec. 300h) is amended by adding at the end the  
15 following:

16 “(e) HYDRAULIC FRACTURING FOR OIL AND GAS  
17 PRODUCTION.—

18 “(1) STUDY OF THE EFFECTS OF HYDRAULIC  
19 FRACTURING.—

20 “(A) IN GENERAL.—Not later than 24  
21 months after the date of enactment of this sub-  
22 section, the Administrator shall complete a  
23 study of the known and potential effects on un-  
24 derground drinking water sources of hydraulic  
25 fracturing, including the effects of hydraulic

1 fracturing on underground drinking water  
2 sources on a nationwide basis, and within spe-  
3 cific regions, States, or portions of States.

4 “(B) CONSULTATION.—In planning and  
5 conducting the study, the Administrator shall  
6 consult with the Secretary of the Interior, the  
7 Secretary of Energy, the Ground Water Protec-  
8 tion Council, affected States, and, as appro-  
9 priate, representatives of environmental, indus-  
10 try, academic, scientific, public health, and  
11 other relevant organizations. Such study may be  
12 accomplished in conjunction with other ongoing  
13 studies related to the effects of oil and gas pro-  
14 duction on groundwater resources.

15 “(C) STUDY ELEMENTS.—The study con-  
16 ducted under subparagraph (A) shall, at a min-  
17 imum, examine and make findings as to  
18 whether—

19 “(i) such hydraulic fracturing has, or  
20 will, endanger (as defined under subsection  
21 (d)(2)) underground drinking water  
22 sources, including those sources within spe-  
23 cific regions, States or portions of States;

24 “(ii) there are specific methods, prac-  
25 tices, or hydrogeologic circumstances in

1           which hydraulic fracturing has, or will, en-  
2           danger underground drinking water  
3           sources; and

4           “(iii) there are any precautionary ac-  
5           tions that may reduce or eliminate any  
6           such endangerment.

7           “(2) INDEPENDENT SCIENTIFIC REVIEW.—

8           “(A) IN GENERAL.— Not later than 2  
9           months after the study under paragraph (1) is  
10          completed, the Administrator shall enter into an  
11          appropriate agreement with the National Acad-  
12          emy of Sciences to have the Academy review the  
13          conclusions of the study.

14          “(B) REPORT—Not later than 9 months  
15          after entering into an appropriate agreement  
16          with the Administrator, the National Academy  
17          of Sciences shall report to the Administrator,  
18          the Committee on Energy and Commerce of the  
19          House of Representatives, and the Committee  
20          on Environment and Public Works of the Sen-  
21          ate, on the—

22          “(i) findings related to the study con-  
23          ducted by the Administrator under para-  
24          graph (1); and

1                   “(ii) recommendations, if any, for  
2                   modifying the findings of the study.

3                   “(3) REGULATORY DETERMINATION.—

4                   “(A) IN GENERAL.—Not later than 6  
5                   months after receiving the National Academy of  
6                   Sciences report under paragraph (2), the Ad-  
7                   ministrator shall determine, after informal pub-  
8                   lic hearings and public notice and opportunity  
9                   for comment, and based on information devel-  
10                  oped or accumulated in connection with the  
11                  study required under paragraph (1) and the  
12                  National Academy of Sciences report under  
13                  paragraph (2), either:

14                  “(i) that regulation of hydraulic frac-  
15                  turing under this part is necessary to en-  
16                  sure that underground sources of drinking  
17                  water will not be endangered on a nation-  
18                  wide basis, or within a specific region,  
19                  State or portions of a State; or

20                  “(ii) that regulation described under  
21                  clause (i) is unnecessary.

22                  “(B) PUBLICATION OF DETERMINATION.—  
23                  The Administrator shall publish the determina-  
24                  tion in the Federal Register, accompanied by an  
25                  explanation and the reasons for it.

1           “(4) PROMULGATION OF REGULATIONS.—

2                   “(A) REGULATION NECESSARY.—If the  
3 Administrator determines under paragraph (3)  
4 that regulation of hydraulic fracturing under  
5 this part is necessary to ensure that hydraulic  
6 fracturing does not endanger underground  
7 drinking water sources on a nationwide basis,  
8 or within a specific region, State or portions of  
9 a State, the Administrator shall, within 6  
10 months after the issuance of that determina-  
11 tion, and after public notice and opportunity for  
12 comment, promulgate regulations under section  
13 1421 (42 U.S.C. 300h) to ensure that hydraulic  
14 fracturing will not endanger such underground  
15 sources of drinking water.

16                   “(B) REGULATION UNNECESSARY.—The  
17 Administrator shall not promulgate regulations  
18 for hydraulic fracturing under this part unless  
19 the Administrator determines under paragraph  
20 (3) that such regulations are necessary.

21                   “(C) EXISTING REGULATIONS.—A deter-  
22 mination by the Administrator under paragraph  
23 (3) that regulation is unnecessary will relieve  
24 States from any further obligation to regulate

1 hydraulic fracturing as an underground injec-  
2 tion under this part.

3 “(5) DEFINITION OF HYDRAULIC FRAC-  
4 TURING.—For purposes of this subsection, the term  
5 ‘hydraulic fracturing’ means the process of creating  
6 a fracture in a reservoir rock, and injecting fluids  
7 and propping agents, for the purposes of reservoir  
8 stimulation related to oil and gas production activi-  
9 ties.

10 “(6) SAVINGS.—Nothing in this subsection shall  
11 in any way limit the authorities of the Administrator  
12 under section 1431 (42 U.S.C. 300i).”.

13 **SEC. 605. ORPHANED WELLS ON FEDERAL LAND.**

14 (a) ESTABLISHMENT.—The Secretary of the Interior,  
15 in cooperation with the Secretary of Agriculture, shall es-  
16 tablish a program to ensure within three years after the  
17 date of enactment remediation, reclamation, and closure  
18 of orphaned oil and gas wells located on lands adminis-  
19 tered by the land management agencies within the Depart-  
20 ment of the Interior and the U.S. Forest Service. The pro-  
21 gram shall include a means of ranking critical sites for  
22 priority in remediation based on potential environmental  
23 harm, other land use priorities, and public health and safe-  
24 ty. The program shall provide that responsible parties be  
25 identified wherever possible and that the costs of remedi-

1 ation be recovered. In carrying out the program, the Sec-  
2 retary of the Interior shall work cooperatively with the  
3 Secretary of Agriculture and the states within which the  
4 federal lands are located, and shall consult with the Sec-  
5 retary of Energy, and the Interstate Oil and Gas Compact  
6 Commission.

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

15 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
16 are authorized to be appropriated to the Secretary of the  
17 Interior \$5,000,000 for each of fiscal years 2003 through  
18 2005 to carry out the activities provided for in this sec-  
19 tion.

20 **SEC. 606. ORPHANED AND ABANDONED OIL AND GAS WELL**  
21 **PROGRAM.**

22 (a) ESTABLISHMENT.—The Secretary of Energy  
23 shall establish a program to provide technical assistance  
24 to the various oil and gas producing states to facilitate  
25 state efforts over a ten-year period to ensure a practical

1 and economical remedy for environmental problems caused  
2 by orphaned and abandoned exploration or production well  
3 sites on state and private lands. The Secretary shall work  
4 with the states, through the Interstate Oil and Gas Com-  
5 pact Commission, to assist the states in quantifying and  
6 mitigating environmental risks of onshore abandoned and  
7 orphaned wells on state and private lands.

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

10 (1) mechanisms to facilitate identification of re-  
11 sponsible parties wherever possible;

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

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

17 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to the Secretary of En-  
19 ergy for the activities under this section \$5,000,000 for  
20 each of fiscal years 2003 through 2005 to carry out the  
21 provisions of this section.

22 **SEC. 607. OFFSHORE DEVELOPMENT.**

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

1       “(k) SUSPENSION OF OPERATIONS FOR SUBSALT  
2 EXPLORATION.—Notwithstanding any other provision of  
3 law or regulation, the Secretary may grant a request for  
4 a suspension of operations under any lease to allow the  
5 lessee to reprocess or reinterpret geologic or geophysical  
6 data beneath allocthonous salt sheets, when in the Sec-  
7 retary’s judgment such suspension is necessary to prevent  
8 waste caused by the drilling of unnecessary wells, and to  
9 maximize ultimate recovery of hydrocarbon resources  
10 under the lease. Such suspension shall be limited to the  
11 minimum period of time the Secretary determines is nec-  
12 essary to achieve the objectives of this subsection.”.

13 **SEC. 608. COALBED METHANE STUDY.**

14       (a) STUDY.—The Secretary of the Interior, in con-  
15 sultation with the Administrator of the Environmental  
16 Protection Agency, and the Secretaries of Energy and Ag-  
17 riculture, shall conduct a study on the effects of coalbed  
18 methane production on surface and water resources.

19       (b) DATA ANALYSIS.—The study shall analyze avail-  
20 able hydrogeologic and water quality data, along with  
21 other pertinent environmental or other information to  
22 determine—

23               (1) adverse effects associated with surface or  
24               subsurface disposal of waters produced during ex-  
25               traction of coalbed methane;



1 development of domestic oil and gas resources and on reve-  
2 nues to Federal, State, local and tribal governments.

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

5 (1) analyze the impact of fiscal policies on oil  
6 and natural gas exploration, development drilling,  
7 and production under different price scenarios, in-  
8 cluding the impact of the individual and corporate  
9 Alternative Minimum Tax, state and local produc-  
10 tion taxes and fixed royalty rates during low price  
11 periods;

12 (2) assess the effect of existing federal and  
13 state fiscal policies on investment under different ge-  
14 ological and developmental circumstances, including  
15 but not limited to deepwater environments, subsalt  
16 formations, deep and deviated wells, coalbed meth-  
17 ane and other unconventional oil and gas forma-  
18 tions;

19 (3) assess the extent to which federal and state  
20 fiscal policies negatively impact the ultimate recovery  
21 of resources from existing fields and smaller accu-  
22 mulations in offshore waters, especially in water  
23 depths less than 800 meters, of the Gulf of Mexico;

24 (4) compare existing federal and state policies  
25 with tax and royalty regimes in other countries with

1 particular emphasis on similar geological, develop-  
2 mental and infrastructure conditions; and

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

8 (c) POLICY RECOMMENDATIONS.—Based upon the  
9 findings of the evaluation under subsection (a), a report  
10 describing the findings and recommendations for policy  
11 changes shall be provided to the President, the Congress,  
12 the Governors of the member states of the Interstate Oil  
13 and Gas Compact Commission, and Indian tribes having  
14 an oil and gas lease approved by the Secretary of the Inte-  
15 rior. The recommendations should ensure that the public  
16 interest in receiving the economic benefits of tax and roy-  
17 alty revenues is balanced with the broader national secu-  
18 rity and economic interests in maximizing recovery of do-  
19 mestic resources. The report should include recommenda-  
20 tions regarding actions to—

21 (1) ensure stable development drilling during  
22 periods of low oil and/or natural gas prices to main-  
23 tain reserve replacement and deliverability;

24 (2) minimize the negative impact of a volatile  
25 investment climate on the oil and gas service indus-

1 try and domestic oil and gas exploration and produc-  
2 tion;

3 (3) ensure a consistent level of domestic activity  
4 to encourage the education and retention of a tech-  
5 nical workforce; and

6 (4) maintain production capability during peri-  
7 ods of low oil and/or natural gas prices.

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

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

20 **SEC. 610. STRATEGIC PETROLEUM RESERVE.**

21 (a) FULL CAPACITY.—The President shall—

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

1           (2) acquire petroleum for the Strategic Petro-  
2           leum Reserve by the most practicable and cost-effec-  
3           tive means, including the acquisition of crude oil the  
4           United States is entitled to receive in kind as royalti-  
5           ties from production on Federal lands; and

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

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

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

13           (2) determine whether the capacity of the Stra-  
14          tegic Petroleum Reserve on the date of enactment of  
15          this section is adequate in light of the increasing  
16          consumption of petroleum and the reliance on im-  
17          ported petroleum.

## 18           **TITLE VII—NATURAL GAS**

### 19                   **PIPELINES**

#### 20                   **Subtitle A—Alaska Natural Gas**

#### 21                           **Pipeline**

22          **SEC. 701. SHORT TITLE.**

23           This subtitle may be cited as the “Alaska Natural  
24          Gas Pipeline Act of 2002”.

1 **SEC. 702. PURPOSES.**

2 The purposes of this subtitle are:

3 (1) to expedite the approval, construction, and  
4 initial operation of one or more transportation sys-  
5 tems for the delivery of Alaska natural gas to the  
6 contiguous United States;

7 (2) to ensure access to such transportation sys-  
8 tems on an equal and nondiscriminatory basis and  
9 to promote competition in the exploration, develop-  
10 ment and production of Alaska Natural Gas;

11 (3) to provide federal financial assistance to  
12 any transportation system for the transport of Alas-  
13 ka natural gas to the contiguous United States, for  
14 which an application for a certificate of public con-  
15 venience and necessity is filed with the Commission  
16 not later than six months after the date of enact-  
17 ment of this title.

18 **SEC. 703. ISSUANCE OF CERTIFICATE OF PUBLIC CONVEN-**  
19 **IENCE AND NECESSITY.**

20 (a) **AUTHORITY OF THE COMMISSION.**—Notwith-  
21 standing the provisions of the Alaska Natural Gas Trans-  
22 portation Act of 1976 (15 U.S.C. 719–719o), the Commis-  
23 sion shall consider and act on an application for the  
24 issuance of a certificate of public convenience and neces-  
25 sity authorizing the construction and operation of an Alas-

1 ka natural gas transportation project under section 7(c)  
2 of the Natural Gas Act (15 U.S.C. 717f(c)).

3 (b) ISSUANCE OF CERTIFICATE.—

4 (1) PROJECTS IN ALASKA.—The Commission  
5 shall issue a certificate of public convenience and ne-  
6 cessity authorizing the construction and operation of  
7 an Alaska natural gas transportation project within  
8 the State of Alaska if the applicant has—

9 (A) entered into a contract to transport  
10 Alaska natural gas through the proposed Alas-  
11 ka natural gas transportation project for use in  
12 the contiguous United States; and

13 (B) satisfied the requirements of section  
14 7(e) of the Natural Gas Act (15 U.S.C.  
15 717f(e)) with respect to—

16 (i) rates, charges, and terms and con-  
17 ditions of such transportation services; and

18 (ii) all environmental laws applicable  
19 to the proposed facilities.

20 (2) PROJECTS IN THE CONTIGUOUS UNITED  
21 STATES.—The Commission may issue a certificate of  
22 public convenience and necessity authorizing the  
23 construction and operation of an Alaska natural gas  
24 transportation project in the contiguous United  
25 States if the applicant satisfies the requirements of

1 section 7(e) of the Natural Gas Act (15 U.S.C.  
2 717f(e)).

3 (c) COMPETITIVE EFFECTS.—In carrying out its re-  
4 sponsibilities under this section, the Commission shall take  
5 into account the effect on competition in the exploration,  
6 development and production of natural gas in Alaska, and  
7 shall ensure that any Alaska natural gas transportation  
8 project provides open and nondiscriminatory access to all  
9 shippers.

10 (d) EXPEDITED APPROVAL PROCESS.—The Commis-  
11 sion shall issue a final order granting or denying any ap-  
12 plication for a certificate of public and convenience and  
13 necessity under section 7(c) of the Natural Gas Act (15  
14 U.S.C. 717f(c)) and this section not more than 60 days  
15 after the issuance of the final environmental impact state-  
16 ment for that project pursuant to section 704.

17 (e) REVIEWS AND ACTIONS OF OTHER FEDERAL  
18 AGENCIES.—All reviews conducted and actions taken by  
19 any federal officer or agency relating to an Alaska natural  
20 gas transportation project shall be expedited, in a manner  
21 consistent with completion of the necessary reviews and  
22 approvals by the deadlines set forth in this subtitle.

23 **SEC. 704. ENVIRONMENTAL REVIEWS.**

24 (a) COMPLIANCE WITH NEPA.—The issuance of a  
25 certificate of public convenience and necessity authorizing

1 the construction and operation of any Alaska natural gas  
2 transportation project shall be treated as a major federal  
3 action significantly affecting the quality of the human en-  
4 vironment within the meaning of section 102(2)(C) of the  
5 National Environmental Policy Act of 1969 (42 U.S.C.  
6 4332(2)(C)).

7 (b) DESIGNATION OF LEAD AGENCY.—The Commis-  
8 sion shall be the lead agency for purposes of complying  
9 with the National Environmental Policy Act of 1969, and  
10 shall be responsible for preparing the statement required  
11 by section 102(2)(c) of that Act (42 U.S.C. 4332(2)(c))  
12 with respect to the project. The Commission shall prepare  
13 a single environmental statement under this section, which  
14 shall consolidate the environmental reviews of all Federal  
15 agencies considering any aspect of the project.

16 (c) OTHER AGENCIES.—All Federal agencies consid-  
17 ering aspects of the construction and operation of the  
18 Alaska natural gas transportation project shall cooperate  
19 with the Commission, and shall comply with deadlines es-  
20 tablished by the Commission in the preparation of the  
21 statement under this section. The statement prepared  
22 under this section shall be used by all such agencies to  
23 satisfy their responsibilities under section 102(2)(C) of the  
24 National Environmental Policy Act of 1969 (42 U.S.C.  
25 4332(2)(C)) with respect to such project.

1 (d) EXPEDITED PROCESS.—The Commission shall  
2 issue a draft statement under this section not later than  
3 12 months after the Commission determines the applica-  
4 tion to be complete and shall issue the final statement not  
5 later than 6 months after the Commission issues the draft  
6 statement, unless the Commission for good cause finds  
7 that additional time is needed.

8 **SEC. 705. FEDERAL COORDINATOR.**

9 (a) ESTABLISHMENT.—There is established as an  
10 independent establishment in the executive branch, the Of-  
11 fice of the Federal Coordinator for Alaska Natural Gas  
12 Transportation Projects.

13 (b) THE FEDERAL COORDINATOR.—The Office shall  
14 be headed by a Federal Coordinator for Alaska Natural  
15 Gas Transportation Projects (the “Federal Coordinator”),  
16 who shall—

17 (1) be appointed by the President, by and with  
18 the advice of the Senate,

19 (2) hold office at the pleasure of the President,  
20 and

21 (3) be compensated at the rate prescribed for  
22 level III of the Executive Schedule (5 U.S.C. 5314).

23 (c) DUTIES.—The Federal Coordinator shall be re-  
24 sponsible for—

1           (1) coordinating the expeditious discharge of all  
2           activities by federal agencies with respect to an Alas-  
3           ka natural gas transportation project; and

4           (2) ensuring the compliance of Federal agencies  
5           with the provisions of this subtitle.

6 **SEC. 706. JUDICIAL REVIEW.**

7           (a) **EXCLUSIVE JURISDICTION.**—The United States  
8           Court of Appeals for the District of Columbia Circuit shall  
9           have exclusive jurisdiction to determine—

10           (1) the validity of any final order or action (in-  
11           cluding a failure to act) of the Commission under  
12           this subtitle;

13           (2) the constitutionality of any provision of this  
14           subtitle, or any decision made or action taken there-  
15           under; or

16           (3) the adequacy of any environmental impact  
17           statement prepared under the National Environ-  
18           mental Policy Act of 1969 with respect to any action  
19           under this subtitle.

20           (b) **DEADLINE FOR FILING CLAIM.**—Claims arising  
21           under this subtitle may be brought not later than 60 days  
22           after the date of the decision or action giving rise to the  
23           claim.

1 **SEC. 707. LOAN GUARANTEE.**

2 (a) **AUTHORITY.**—The Secretary of Energy may  
3 guarantee not more than 80 percent of the principal of  
4 any loan made to the holder of a certificate of public con-  
5 venience and necessity issued under section 701(b)(1) of  
6 this Act or section 9 of the Alaska Natural Gas Transpor-  
7 tation Act of 1976 (15 U.S.C. 719g) for the purpose of  
8 constructing a natural gas pipeline system for trans-  
9 porting natural gas from the North Slope of Alaska to  
10 the border between Alaska and Canada.

11 (b) **CONDITIONS.**—

12 (1) The Secretary of Energy may not guarantee  
13 a loan under this section unless the guarantee has  
14 filed an application for a certificate of public conven-  
15 ience and necessity under section 701(b)(1) of this  
16 Act or for an amended certificate under section 9 of  
17 the Alaska Natural Gas Transportation Act of 1976  
18 (15 U.S.C. 719g) with the Federal Energy Regu-  
19 latory Commission not later than six months after  
20 the date of enactment of this title.

21 (2) A loan guaranteed under this section shall  
22 be made by a financial institution subject to the ex-  
23 amination of the Secretary.

24 (3) Loan requirements, including term, max-  
25 imum size, collateral requirements and other fea-  
26 tures shall be determined by the Secretary.

1 (c) LIMITATION ON AMOUNT.—Commitments to  
2 guarantee loans may be made by the Secretary of Energy  
3 only to the extent that the total loan principal, any part  
4 of which is guaranteed, will not exceed \$10,000,000,000.

5 (d) REGULATIONS.—The Secretary of Energy may  
6 issue regulations to carry out the provisions of this sec-  
7 tion.

8 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
9 are authorized to be appropriated to the Secretary such  
10 sums as may be necessary to cover the cost of loan guaran-  
11 tees, as defined by section 502(5) of the Federal Credit  
12 Reform Act of 1990 (2 U.S.C. 661a(5)).

13 **SEC. 708. DEFINITIONS.**

14 For purposes of this subtitle:

15 (1) the term “Alaska natural gas” means nat-  
16 ural gas derived from the area of the State of Alas-  
17 ka generally known as the North Slope of Alaska,  
18 including the Continental Shelf thereof;

19 (2) the term “Alaska natural gas transportation  
20 project” means—

21 (A) any natural gas pipeline system that  
22 carries Alaska natural gas—

23 (i) from the North Slope of Alaska to  
24 the border between Alaska and Canada, or

1 (ii) from the border between Canada  
2 and the contiguous United States to a nat-  
3 ural gas pipeline system in the contiguous  
4 United States in operation on the date of  
5 enactment of this subtitle, and

6 (B) facilities subjected to the jurisdiction  
7 of the Commission that are related to such  
8 pipeline systems;

9 (3) the term “Commission” means the Federal  
10 Energy Regulatory Commission.

11 (4) the term “natural gas company” means a  
12 person engaged in the transportation of natural gas  
13 in interstate commerce or the sale in interstate com-  
14 merce of such gas for resale.

15 **SEC. 709. SAVINGS CLAUSE.**

16 Nothing in this title affects the decisions made pursu-  
17 ant to the Alaska Natural Gas Transportation Act (15  
18 U.S.C. 719–719o, as amended) regarding the selection,  
19 designation and description of the Alaska Natural Gas  
20 Transportation System, or the obligations and authorities  
21 of Federal officers and agencies under that Act, to grant  
22 or issue all certificate, rights-of-way, leases, permits and  
23 other authorizations necessary for the construction and  
24 authorization of the Alaska Natural Gas Transportation  
25 System, to expedite and give priority to any applications

1 or requests for, and to modify any terms and conditions  
 2 of such certificates, rights-of-way, leases, permits and  
 3 other authorizations.

4 **SEC. 710. SENSE OF THE SENATE.**

5 It is the sense of the Senate that an Alaska natural  
 6 gas transportation project will provide significant eco-  
 7 nomic benefits to the United States and Canada. In order  
 8 to maximize those benefits, the Senate urges the sponsors  
 9 of the pipeline project to make every effort to use steel  
 10 that is manufactured or produced in North America and  
 11 to negotiate a project labor agreement to expedite con-  
 12 struction of the pipeline.

13 **Subtitle B—Operating Pipelines**

14 **SEC. 711. APPLICATION OF HISTORIC PRESERVATION ACT**  
 15 **TO OPERATING PIPELINES.**

16 Section 7 of the Natural Gas Act (15 U.S.C. 717(f))  
 17 is amended by adding at the end the following:

18 “(i)(1) Notwithstanding the National Historic Pres-  
 19 ervation Act (16 U.S.C. 470 et seq.), a transportation fa-  
 20 cility shall not be eligible for inclusion on the National  
 21 Register of Historic Places unless—

22 “(A) the Commission has permitted the aban-  
 23 donment of the transportation facility pursuant to  
 24 subsection (b), or

1           “(B) the owner of the facility has given written  
2           consent to such eligibility.

3           “(2) Any transportation facility considered eligible  
4           for inclusion on the National Register of Historic Places  
5           prior to the date of enactment of this subsection shall no  
6           longer be eligible unless the owner of the facility gives  
7           written consent to such eligibility.”.

8   **SEC. 712. ENVIRONMENTAL REVIEW AND PERMITTING OF**  
9                           **NATURAL GAS PIPELINE PROJECTS.**

10          (a) INTERAGENCY REVIEW.—The Chairman of the  
11          Council on Environmental Quality, in coordination with  
12          the Federal Energy Regulatory Commission, shall estab-  
13          lish an interagency task force to develop an interagency  
14          memorandum of understanding to expedite the environ-  
15          mental review and permitting of natural gas pipeline  
16          projects.

17          (b) MEMBERSHIP OF INTERAGENCY TASK FORCE.—  
18          The task force shall consist of—

19                 (1) the Chairman of the Council on Environ-  
20                 mental Quality, who shall serve as the Chairman of  
21                 the interagency task force,

22                 (2) the Chairman of the Federal Energy Regu-  
23                 latory Commission,

24                 (3) the Director of the Bureau of Land Man-  
25                 agement,

1           (4) the Director of the U.S. Fish and Wildlife  
2       Service,

3           (5) the Commanding General, U.S. Army Corps  
4       of Engineers,

5           (6) the Chief of the Forest Service,

6           (7) the Administrator of the Environmental  
7       Protection Agency,

8           (8) the Chairman of the Advisory Council on  
9       Historic Preservation, and

10          (9) the heads of such other agencies as the  
11       Chairman of the Council on Environmental Quality  
12       and the Chairman of the Federal Energy Regulatory  
13       Commission deem appropriate.

14       (c) MEMORANDUM OF UNDERSTANDING.—The agen-  
15       cies represented by the members of the interagency task  
16       force shall enter into the memorandum of understanding  
17       not later than one year after the date of the enactment  
18       of this section.

1 **DIVISION C—DIVERSIFYING EN-**  
2 **ERGY DEMAND AND IMPROV-**  
3 **ING EFFICIENCY**

4 **TITLE VIII—FUELS AND**  
5 **VEHICLES**

6 **Subtitle A—Increased Vehicle Fuel**  
7 **Efficiency**

8 **SEC. 801. INCREASED VEHICLE FUEL EFFICIENCY.**

9 [Reserved.]

10 **SEC. 802. FUEL ECONOMY OF THE FEDERAL FLEET OF**  
11 **AUTOMOBILES.**

12 Section 32917 of title 49, United States Code, is  
13 amended to read as follows:

14 **“§32917. Standards for executive agency automobiles**

15 “(a) **BASELINE AVERAGE FUEL ECONOMY.**—The  
16 head of each executive agency shall determine, for all auto-  
17 mobiles in the agency’s fleet of automobiles that were  
18 leased or bought as a new vehicle in fiscal year 1999, the  
19 average fuel economy for such automobiles. For the pur-  
20 poses of this section, the average fuel economy so deter-  
21 mined shall be the baseline average fuel economy for the  
22 agency’s fleet of automobiles.

23 “(b) **INCREASE OF AVERAGE FUEL ECONOMY.**—The  
24 head of an executive agency shall manage the procurement  
25 of automobiles for that agency in such a manner that—

1           “(1) not later than September 30, 2003, the av-  
2           erage fuel economy of the new automobiles in the  
3           agency’s fleet of automobiles is not less than 1 mile  
4           per gallon higher than the baseline average fuel  
5           economy determined under subsection (a) for that  
6           fleet; and

7           “(2) not later than September 30, 2005, the av-  
8           erage fuel economy of the new automobiles in the  
9           agency’s fleet of automobiles is not less than 3 miles  
10          per gallon higher than the baseline average fuel  
11          economy determined under subsection (a) for that  
12          fleet.

13          “(c) CALCULATION OF AVERAGE FUEL ECONOMY.—  
14          Average fuel economy shall be calculated for the purposes  
15          of this section in accordance with guidance which the Sec-  
16          retary of Transportation shall prescribe for the implemen-  
17          tation of this section.

18          “(d) DEFINITIONS.—In this section:

19                 “(1) The term ‘automobile’ does not include  
20                 any vehicle designed for combat-related missions,  
21                 law enforcement work, or emergency rescue work.

22                 “(2) The term ‘executive agency’ has the mean-  
23                 ing given that term in section 105 of title 5.

24                 “(3) The term ‘new automobile’, with respect to  
25                 the fleet of automobiles of an executive agency,

1 means an automobile that is leased for at least 60  
2 consecutive days or bought, by or for the agency,  
3 after September 30, 1999.”.

4 **SEC. 803. ASSISTANCE FOR STATE PROGRAMS TO RETIRE**  
5 **FUEL-INEFFICIENT MOTOR VEHICLES.**

6 (a) ESTABLISHMENT.—The Secretary shall establish  
7 a program, to be known as the “National Motor Vehicle  
8 Efficiency Improvement Program,” under which the Sec-  
9 retary shall provide grants to States to operate programs  
10 to offer owners of passenger automobiles and light-duty  
11 trucks manufactured in model years more than 15 years  
12 prior to the fiscal year in which appropriations are made  
13 under subsection (d) to provide financial incentives to  
14 scrap such automobiles and to replace them with auto-  
15 mobiles with higher fuel efficiency.

16 (b) STATE PLAN.—Not later than 180 days after the  
17 date of enactment of an appropriations act containing  
18 funds authorized under subsection (d), to be eligible to re-  
19 ceive funds under the program, the Governor of a State  
20 shall submit to the Secretary a plan to carry out a pro-  
21 gram under this subtitle in that State.

22 (c) ELIGIBILITY CRITERIA.—The Secretary shall ap-  
23 prove a State plan and provide the funds under subsection  
24 (d), if the State plan—

1           (1) requires that all passenger automobiles and  
2 light-duty trucks turned in be scrapped;

3           (2) requires that all passenger automobiles and  
4 light-duty trucks turned in be currently registered in  
5 the State in order to be eligible;

6           (3) requires that all passenger automobiles and  
7 light-duty trucks turned in be operational at the  
8 time that they are turned in;

9           (4) restricts automobile owners (except not-for-  
10 profit organizations) from turning in more than one  
11 passenger automobile and one light-duty truck in a  
12 12-month period;

13           (5) provides an appropriate payment to the per-  
14 son recycling the scrapped passenger automobile or  
15 light-duty truck for each turned-in passenger auto-  
16 mobile or light-duty truck;

17           (6) provides a minimum payment to the auto-  
18 mobile owner for each passenger automobile and  
19 light-duty truck turned in; and

20           (7) provides, in addition to the payment under  
21 paragraph (6), an additional credit that may be re-  
22 deemed by the owner of the turned-in passenger  
23 automobile or light-duty truck at the time of pur-  
24 chase of new fuel-efficient automobile.

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                   **Subtitle B—Alternative and**  
2                   **Renewable Fuels**

3   **SEC. 811. INCREASED USE OF ALTERNATIVE FUELS BY FED-**  
4                   **ERAL FLEETS.**

5           (a) REQUIREMENT TO USE ALTERNATIVE FUELS.—

6   Section 400AA(a)(3)(E) of the Energy Policy and Con-  
7   servation Act (42 U.S.C. 6374(a)(3)(E)) is amended to  
8   read as follows:

9                   “(E) Dual fueled vehicles acquired pursu-  
10                   ant to this section shall be operated on alter-  
11                   native fuels. If the Secretary determines that all  
12                   dual fueled vehicles acquired pursuant to this  
13                   section cannot operate on alternative fuels at all  
14                   times, he may waive the requirement in part,  
15                   but only to the extent that:

16                           “(i) not later than September 30,  
17                           2003, not less than 50 percent of the total  
18                           annual volume of fuel used in such dual  
19                           fueled vehicles shall be from alternative  
20                           fuels; and

21                           “(ii) not later than September 30,  
22                           2005, not less than 75 percent of the total  
23                           annual volume of fuel used in such dual  
24                           fueled vehicles shall be from alternative  
25                           fuels.”.

1 (b) DEFINITION OF “DEDICATED VEHICLE”.—Sec-  
2 tion 400AA(g)(4)(B) of the Energy Policy and Conserva-  
3 tion Act (42 U.S.C. 6374(g)(4)(B)) is amended by insert-  
4 ing after “solely on alternative fuel” the following: “, in-  
5 cluding a three-wheeled enclosed electric vehicle having a  
6 vehicle identification number”.

7 **SEC. 812. EXCEPTION TO HOV PASSENGER REQUIREMENTS**  
8 **FOR ALTERNATIVE FUEL VEHICLES.**

9 Section 102(a)(1) of title 23, United States Code, is  
10 amended by inserting after “required” the following: “(un-  
11 less, in the discretion of the State transportation depart-  
12 ment, the vehicle is being operated on, or is being fueled  
13 by, an alternative fuel (as defined in section 301(2) of the  
14 Energy Policy Act of 1992 (42 U.S.C. 13211(2)))”.

15 **SEC. 813. DATA COLLECTION.**

16 Section 205 of the Department of Energy Organiza-  
17 tion Act (42 U.S.C. 7135) is amended by adding at the  
18 end the following:

19 “(m) In order to improve the ability to evaluate the  
20 effectiveness of the Nation’s renewable fuels mandate, the  
21 Administrator shall conduct and publish the results of a  
22 survey of renewable fuels consumption in the motor vehicle  
23 fuels market in the United States monthly, and in a man-  
24 ner designed to protect the confidentiality of individual re-  
25 sponses. In conducting the survey, the Administrator shall

1 collect information both on a national basis and a regional  
2 basis, including—

- 3 (1) the quantity of renewable fuels produced;
- 4 (2) the cost of production;
- 5 (3) the cost of blending and marketing;
- 6 (4) the quantity of renewable fuels consumed;
- 7 (5) the quantity of renewable fuels imported;
- 8 and
- 9 (6) market price data.

10 **SEC. 814. GREEN SCHOOL BUS PILOT PROGRAM.**

11 (a) ESTABLISHMENT.—The Secretary of Energy and  
12 the Secretary of Transportation shall jointly establish a  
13 pilot program for awarding grants on a competitive basis  
14 to eligible entities for the demonstration and commercial  
15 application of alternative fuel school buses and ultra-low  
16 sulfur diesel school buses.

17 (b) REQUIREMENTS.—Not later than 3 months after  
18 the date of the enactment of this Act, the Secretary shall  
19 establish and publish in the Federal register grant require-  
20 ments on eligibility for assistance, and on implementation  
21 of the program established under subsection (a), including  
22 certification requirements to ensure compliance with this  
23 subtitle.

1 (c) SOLICITATION.—Not later than 6 months after  
2 the date of the enactment of this Act, the Secretary shall  
3 solicit proposals for grants under this section.

4 (d) ELIGIBLE RECIPIENTS.—A grant shall be award-  
5 ed under this section only—

6 (1) to a local governmental entity responsible  
7 for providing school bus service for one or more pub-  
8 lic school systems; or

9 (2) jointly to an entity described in paragraph  
10 (1) and a contracting entity that provides school bus  
11 service to the public school system or systems.

12 (e) TYPES OF GRANTS.—

13 (1) IN GENERAL.—Grants under this section  
14 shall be for the demonstration and commercial appli-  
15 cation of technologies to facilitate the use of alter-  
16 native fuel school buses and ultra-low sulfur diesel  
17 school buses instead of buses manufactured before  
18 model year 1977 and diesel-powered buses manufac-  
19 tured before model year 1991.

20 (2) NO ECONOMIC BENEFIT.—Other than the  
21 receipt of the grant, a recipient of a grant under this  
22 section may not receive any economic benefit in con-  
23 nection with the receipt of the grant.

24 (3) PRIORITY OF GRANT APPLICATIONS.—The  
25 Secretary shall give priority to awarding grants to

1 applicants who can demonstrate the use of alter-  
2 native fuel buses and ultra-low sulfur diesel school  
3 buses instead of buses manufactured before model  
4 year 1977.

5 (f) CONDITIONS OF GRANT.—A grant provided under  
6 this section shall include the following conditions:

7 (1) All buses acquired with funds provided  
8 under the grant shall be operated as part of the  
9 school bus fleet for which the grant was made for a  
10 minimum of 5 years.

11 (2) Funds provided under the grant may only  
12 be used—

13 (A) to pay the cost, except as provided in  
14 paragraph (3), of new alternative fuel school  
15 buses or ultra-low sulfur diesel school buses, in-  
16 cluding State taxes and contract fees; and

17 (B) to provide—

18 (i) up to 10 percent of the price of the  
19 alternative fuel buses acquired, for nec-  
20 essary alternative fuel infrastructure if the  
21 infrastructure will only be available to the  
22 grant recipient; and

23 (ii) up to 15 percent of the price of  
24 the alternative fuel buses acquired, for nec-  
25 essary alternative fuel infrastructure if the

1 infrastructure will be available to the grant  
2 recipient and to other bus fleets.

3 (3) The grant recipient shall be required to pro-  
4 vide at least the lesser of 15 percent of the total cost  
5 of each bus received or \$15,000 per bus.

6 (4) In the case of a grant recipient receiving a  
7 grant to demonstrate ultra-low sulfur diesel school  
8 buses, the grant recipient shall be required to pro-  
9 vide documentation to the satisfaction of the Sec-  
10 retary that diesel fuel containing sulfur at not more  
11 than 15 parts per million is available for carrying  
12 out the purposes of the grant, and a commitment by  
13 the applicant to use such fuel in carrying out the  
14 purposes of the grant.

15 (g) BUSES.—Funding under a grant made under this  
16 section may be used to demonstrate the use only of new  
17 alternative fuel school buses or ultra-low sulfur diesel  
18 school buses—

19 (1) with a gross vehicle weight of greater than  
20 14,000 pounds;

21 (2) that are powered by a heavy duty engine;

22 (3) that, in the case of alternative fuel school  
23 buses, emit not more than—

24 (A) for buses manufactured in model year  
25 2002, 2.5 grams per brake horsepower-hour of

1 nonmethane hydrocarbons and oxides of nitro-  
2 gen and .01 grams per brake horsepower-hour  
3 of particulate matter; and

4 (B) for buses manufactured in model years  
5 2003 through 2006, 1.8 grams per brake horse-  
6 power-hour of nonmethane hydrocarbons and  
7 oxides of nitrogen and .01 grams per brake  
8 horsepower-hour of particulate matter; and

9 (4) that, in the case of ultra-low sulfur diesel  
10 school buses, emit not more than—

11 (A) for buses manufactured in model year  
12 2002 or 2003, 3.0 grams per brake horsepower-  
13 hour of nonmethane hydrocarbons and oxides of  
14 nitrogen and .01 grams per brake horsepower-  
15 hour of particulate matter; and

16 (B) for buses manufactured in model years  
17 2004 through 2006, 2.5 grams per brake horse-  
18 power-hour of nonmethane hydrocarbons and  
19 oxides of nitrogen and .01 grams per brake  
20 horsepower-hour of particulate matter, except  
21 that under no circumstances shall buses be ac-  
22 quired under this section that emit nonmethane  
23 hydrocarbons, oxides of nitrogen, or particulate  
24 matter at a rate greater than the best per-  
25 forming technology of ultra-low sulfur diesel

1 school buses commercially available at the time  
2 the grant is made.

3 (h) DEPLOYMENT AND DISTRIBUTION.—The Sec-  
4 retary shall seek to the maximum extent practicable to  
5 achieve nationwide deployment of alternative fuel school  
6 buses through the program under this section, and shall  
7 ensure a broad geographic distribution of grant awards,  
8 with a goal of no State receiving more than 10 percent  
9 of the grant funding made available under this section for  
10 a fiscal year.

11 (i) LIMIT ON FUNDING.—The Secretary shall provide  
12 not less than 20 percent and not more than 25 percent  
13 of the grant funding made available under this section for  
14 any fiscal year for the acquisition of ultra-low sulfur diesel  
15 school buses.

16 (j) DEFINITIONS.—For purposes of this section—

17 (1) the term “alternative fuel school bus”  
18 means a bus powered substantially by electricity (in-  
19 cluding electricity supplied by a fuel cell), or by liq-  
20 uefied natural gas, compressed natural gas, liquefied  
21 petroleum gas, hydrogen, propane, or methanol or  
22 ethanol at no less than 85 percent by volume; and

23 (2) the term “ultra-low sulfur diesel school  
24 bus” means a school bus powered by diesel fuel

1       which contains sulfur at not more than 15 parts per  
2       million.

3 **SEC. 815. FUEL CELL BUS DEVELOPMENT AND DEM-**  
4 **ONSTRATION PROGRAM.**

5       (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
6 shall establish a program for entering into cooperative  
7 agreements with private sector fuel cell bus developers for  
8 the development of fuel cell-powered school buses, and  
9 subsequently with not less than 2 units of local govern-  
10 ment using natural gas-powered school buses and such  
11 private sector fuel cell bus developers to demonstrate the  
12 use of fuel cell-powered school buses.

13       (b) COST SHARING.—The non-Federal contribution  
14 for activities funded under this section shall be not less  
15 than—

16             (1) 20 percent for fuel infrastructure develop-  
17             ment activities; and

18             (2) 50 percent for demonstration activities and  
19             for development activities not described in paragraph  
20             (1).

21       (c) FUNDING.—No more than \$25,000,000 of the  
22 amounts authorized under section 815 may be used for  
23 carrying out this section for the period encompassing fis-  
24 cal years 2003 through 2006.

1 (d) REPORTS TO CONGRESS.—Not later than 3 years  
2 after the date of the enactment of this Act, and not later  
3 than October 1, 2006, the Secretary shall transmit to the  
4 appropriate congressional committees a report that—

5 (1) evaluates the process of converting natural  
6 gas infrastructure to accommodate fuel cell-powered  
7 school buses; and

8 (2) assesses the results of the development and  
9 demonstration program under this section.

10 **SEC. 816. AUTHORIZATION OF APPROPRIATIONS.**

11 There are authorized to be appropriated to the Sec-  
12 retary of Energy for carrying out sections 814 and 815,  
13 to remain available until expended—

14 (1) \$50,000,000 for fiscal year 2003;

15 (2) \$60,000,000 for fiscal year 2004;

16 (3) \$70,000,000 for fiscal year 2005; and

17 (4) \$80,000,000 for fiscal year 2006.

18 **SEC. 817. BIODIESEL FUEL USE CREDIT.**

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

21 (1) by striking “NOT” in the subsection head-  
22 ing; and

23 (2) by striking “not”.

1 **SEC. 818. RENEWABLE CONTENT OF MOTOR VEHICLE FUEL.**

2 (a) IN GENERAL.—Section 211 of the Clean Air Act  
3 (42 U.S.C. 7545) is amended—

4 (1) by redesignating subsection (o) as sub-  
5 section (q); and

6 (2) by inserting after subsection (n) the fol-  
7 lowing:

8 “(o) RENEWABLE FUEL PROGRAM.—

9 “(1) DEFINITIONS.—In this section:

10 “(A) CELLULOSIC BIOMASS ETHANOL.—

11 The term ‘cellulosic biomass ethanol’ means  
12 ethanol derived from any lignocellulosic or  
13 hemicellulosic matter that is available on a re-  
14 newable or recurring basis, including—

15 “(i) dedicated energy crops and trees;

16 “(ii) wood and wood residues;

17 “(iii) plants;

18 “(iv) grasses;

19 “(v) agricultural commodities and res-  
20 idues;

21 “(vi) fibers;

22 “(vii) animal wastes and other waste  
23 materials; and

24 “(viii) municipal solid waste.

25 “(B) RENEWABLE FUEL.—

1                   “(i) IN GENERAL.—The term ‘renew-  
2                   able fuel’ means motor vehicle fuel that—

3                                 “(I)(aa) is produced from grain,  
4                                 starch, oilseeds, or other biomass; or

5                                 “(bb) is natural gas produced  
6                                 from a biogas source, including a  
7                                 landfill, sewage waste treatment plant,  
8                                 feedlot, or other place where decaying  
9                                 organic material is found; and

10                                “(II) is used to replace or reduce  
11                                the quantity of fossil fuel present in a  
12                                fuel mixture used to operate a motor  
13                                vehicle.

14                                “(ii) INCLUSION.—The term ‘renew-  
15                                able fuel’ includes cellulosic biomass eth-  
16                                anol and biodiesel (as defined in section  
17                                312(f)(1) of the Energy Policy Act of 1992  
18                                (42 U.S.C. 13220(f)(1)).

19                                “(C) SMALL REFINERY.—The term ‘small  
20                                refinery’ means a refinery for which average ag-  
21                                gregate daily crude oil throughput for the cal-  
22                                endar year (as determined by dividing the ag-  
23                                gregate throughput for the calendar year by the  
24                                number of days in the calendar year) do not ex-  
25                                ceed 65,000 barrels.

1 “(2) RENEWABLE FUEL PROGRAM.—

2 “(A) IN GENERAL.—Except as provided in  
3 subparagraph (B)(i)(II), the motor vehicle fuel  
4 sold or introduced into commerce in the United  
5 States in calendar year 2003 or any calendar  
6 year thereafter by a refiner, blender, or im-  
7 porter shall contain, on a 6-month average  
8 basis, a quantity of renewable fuel, measured in  
9 gallons, that is not less than the applicable vol-  
10 ume determined under subparagraph (B).

11 “(B) APPLICABLE VOLUME.—

12 “(i) CALENDAR YEAR 2003.—For cal-  
13 endar year 2003—

14 “(I) for the purpose of subpara-  
15 graph (A), the applicable volume shall  
16 be 2,000,000,000 gallons; and

17 “(II) subparagraph (A) shall  
18 apply only to a refiner, blender, or im-  
19 porter located in Petroleum Adminis-  
20 tration for Defense District II, III, or  
21 IV.

22 “(ii) CALENDAR YEARS 2004 THROUGH  
23 2012.—For the purpose of subparagraph  
24 (A), the applicable volume for any of cal-  
25 endar years 2004 through 2012 shall be

1 determined in accordance with the fol-  
2 lowing table:

<b>“Calendar year:</b>	<b>Applicable volume of renewable fuel: (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.

3 “(iii) CALENDAR YEAR 2013 AND  
4 THEREAFTER.—For the purpose of sub-  
5 paragraph (A), the applicable volume for  
6 calendar year 2013 and each calendar year  
7 thereafter shall be equal to the product ob-  
8 tained by multiplying—

9 “(I) the number of gallons of  
10 motor vehicle fuel that the Adminis-  
11 trator estimates will be sold or intro-  
12 duced into commerce in the calendar  
13 year; and

14 “(II) the ratio that—

15 “(aa) the number of gallons  
16 of motor vehicle fuel sold or in-  
17 troduced into commerce in cal-  
18 endar year 2012 that consists of  
19 renewable fuel; bears to

1                   “(bb) the number of gallons  
2                   of motor vehicle fuel sold or in-  
3                   troduced into commerce in cal-  
4                   endar year 2012.

5                   “(3) CELLULOSIC BIOMASS ETHANOL.—For the  
6                   purpose of paragraph (2), 1 gallon of cellulosic bio-  
7                   mass ethanol shall be considered to be the equivalent  
8                   of 1.5 gallons of renewable fuel.

9                   “(4) CREDIT PROGRAM.—

10                   “(A) IN GENERAL.—The regulations pro-  
11                   mulgated to carry out this subsection shall pro-  
12                   vide for the generation of an appropriate  
13                   amount of credits by a person that refines,  
14                   blends, or imports motor vehicle fuel that con-  
15                   tains, on a 6-month average basis, a quantity of  
16                   renewable fuel that is greater than the quantity  
17                   required for that 6-month period under para-  
18                   graph (2).

19                   “(B) USE OF CREDITS.—A person that  
20                   generates credits under subparagraph (A) may  
21                   use the credits, or transfer all or a portion of  
22                   the credits to another person, for the purpose  
23                   of complying with paragraph (2).

24                   “(C) EXPIRATION OF CREDITS.—A credit  
25                   generated under this paragraph shall expire 1

1 year after the date on which the credit was gen-  
2 erated.

3 “(5) WAIVERS.—

4 “(A) IN GENERAL.—The Administrator, in  
5 consultation with the Secretary of Agriculture  
6 and the Secretary of Energy, may waive the re-  
7 quirement of paragraph (2) in whole or in part  
8 on petition by 1 or more States by reducing the  
9 national quantity of renewable fuel required  
10 under this subsection—

11 “(i) based on a determination by the  
12 Administrator, after public notice and op-  
13 portunity for comment, that implementa-  
14 tion of the requirement would severely  
15 harm the economy or environment of a  
16 State, a region, or the United States; or

17 “(ii) based on a determination by the  
18 Administrator, after public notice and op-  
19 portunity for comment, that there is an in-  
20 adequate domestic supply or distribution  
21 capacity to meet the requirement.

22 “(B) PETITIONS FOR WAIVERS.—The Ad-  
23 ministrator, in consultation with the Secretary  
24 of Agriculture and the Secretary of Energy—

1           “(i) shall approve or deny a State pe-  
2           tition for a waiver of the requirement of  
3           paragraph (2) within 180 days after the  
4           date on which the petition is received; but

5           “(ii) may extend that period for up to  
6           60 additional days to provide for public no-  
7           tice and opportunity for comment and for  
8           consideration of the comments submitted.

9           “(C) TERMINATION OF WAIVERS.—A waiv-  
10          er granted under subparagraph (A) shall termi-  
11          nate after 1 year, but may be renewed by the  
12          Administrator after consultation with the Sec-  
13          retary of Agriculture and the Secretary of En-  
14          ergy.

15          “(6) SMALL REFINERS.—The requirement of  
16          paragraph (2) shall not apply to a small refinery.

17          “(7) REGULATIONS.—Not later than 270 days  
18          after the date of enactment of this paragraph, the  
19          Administrator shall promulgate regulations to carry  
20          out this subsection.”.

21          (b) DISTILLATION INDEX.—Section 211 of the Clean  
22          Air Act (42 U.S.C. 7545) is amended by inserting before  
23          subsection (q) (as redesignated by subsection (a)(1)) the  
24          following:

1       “(p) DISTILLATION INDEX.—Effective January 1,  
2 2004, no person shall manufacture, sell, supply, offer for  
3 sale, or supply, dispense, transport, or introduce into com-  
4 merce gasoline that has a distillation index that exceeds  
5 1,200.”.

6       (c) PENALTIES AND ENFORCEMENT.—Section  
7 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is  
8 amended—

9           (1) in paragraph (1)—

10               (A) in the first sentence, by striking “or  
11               (n)” each place it appears and inserting “(n),  
12               (o), or (p)”;

13               (B) in the second sentence, by striking “or  
14               (m)” and inserting “(m), (o), or (p)”;

15           (2) in the first sentence of paragraph (2), by  
16 striking “and (n)” each place it appears and insert-  
17 ing “(n), (o), and (p)”.

18       (d) ELIMINATION OF ETHANOL WAIVER.—Section  
19 211(h)(4) of the Clean Air Act (42 U.S.C. 7545(h)(4))  
20 is amended by striking “For” and inserting “In the case  
21 of a State that is not located east of the Mississippi River,  
22 for”.

23 **SEC. 819. NEIGHBORHOOD ELECTRIC VEHICLES.**

24       Section 301 of the Energy Policy Act of 1992 (42  
25 U.S.C. 13211) is amended—

1 (1) by striking “or a dual fueled vehicle” and  
2 inserting “, a dual fueled vehicle, or a neighborhood  
3 electric vehicle”;

4 (2) by striking “and” at the end of paragraph  
5 (13);

6 (3) by striking the period at the end of sub-  
7 paragraph (14) and inserting “; and”; and

8 (4) by adding at the end the following:

9 “(15) the term ‘neighborhood electric vehicle’  
10 means a motor vehicle that qualifies as both—

11 “(A) a low-speed vehicle, as such term is  
12 defined in section 571.3(b) of title 49, Code of  
13 Federal Regulations; and

14 “(B) a zero-emission vehicle, as such term  
15 is defined in section 86.1703–99 of title 40,  
16 Code of Federal Regulations.”.

## 17 **Subtitle C—Federal Reformulated** 18 **Fuels**

### 19 **SEC. 821. SHORT TITLE.**

20 This subtitle may be cited as the “Federal Reformu-  
21 lated Fuels Act of 2002”.

### 22 **SEC. 822. LEAKING UNDERGROUND STORAGE TANKS.**

23 (a) USE OF LUST FUNDS FOR REMEDIATION OF  
24 MTBE CONTAMINATION.—Section 9003(h) of the Solid  
25 Waste Disposal Act (42 U.S.C. 6991b(h)) is amended—

1 (1) in paragraph (7)(A)—

2 (A) by striking “paragraphs (1) and (2) of  
3 this subsection” and inserting “paragraphs (1),  
4 (2), and (12)”; and

5 (B) by inserting “and section 9010” before  
6 “if”; and

7 (2) by adding at the end the following:

8 “(12) REMEDIATION OF MTBE CONTAMINA-  
9 TION.—

10 “(A) IN GENERAL.—The Administrator  
11 and the States may use funds made available  
12 under section 9011(1) to carry out corrective  
13 actions with respect to a release of methyl ter-  
14 tiary butyl ether that presents a threat to  
15 human health, welfare, or the environment.

16 “(B) APPLICABLE AUTHORITY.—Subpara-  
17 graph (A) shall be carried out—

18 “(i) in accordance with paragraph (2);

19 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 9011(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; and

15 “(2) by the Administrator, acting under this  
16 subtitle or a State program approved under section  
17 9004.

18 **“SEC. 9011. AUTHORIZATION OF APPROPRIATIONS.**

19 “In addition to amounts made available under section  
20 2007(f), there are authorized to be appropriated from the  
21 Leaking Underground Storage Tank Trust Fund—

22 “(1) to carry out section 9003(h)(12),  
23 \$200,000,000 for fiscal year 2002, to remain avail-  
24 able until expended; and

25 “(2) to carry out section 9010—

1           “(A) \$50,000,000 for fiscal year 2002; and  
2           “(B) \$30,000,000 for each of fiscal years  
3           2003 through 2007.”.

4           (c) TECHNICAL AMENDMENTS.—

5           (1) Section 1001 of the Solid Waste Disposal  
6           Act (42 U.S.C. prec. 6901) is amended by striking  
7           the item relating to section 9010 and inserting the  
8           following:

          “Sec. 9010. Release prevention and compliance.

          “Sec. 9011. Authorization of appropriations.”.

9           (2) Section 9001(3)(A) of the Solid Waste Dis-  
10          posal Act (42 U.S.C. 6991(3)(A)) is amended by  
11          striking “sustances” and inserting “substances”.

12          (3) Section 9003(f)(1) of the Solid Waste Dis-  
13          posal Act (42 U.S.C. 6991b(f)(1)) is amended by  
14          striking “subsection (c) and (d) of this section” and  
15          inserting “subsections (c) and (d)”.

16          (4) Section 9004(a) of the Solid Waste Disposal  
17          Act (42 U.S.C. 6991e(a)) is amended in the second  
18          sentence by striking “referred to” and all that fol-  
19          lows and inserting “referred to in subparagraph (A)  
20          or (B), or both, of section 9001(2).”.

21          (5) Section 9005 of the Solid Waste Disposal  
22          Act (42 U.S.C. 6991d) is amended—

23                 (A) in subsection (a), by striking “study  
24                 taking” and inserting “study, taking”;

1 (B) in subsection (b)(1), by striking  
2 “relevent” and inserting “relevant”; and

3 (C) in subsection (b)(4), by striking “Envi-  
4 ronmental” and inserting “Environmental”.

5 **SEC. 823. AUTHORITY FOR WATER QUALITY PROTECTION**  
6 **FROM FUELS.**

7 (a) IN GENERAL.—Section 211(c) of the Clean Air  
8 Act (42 U.S.C. 7545(c)) is amended—

9 (1) in paragraph (1)(A)—

10 (A) by inserting “fuel or fuel additive or”  
11 after “Administrator any”; and

12 (B) by striking “air pollution which” and  
13 inserting “air pollution, or water pollution,  
14 that”;

15 (2) in paragraph (4)(B), by inserting “or water  
16 quality protection,” after “emission control,”; and

17 (3) by adding at the end the following:

18 “(5) BAN ON THE USE OF MTBE.—Not later  
19 than 4 years after the date of enactment of this  
20 paragraph, the Administrator shall ban use of meth-  
21 yl tertiary butyl ether in motor vehicle fuel.”.

22 (b) NO EFFECT ON LAW REGARDING STATE AU-  
23 THORITY.—The amendments made by subsection (a) have  
24 no effect on the law in effect on the day before the date

1 of enactment of this Act regarding the authority of States  
2 to limit the use of methyl tertiary butyl ether in gasoline.

3 **SEC. 824. WAIVER OF OXYGEN CONTENT REQUIREMENT**  
4 **FOR REFORMULATED GASOLINE.**

5 Section 211(k)(1) of the Clean Air Act (42 U.S.C.  
6 7545(k)(1)) is amended—

7 (1) by striking “Within 1 year after the enact-  
8 ment of the Clean Air Act Amendments of 1990,”  
9 and inserting the following:

10 “(A) IN GENERAL.—Not later than No-  
11 vember 15, 1991,”; and

12 (2) by adding at the end the following:

13 “(B) WAIVER OF OXYGEN CONTENT RE-  
14 QUIREMENT.—

15 “(i) AUTHORITY OF THE GOV-  
16 ERNOR.—

17 “(I) IN GENERAL.—Notwith-  
18 standing any other provision of this  
19 subsection, a Governor of a State,  
20 upon notification by the Governor to  
21 the Administrator during the 90-day  
22 period beginning on the date of enact-  
23 ment of this subparagraph, or during  
24 the 90-day period beginning on the  
25 date on which an area in the State be-

1 comes a covered area by operation of  
2 the second sentence of paragraph  
3 (10)(D), may waive the application of  
4 paragraphs (2)(B) and (3)(A)(v) to  
5 gasoline sold or dispensed in the  
6 State.

7 “(II) OPT-IN AREAS.—A Gov-  
8 ernor of a State that submits an ap-  
9 plication under paragraph (6) may, as  
10 part of that application, waive the ap-  
11 plication of paragraphs (2)(B) and  
12 (3)(A)(v) to gasoline sold or dispensed  
13 in the State.

14 “(ii) TREATMENT AS REFORMULATED  
15 GASOLINE.—In the case of a State for  
16 which the Governor invokes the waiver de-  
17 scribed in clause (i), gasoline that complies  
18 with all provisions of this subsection other  
19 than paragraphs (2)(B) and (3)(A)(v) shall  
20 be considered to be reformulated gasoline  
21 for the purposes of this subsection.

22 “(iii) EFFECTIVE DATE OF WAIVER.—  
23 A waiver under clause (i) shall take effect  
24 on the earlier of—

1           “(I) the date on which the per-  
2           formance standards under subpara-  
3           graph (C) take effect; or

4           “(II) the date that is 270 days  
5           after the date of enactment of this  
6           subparagraph.

7           “(C) MAINTENANCE OF TOXIC AIR POL-  
8           LUTANT EMISSION REDUCTIONS.—

9           “(i) IN GENERAL.—As soon as prac-  
10          ticable after the date of enactment of this  
11          subparagraph, the Administrator shall—

12           “(I) promulgate regulations con-  
13           sistent with subparagraph (A) and  
14           paragraph (3)(B)(ii) to ensure that  
15           reductions of toxic air pollutant emis-  
16           sions achieved under the reformulated  
17           gasoline program under this section  
18           before the date of enactment of this  
19           subparagraph are maintained in  
20           States for which the Governor waives  
21           the oxygenate requirement under sub-  
22           paragraph (B)(i); or

23           “(II) determine that the require-  
24           ment described in clause (iv)—

1                   “(aa) is consistent with the  
2                   bases for performance standards  
3                   described in clause (ii); and

4                   “(bb) shall be deemed to be  
5                   the performance standards under  
6                   clause (ii) and shall be applied in  
7                   accordance with clause (iii).

8                   “(ii) PADD PERFORMANCE STAND-  
9                   ARDS.—The Administrator, in regulations  
10                  promulgated under clause (i)(I), shall es-  
11                  tablish annual average performance stand-  
12                  ards for each Petroleum Administration for  
13                  Defense District (referred to in this sub-  
14                  paragraph as a “PADD”) based on—

15                  “(I) the average of the annual  
16                  aggregate reductions in emissions of  
17                  toxic air pollutants achieved under the  
18                  reformulated gasoline program in each  
19                  PADD during calendar years 1999  
20                  and 2000, determined on the basis of  
21                  the 1999 and 2000 Reformulated  
22                  Gasoline Survey Data, as collected by  
23                  the Administrator; and

1           “(II) such other information as  
2 the Administrator determines to be  
3 appropriate.

4           “(iii) APPLICABILITY.—

5           “(I) IN GENERAL.—The perform-  
6 ance standards under this subpara-  
7 graph shall be applied on an annual  
8 average importer or refinery-by-refin-  
9 ery basis to reformulated gasoline that  
10 is sold or introduced into commerce in  
11 a State for which the Governor waives  
12 the oxygenate requirement under sub-  
13 paragraph (B)(i).

14           “(II) MORE STRINGENT RE-  
15 QUIREMENTS.—The performance  
16 standards under this subparagraph  
17 shall not apply to the extent that any  
18 requirement under section 202(l) is  
19 more stringent than the performance  
20 standards.

21           “(III) STATE STANDARDS.—The  
22 performance standards under this  
23 subparagraph shall not apply in any  
24 State that has received a waiver under  
25 section 209(b).

1           “(IV) CREDIT PROGRAM.—The  
2 Administrator shall provide for the  
3 granting of credits for exceeding the  
4 performance standards under this  
5 subparagraph in the same manner as  
6 provided in paragraph (7).

7           “(iv) STATUTORY PERFORMANCE  
8 STANDARDS.—

9           “(I) IN GENERAL.—Subject to  
10 subclause (IV), if the regulations  
11 under clause (i)(I) have not been pro-  
12 mulgated by the date that is 270 days  
13 after the date of enactment of this  
14 subparagraph, the requirement de-  
15 scribed in subclause (III) shall be  
16 deemed to be the performance stand-  
17 ards under clause (ii) and shall be ap-  
18 plied in accordance with clause (iii).

19           “(II) PUBLICATION IN FEDERAL  
20 REGISTER.—Not later than 30 days  
21 after the date of enactment of this  
22 subparagraph, the Administrator shall  
23 publish in the Federal Register, for  
24 each PADD, the percentage equal to  
25 the average of the annual aggregate

1 reductions in the PADD described in  
2 clause (ii)(I).

3 “(III) TOXIC AIR POLLUTANT  
4 EMISSIONS.—The annual aggregate  
5 emissions of toxic air pollutants from  
6 baseline vehicles when using reformu-  
7 lated gasoline in each PADD shall be  
8 not greater than—

9 “(aa) the aggregate emis-  
10 sions of toxic air pollutants from  
11 baseline vehicles when using  
12 baseline gasoline in the PADD;  
13 reduced by

14 “(bb) the quantity obtained  
15 by multiplying the aggregate  
16 emissions described in item (aa)  
17 for the PADD by the percentage  
18 published under subclause (II)  
19 for the PADD.

20 “(IV) SUBSEQUENT REGULA-  
21 TIONS.—Through promulgation of  
22 regulations under clause (i)(I), the  
23 Administrator may modify the per-  
24 formance standards established under  
25 subclause (I) to require each PADD

1 to achieve a greater percentage reduc-  
2 tion than the percentage published  
3 under subclause (II) for the PADD.”.

4 **SEC. 825. PUBLIC HEALTH AND ENVIRONMENTAL IMPACTS**  
5 **OF FUELS AND FUEL ADDITIVES.**

6 Section 211(b) of the Clean Air Act (42 U.S.C.  
7 7545(b)) is amended—

8 (1) in paragraph (2)—

9 (A) by striking “may also” and inserting  
10 “shall, on a regular basis,”; and

11 (B) by striking subparagraph (A) and in-  
12 serting the following:

13 “(A) to conduct tests to determine poten-  
14 tial public health and environmental effects of  
15 the fuel or additive (including carcinogenic,  
16 teratogenic, or mutagenic effects); and”;

17 (2) by adding at the end the following:

18 “(4) ETHYL TERTIARY BUTYL ETHER.—

19 “(A) IN GENERAL.—Not later than 2 years  
20 after the date of enactment of this paragraph,  
21 the Administrator shall—

22 “(i) conduct a study on the effects on  
23 public health, air quality, and water re-  
24 sources of increased use of, and the feasi-

1 bility of using as substitutes for methyl  
2 tertiary butyl ether in gasoline—

3 “(I) ethyl tertiary butyl ether;  
4 and

5 “(II) other ethers, as determined  
6 by the Administrator; and

7 “(ii) submit to the Committee on En-  
8 ergy and Commerce of the House of Rep-  
9 resentatives and the Committee on Envi-  
10 ronment and Public Works of the Senate a  
11 report describing the results of the study.

12 “(B) CONTRACTS FOR STUDY.—In car-  
13 rying out this paragraph, the Administrator  
14 may enter into 1 or more contracts with non-  
15 governmental entities.”.

16 **SEC. 826. ANALYSES OF MOTOR VEHICLE FUEL CHANGES.**

17 Section 211 of the Clean Air Act (42 U.S.C. 7545)  
18 is amended—

19 (1) by redesignating subsection (o) as sub-  
20 section (p); and

21 (2) by inserting after subsection (n) the fol-  
22 lowing:

23 “(o) ANALYSES OF MOTOR VEHICLE FUEL CHANGES  
24 AND EMISSIONS MODEL.—

25 “(1) ANTI-BACKSLIDING ANALYSIS.—

1           “(A) DRAFT ANALYSIS.—Not later than 4  
2           years after the date of enactment of this sub-  
3           section, the Administrator shall publish for pub-  
4           lic comment a draft analysis of the changes in  
5           emissions of air pollutants and air quality due  
6           to the use of motor vehicle fuel and fuel addi-  
7           tives resulting from implementation of the  
8           amendments made by the Federal Reformulated  
9           Fuels Act of 2002.

10           “(B) FINAL ANALYSIS.—After providing a  
11           reasonable opportunity for comment but not  
12           later than 5 years after the date of enactment  
13           of this subsection, the Administrator shall pub-  
14           lish the analysis in final form.

15           “(2) EMISSIONS MODEL.—For the purposes of  
16           this subsection, as soon as the necessary data are  
17           available, the Administrator shall develop and final-  
18           ize an emissions model that reasonably reflects the  
19           effects of fuel characteristics or components on emis-  
20           sions from vehicles in the motor vehicle fleet during  
21           calendar year 2005.”.

22 **SEC. 827. ADDITIONAL OPT-IN AREAS UNDER REFORMU-**  
23 **LATED GASOLINE PROGRAM.**

24           Section 211(k)(6) of the Clean Air Act (42 U.S.C.  
25 7545(k)(6)) is amended—

1           (1) by striking “(6) OPT-IN AREAS.—(A)  
2 Upon” and inserting the following:

3           “(6) OPT-IN AREAS.—

4                 “(A) CLASSIFIED AREAS.—

5                     “(i) IN GENERAL.—Upon”;

6           (2) in subparagraph (B), by striking “(B) If”  
7 and inserting the following:

8                     “(ii) EFFECT OF INSUFFICIENT DO-  
9                     MESTIC CAPACITY TO PRODUCE REFORMU-  
10                    LATED GASOLINE.—If”;

11           (3) in subparagraph (A)(ii) (as so redesign-  
12 nated)—

13                 (A) in the first sentence, by striking “sub-  
14 paragraph (A)” and inserting “clause (i)”; and

15                 (B) in the second sentence, by striking  
16 “this paragraph” and inserting “this subpara-  
17 graph”; and

18           (4) by adding at the end the following:

19                 “(B) NONCLASSIFIED AREAS.—

20                     “(i) IN GENERAL.—In accordance  
21 with section 110, a State may submit to  
22 the Administrator, and the Administrator  
23 may approve, a State implementation plan  
24 revision that provides for application of the  
25 prohibition specified in paragraph (5) in

1 any portion of the State that is not a cov-  
 2 ered area or an area referred to in sub-  
 3 paragraph (A)(i).

4 “(ii) PERIOD OF EFFECTIVENESS.—  
 5 Under clause (i), the State implementation  
 6 plan shall establish a period of effective-  
 7 ness for applying the prohibition specified  
 8 in paragraph (5) to a portion of a State  
 9 that—

10 “(I) commences not later than 1  
 11 year after the date of approval by the  
 12 Administrator of the State implemen-  
 13 tation plan; and

14 “(II) ends not earlier than 4  
 15 years after the date of commencement  
 16 under subclause (I).”.

17 **SEC. 828. MTBE MERCHANT PRODUCER CONVERSION**  
 18 **ASSISTANCE.**

19 Section 211(c) of the Clean Air Act (42 U.S.C.  
 20 7545(c)) (as amended by section 823(a)(3)) is amended  
 21 by adding at the end the following:

22 “(6) MTBE MERCHANT PRODUCER CONVER-  
 23 SION ASSISTANCE.—

24 “(A) IN GENERAL.—The Administrator  
 25 may make grants to merchant producers of

1 methyl tertiary butyl ether in the United States  
2 to assist the producers in the conversion of eli-  
3 gible production facilities described in subpara-  
4 graph (B) to the production of other fuel addi-  
5 tives that—

6 “(i) will be consumed in nonattain-  
7 ment areas;

8 “(ii) will assist the nonattainment  
9 areas in achieving attainment with a na-  
10 tional primary ambient air quality stand-  
11 ard;

12 “(iii) will not degrade air quality or  
13 surface or ground water quality or re-  
14 sources; and

15 “(iv) have been registered and tested  
16 in accordance with the requirements of this  
17 section.

18 “(B) 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 ban on the use of methyl ter-  
8 tiary butyl ether under paragraph (5).

9           “(C) AUTHORIZATION OF APPROPRIA-  
10 TIONS.—There is authorized to be appropriated  
11 to carry out this paragraph \$250,000,000 for  
12 each of fiscal years 2002 through 2004.”.

13 **TITLE IX—ENERGY EFFICIENCY**  
14 **AND ASSISTANCE TO LOW IN-**  
15 **COME CONSUMERS**

16 **Subtitle A—Low Income Assistance**  
17 **and State Energy Programs**

18 **SEC. 901. INCREASED FUNDING FOR LIHEAP, WEATHERIZA-**  
19 **TION ASSISTANCE, AND STATE ENERGY**  
20 **GRANTS.**

21           (a) LIHEAP.—(1) Section 2602(b) of the Low-In-  
22 come Home Energy Assistance Act of 1981 (42 U.S.C.  
23 8621(b)) is amended by striking the first sentence and in-  
24 serting the following: “There are authorized to be appro-  
25 priated to carry out the provisions of this title (other than

1 section 2607A), \$3,400,000,000 for each of fiscal years  
2 2003 through 2005.”.

3 (2) Section 2602(e) of the Low-Income Home Energy  
4 Assistance Act of 1981 (42 U.S.C. 8621(e) is amended  
5 by striking “\$600,000,000” and inserting  
6 “\$1,000,000,000”.

7 (3) Section 2609A(a) of the Low-Income Energy As-  
8 sistance Act of 1981 (42 U.S.C. 8628a(a)) is amended by  
9 striking “not more than \$300,000” and inserting: “not  
10 more than \$750,000”.

11 (b) WEATHERIZATION ASSISTANCE.—Section 422 of  
12 the Energy Conservation and Production Act (42 U.S.C.  
13 6872) is amended by striking “for fiscal years 1999  
14 through 2003 such sums as may be necessary.” and in-  
15 serting: “\$325,000,000 for fiscal year 2003,  
16 \$400,000,000 for fiscal year 2004, and \$500,000,000 for  
17 fiscal year 2005.”.

18 **SEC. 902. STATE ENERGY PROGRAMS.**

19 (a) STATE ENERGY CONSERVATION PLANS.—Section  
20 362 of the Energy Policy and Conservation Act (42 U.S.C.  
21 6322)) is amended by adding at the end the following:

22 “(g) The Secretary shall, at least once every three  
23 years, invite the Governor of each State to review and,  
24 if necessary, revise the energy conservation plan of the  
25 State submitted under subsection (b) or (e). Such reviews

1 should consider the energy conservation plans of other  
2 States within the region, and identify opportunities and  
3 actions that may be carried out in pursuit of common en-  
4 ergy conservation goals.”.

5 (b) STATE ENERGY CONSERVATION GOALS.—Section  
6 364 of the Energy Policy and Conservation Act (42 U.S.C.  
7 6324) is amended to read as follows:

8 “SEC. 364. Each State energy conservation plan with  
9 respect to which assistance is made available under this  
10 part on or after the date of enactment of the Energy Pol-  
11 icy Act of 2002 shall contain a goal, consisting of an im-  
12 provement of 25 percent or more in the efficiency of use  
13 of energy in the State concerned in calendar year 2010  
14 as compared to calendar year 1990, and may contain in-  
15 terim goals.”.

16 (c) STATE ENERGY CONSERVATION GRANTS.—Sec-  
17 tion 365(f) of the Energy Policy and Conservation Act (42  
18 U.S.C. 6325(f)) is amended by striking “for fiscal years  
19 1999 through 2003 such sums as may be necessary.” and  
20 inserting: “\$100,000,000 for each of fiscal years 2003 and  
21 2004; \$125,000,000 for fiscal year 2005; and such sums  
22 as may be necessary for each fiscal year thereafter.”.

1 **SEC. 903. ENERGY EFFICIENT SCHOOLS.**

2 (a) ESTABLISHMENT.—There is established in the  
3 Department of Energy the High Performance Schools  
4 Program (in this section referred to as the “Program”).

5 (b) GRANTS.—The Secretary of Energy may make  
6 grants to a State energy office—

7 (1) to assist school districts in the State to im-  
8 prove the energy efficiency of school buildings;

9 (2) to administer the Program; and

10 (3) to promote participation in the Program.

11 (c) GRANTS TO ASSIST SCHOOL DISTRICTS.—The  
12 Secretary shall condition grants under subsection (b)(1)  
13 on the State energy office using the grants to assist school  
14 districts that have demonstrated—

15 (1) a need for the grants to build additional  
16 school buildings to meet increasing elementary or  
17 secondary enrollments or to renovate existing school  
18 buildings; and

19 (2) a commitment to use the grant funds to de-  
20 velop high performance school buildings in accord-  
21 ance with a plan that the State energy office, in con-  
22 sultation with the State educational agency, has de-  
23 termined is feasible and appropriate to achieve the  
24 purposes for which the grant is made.

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

1           (1) evaluate compliance by school districts with  
2 requirements of this section;

3           (2) distribute information and materials to  
4 clearly define and promote the development of high  
5 performance school buildings for both new and exist-  
6 ing facilities;

7           (3) organize and conduct programs for school  
8 board members, school personnel, architects, engi-  
9 neers, and others to advance the concepts of high  
10 performance school buildings;

11           (4) obtain technical services and assistance in  
12 planning and designing high performance school  
13 buildings; or

14           (5) collect and monitor data and information  
15 pertaining to the high performance school building  
16 projects.

17       (e) GRANTS TO PROMOTE PARTICIPATION.—Grants  
18 under subsection (b)(3) shall be used for promotional and  
19 marketing activities, including facilitating private and  
20 public financing, promoting the use of energy savings per-  
21 formance contracts, working with school administrations,  
22 students, and communities, and coordinating public ben-  
23 efit programs.

24       (f) SUPPLEMENTING GRANT FUNDS.—The State en-  
25 ergy office shall encourage qualifying school districts to

1 supplement funds awarded pursuant to this section with  
2 funds from other sources in the implementation of their  
3 plans.

4 (g) ALLOCATIONS.—Except as provided in subsection  
5 (h), funds appropriated to carry out this section shall be  
6 allocated as follows:

7 (1) 70 percent shall be used to make grants  
8 under subsection (b)(1);

9 (2) 15 percent shall be used to make grants  
10 under subsection (b)(2); and

11 (3) 15 percent shall be used to make grants  
12 under subsection (b)(3).

13 (h) OTHER FUNDS.—The Secretary of Energy may  
14 retain an amount, not to exceed \$300,000 per year, to  
15 assist State energy offices in coordinating and imple-  
16 menting the Program. Such funds may be used to develop  
17 reference materials to further define the principles and cri-  
18 teria to achieve high performance school buildings.

19 (i) AUTHORIZATION OF APPROPRIATIONS.—For  
20 grants under subsection (b) there are authorized to be  
21 appropriated—

22 (1) \$200,000,000 for fiscal year 2003;

23 (2) \$210,000,000 for fiscal year 2004;

24 (3) \$220,000,000 for fiscal year 2005;

25 (4) \$230,000,000 for fiscal year 2006; and

1           (5) such sums as may be necessary for fiscal  
2           year 2007 and each fiscal year thereafter through  
3           fiscal year 2012.

4           (j) DEFINITIONS.—For purposes of this section:

5           (1) HIGH PERFORMANCE SCHOOL BUILDING.—

6           The term “high performance school building” means  
7           a school building that, in its design, construction,  
8           operation, and maintenance—

9                   (A) maximizes use of renewable energy and  
10                  energy-efficient technologies and systems;

11                  (B) is cost-effective on a life-cycle basis;

12                  (C) uses affordable, environmentally pref-  
13                  erable, and durable materials;

14                  (D) enhances indoor environmental quality;

15                  (E) protects and conserves water; and

16                  (F) optimizes site potential.

17           (2) RENEWABLE ENERGY.—The term “renew-  
18           able energy” means energy produced by solar, wind,  
19           biomass, ocean, geothermal, or hydroelectric power.

20           (3) SCHOOL.—The term “school” means—

21                   (A) an “elementary school” as that term is  
22                   defined in section 14101(14) of the Elementary  
23                   and Secondary Education Act of 1965 (20  
24                   U.S.C. 8801(14)),

1 (B) a “secondary school” as that term is  
2 defined in section 14101(25) of the Elementary  
3 and Secondary Education Act of 1965 (20  
4 U.S.C. 8801(25)), or

5 (C) an elementary or secondary Indian  
6 school funded by the Bureau of Indian Affairs.

7 (4) STATE EDUCATIONAL AGENCY.—The term  
8 “State educational agency” has the same meaning  
9 given such term in section 14101(28) of the Elemen-  
10 tary and Secondary Education Act of 1965 (20  
11 U.S.C. 8801(28)).

12 (5) STATE ENERGY OFFICE.—The term “State  
13 energy office” means the State agency responsible  
14 for developing State energy conservation plans under  
15 section 362 of the Energy Policy and Conservation  
16 Act (42 U.S.C. 6322), or, if no such agency exists,  
17 a State agency designated by the Governor of the  
18 State.

19 **SEC. 904. LOW INCOME COMMUNITY ENERGY EFFICIENCY**  
20 **PILOT PROGRAM.**

21 (a) GRANTS.—The Secretary of Energy is authorized  
22 to make grants to private, non-profit community develop-  
23 ment organizations to improve energy efficiency, identify  
24 and develop alternative renewable and distributed energy

1 supplies, and increase energy conservation in low income  
2 rural and urban communities.

3 (b) PURPOSE OF GRANTS.—The Secretary may make  
4 grants on a competitive basis to a community development  
5 organization for—

6 (1) investments that develop alternative renew-  
7 able and distributed energy supplies;

8 (2) energy efficiency projects and energy con-  
9 servation programs;

10 (3) studies and other activities that improve en-  
11 ergy efficiency in low income rural and urban com-  
12 munities;

13 (4) planning and development assistance for in-  
14 creasing the energy efficiency of buildings and facili-  
15 ties; and

16 (5) technical and financial assistance to local  
17 government and private entities on developing new  
18 renewable and distributed sources of power or com-  
19 bined heat and power generation.

20 (c) AUTHORIZATION OF APPROPRIATIONS.—For the  
21 purposes of this section there are authorized to be appro-  
22 priated to the Secretary of Energy an amount not to ex-  
23 ceed \$10 million for fiscal year 2003 and each fiscal year  
24 thereafter through fiscal year 2005.

1           **Subtitle B—Federal Energy**  
 2                           **Efficiency**

3 **SEC. 911. ENERGY MANAGEMENT REQUIREMENTS.**

4           (a) ENERGY REDUCTION GOALS.—Section 543(a)(1)  
 5 of the National Energy Conservation Policy Act (42  
 6 U.S.C. 8253(a)(1)) is amended to read as follows:

7                   “(1) Subject to paragraph (2), each agency  
 8 shall apply energy conservation measures to, and  
 9 shall improve the design for the construction of, the  
 10 Federal buildings of the agency (including each in-  
 11 dustrial or laboratory facility) so that the energy  
 12 consumption per gross square foot of the Federal  
 13 buildings of the agency in calendar years 2002  
 14 through 2011 is reduced, as compared with the en-  
 15 ergy consumption per gross square foot of the Fed-  
 16 eral buildings of the agency in calendar year 2000,  
 17 by the percentage specified in the following table:

<b>Calendar 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

18           (b) REVIEW AND REVISION OF ENERGY PERFORM-  
 19 ANCE REQUIREMENT.—Section 543(a) of the National

1 Energy Conservation Policy Act (42 U.S.C. 8253(a)) is  
2 further amended by adding at the end the following:

3           “(3) Not later than December 31, 2010, the  
4 Secretary shall review the results of the implementa-  
5 tion of the energy performance requirement estab-  
6 lished under paragraph (1) and submit to Congress  
7 recommendations concerning energy performance re-  
8 quirements for calendar years 2012 through 2021.”.

9           (c) EXCLUSIONS.—Section 543(c)(1) of the National  
10 Energy Conservation Policy Act (42 U.S.C. 8253(c)(1))  
11 is amended to read as follows:

12           “(1)(A) An agency may exclude, from the en-  
13 ergy performance requirement for a calendar year  
14 established under subsection (a) and the energy  
15 management requirement established under sub-  
16 section (b), any Federal building or collection of  
17 Federal buildings, if the head of the agency finds  
18 that—

19                   “(i) compliance with those requirements  
20 would be impracticable;

21                   “(ii) the agency has completed and sub-  
22 mitted all federally required energy manage-  
23 ment reports;

24                   “(iii) the agency has achieved compliance  
25 with the energy efficiency requirements of this

1 Act, the Energy Policy Act of 1992, Executives  
2 Orders, and other federal law; and

3 “(iv) the agency has implemented all prac-  
4 ticable, life-cycle cost-effective projects with re-  
5 spect to the Federal building or collection of  
6 Federal buildings to be excluded.

7 “(B) A finding of impracticability under sub-  
8 paragraph (A)(i) shall be based on—

9 “(i) the energy intensiveness of activities  
10 carried out in the Federal building or collection  
11 of Federal buildings; or

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

15 (d) REVIEW BY SECRETARY.—Section 543(c)(2) of  
16 the National Energy Conservation Policy Act (42 U.S.C.  
17 8253(c)(2)) is amended—

18 (1) by striking “impracticability standards” and  
19 inserting “standards for exclusion”; and

20 (2) by striking “a finding of impracticability”  
21 and inserting “the exclusion”.

22 (e) CRITERIA.—Section 543(c) of the National En-  
23 ergy Conservation Policy Act (42 U.S.C. 8253(c)) is fur-  
24 ther amended by adding at the end the following:



1           “(1) DEADLINE.—By October 1, 2004, all Fed-  
2           eral buildings shall be metered or submetered in ac-  
3           cordance with guidelines established by the Sec-  
4           retary under paragraph (2).

5           “(2) GUIDELINES.—

6           “(A) IN GENERAL.—Not later than 180  
7           days after the date of enactment of this sub-  
8           section, the Secretary, in consultation with the  
9           Department of Defense, the General Service  
10          Administration and representatives from the  
11          metering industry, energy services industry, na-  
12          tional laboratories, universities and federal fa-  
13          cility energy managers, shall establish guide-  
14          lines for agencies to carry out paragraph (1).

15          “(B) REQUIREMENTS FOR GUIDELINES.—

16          The guidelines shall—

17                 “(i) take into consideration—

18                         “(I) the cost of metering and  
19                         submetering and the reduced cost of  
20                         operation and maintenance expected  
21                         to result from metering and sub-  
22                         metering;

23                         “(II) the extent to which meter-  
24                         ing and submetering are expected to  
25                         result in increased potential for en-

1 energy management, increased potential  
2 for energy savings and energy effi-  
3 ciency improvement, and cost and en-  
4 ergy savings due to utility contract  
5 aggregation; and

6 “(III) the measurement and  
7 verification protocols of the Depart-  
8 ment of Energy;

9 “(ii) include recommendations con-  
10 cerning the amount of funds and the num-  
11 ber of trained personnel necessary to gath-  
12 er and use the metering information to  
13 track and reduce energy use;

14 “(iii) establish 1 or more dates, not  
15 later than 1 year after the date of issuance  
16 of the guidelines, on which the requirement  
17 specified in paragraph (1) shall take effect;  
18 and

19 “(iv) establish exclusions from the re-  
20 quirement specified in paragraph (1) based  
21 on the de minimus quantity of energy use  
22 of a Federal building, industrial process, or  
23 structure.

24 “(f) USE OF ENERGY CONSUMPTION DATA IN FED-  
25 ERAL BUILDINGS.—

1           “(1) IN GENERAL.—Beginning not later than  
2           January 1, 2003, each agency shall use, to the max-  
3           imum extent practicable, for the purposes of efficient  
4           use of energy and reduction in the cost of electricity  
5           used in the Federal buildings of the agency, interval  
6           consumption data that measure on a real-time or  
7           daily basis consumption of electricity in the Federal  
8           buildings of the agency.

9           “(2) PLAN.—As soon as practicable after the  
10          date of enactment of this subsection, in a report  
11          submitted by the agency under section 548(a), each  
12          agency shall submit to the Secretary a plan describ-  
13          ing how the agency will implement the requirement  
14          of paragraph (1), including how the agency will des-  
15          ignate personnel primarily responsible for achieving  
16          the requirement.”.

17 **SEC. 913. FEDERAL BUILDING PERFORMANCE STANDARDS.**

18          (a) REVISED STANDARDS.—Section 305(a) of the  
19          Energy Conservation and Production Act (42 U.S.C.  
20          6834(a)) is amended—

21                 (1) in paragraph (2)(A), by striking “CABO  
22                 Model Energy Code, 1992” and inserting “the 2000  
23                 International Energy Conservation Code”; and

24                 (2) by adding at the end the following:

1           “(3) REVISED FEDERAL BUILDING ENERGY EF-  
2           FICIENCY PERFORMANCE STANDARDS.—

3           “(A) IN GENERAL.—Not later than 1 year  
4           after the date of enactment of this paragraph,  
5           the Secretary of Energy shall establish, by rule,  
6           revised Federal building energy efficiency per-  
7           formance standards that require that—

8           “(i) new commercial buildings and  
9           multifamily high rise residential buildings  
10          be constructed so as to exceed, if cost-ef-  
11          fective, the applicable Energy Star criteria  
12          or the most recent ASHRAE Standard  
13          90.1, by not less than 10 percent;

14          “(ii) new residential buildings (other  
15          than those described in clause (i)) be con-  
16          structed so as to exceed, if cost-effective,  
17          the level of energy efficiency required  
18          under the applicable Energy Star criteria  
19          or the most recent version of the 2000  
20          International Energy Conservation Code by  
21          not less than 10 percent; and

22          “(iii) sustainable design principles are  
23          applied to the siting, design, and construc-  
24          tion of all new and replacement buildings.

1           “(B) ADDITIONAL REVISIONS.—Not later  
2 than 1 year after the date of approval of  
3 amendments to ASHRAE Standard 90.1 or the  
4 2000 International Energy Conservation Code,  
5 the Secretary of Energy shall determine, based  
6 on the cost-effectiveness of the requirements  
7 under the amendments, whether the revised  
8 standards established under this paragraph  
9 should be updated to reflect the amendments.

10           “(C) STATEMENT ON COMPLIANCE OF NEW  
11 BUILDINGS.—In the budget request of the Fed-  
12 eral agency for each fiscal year and each report  
13 submitted by the Federal agency under section  
14 548(a) of the National Energy Conservation  
15 Policy Act (42 U.S.C. 8258(a)), the head of  
16 each Federal agency shall include—

17           “(i) a list of all new Federal buildings  
18 of the Federal agency; and

19           “(ii) a statement concerning whether  
20 the Federal buildings meet or exceed the  
21 revised standards established under this  
22 paragraph, including a metering and com-  
23 missioning component that is in compli-  
24 ance with the measurement and

1 verification protocols of the Department of  
2 Energy.

3 “(D) AUTHORIZATION OF APPROPRIA-  
4 TIONS.—There are authorized to be appro-  
5 priated such sums as are necessary to carry out  
6 this paragraph and to implement the revised  
7 standards established under this paragraph.”.

8 (b) ENERGY LABELING PROGRAM.—Section 305(a)  
9 of the Energy Conservation and Production Act (42  
10 U.S.C. 6834(a)) is further amended by adding at the end  
11 the following:

12 “(e) ENERGY LABELING PROGRAM.—The Secretary  
13 of Energy, in cooperation with the Administrator of the  
14 Environmental Protection Agency, shall develop an energy  
15 labeling program for new Federal buildings that exceed  
16 the revised standards established under subsection (a)(3)  
17 by 15 percent or more.”.

18 **SEC. 914. PROCUREMENT OF ENERGY EFFICIENT PROD-**  
19 **UCTS.**

20 (a) REQUIREMENTS.—Part 3 of title V of the Na-  
21 tional Energy Conservation Policy Act is amended by add-  
22 ing at the end the following:

23 **“SEC. 552. FEDERAL PROCUREMENT OF ENERGY EFFI-**  
24 **CIENT PRODUCTS.**

25 “(a) DEFINITIONS.—In this section:

1           “(1) ENERGY STAR PRODUCT.—The term ‘En-  
2           ergy Star product’ means a product that is rated for  
3           energy efficiency under an Energy Star program.

4           “(2) ENERGY STAR PROGRAM.—The term ‘En-  
5           ergy Star program’ means the program established  
6           by section 324A of the Energy Policy and Conserva-  
7           tion Act.

8           “(3) EXECUTIVE AGENCY.—The term ‘executive  
9           agency’ has the meaning given the term in section  
10          4 of the Office of Federal Procurement Policy Act  
11          (41 U.S.C. 403).

12          “(4) FEMP DESIGNATED PRODUCT.—The term  
13          ‘FEMP designated product’ means a product that is  
14          designated under the Federal Energy Management  
15          Program of the Department of Energy as being  
16          among the highest 25 percent of equivalent products  
17          for energy efficiency.

18          “(b) PROCUREMENT OF ENERGY EFFICIENT PROD-  
19          UCTS.—

20                 “(1) REQUIREMENT.—To meet the require-  
21                 ments of an executive agency for an energy con-  
22                 suming product, the head of the executive agency  
23                 shall, except as provided in paragraph (2), procure—

24                         “(A) an Energy Star product; or

25                         “(B) a FEMP designated product.

1           “(2) EXCEPTIONS.—The head of an executive  
2 agency is not required to procure an Energy Star  
3 product or FEMP designated product under para-  
4 graph (1) if—

5                   “(A) an Energy Star product or FEMP  
6 designated product is not cost effective over the  
7 life cycle of the product; or

8                   “(B) no Energy Star product or FEMP  
9 designated product is reasonably available that  
10 meets the requirements of the executive agency.

11           “(3) PROCUREMENT PLANNING.—The head of  
12 an executive agency shall incorporate into the speci-  
13 fications for all procurements involving energy con-  
14 suming products and systems, and into the factors  
15 for the evaluation of offers received for the procure-  
16 ment, criteria for energy efficiency that are con-  
17 sistent with the criteria used for rating Energy Star  
18 products and for rating FEMP designated products.

19           “(c) LISTING OF ENERGY EFFICIENT PRODUCTS IN  
20 FEDERAL CATALOGS.—Energy Star and FEMP des-  
21 ignated products shall be clearly identified and promi-  
22 nently displayed in any inventory or listing of products  
23 by the General Services Administration or the Defense Lo-  
24 gistics Agency.

1 (b) CONFORMING AMENDMENT.—The table of con-  
2 tents in section 1(b) of the National Energy Conservation  
3 Policy Act (42 U.S.C. 8201 note) is amended by inserting  
4 after the item relating to section 551 the following:

“Sec. 552. Federal Government procurement of energy efficient products.”

5 (c) REGULATIONS.—Not later than 180 days after  
6 the effective date specified in subsection (f), the Secretary  
7 of Energy shall issue guidelines to carry out section 552  
8 of the National Energy Conservation Policy Act (as added  
9 by subsection (a)).

10 (d) DESIGNATION OF ENERGY STAR PRODUCTS.—  
11 The Administrator of the Environmental Protection Agen-  
12 cy and the Secretary of Energy shall expedite the process  
13 of designating products as Energy Star products (as de-  
14 fined in section 552 of the National Energy Conservation  
15 Policy Act (as added by subsection (a))).

16 (e) DESIGNATION OF ELECTRIC MOTORS.—In the  
17 case of electric motors of 1 to 500 horsepower, agencies  
18 shall select only premium efficient motors that meet a  
19 standard designated by the Secretary. The Secretary shall  
20 designate such a standard within 120 days of the enact-  
21 ment of this paragraph, after considering the rec-  
22 ommendations of associated electric motor manufacturers  
23 and energy efficiency groups.

24 (f) EFFECTIVE DATE.—Subsection (a) and the  
25 amendment made by that subsection take effect on the

1 date that is 180 days after the date of enactment of this  
2 Act.

3 **SEC. 915. COST SAVINGS FROM REPLACEMENT FACILITIES.**

4 Section 801(a) of the National Energy Conservation  
5 Policy Act (42 U.S.C. 8287(a)) is amended by adding at  
6 the end the following:

7 “(3)(A) In the case of an energy savings con-  
8 tract or energy savings performance contract pro-  
9 viding for energy savings through the construction  
10 and operation of one or more buildings or facilities  
11 to replace one or more existing buildings or facilities,  
12 benefits ancillary to the purpose of such contract  
13 under paragraph (1) may include savings resulting  
14 from reduced costs of operation and maintenance at  
15 such replacement buildings or facilities when com-  
16 pared with costs of operation and maintenance at  
17 the buildings or facilities being replaced.

18 “(B) Notwithstanding paragraph (2)(B), aggre-  
19 gate annual payments by an agency under an energy  
20 savings contract or energy savings performance con-  
21 tract referred to in subparagraph (A) may take into  
22 account (through the procedures developed pursuant  
23 to this section) savings resulting from reduced costs  
24 of operation and maintenance as described in sub-  
25 paragraph (A).”.

1 **SEC. 916. REPEAL OF ENERGY SAVINGS PERFORMANCE**

2 **CONTRACT SUNSET.**

3 Section 801(c) of the National Energy Conservation  
4 Policy Act (42 U.S.C. 8287(c)) is repealed.

5 **SEC. 917. ENERGY SAVINGS PERFORMANCE CONTRACT**

6 **DEFINITIONS.**

7 (a) **ENERGY SAVINGS.**—Section 804(2) of the Na-  
8 tional Energy Conservation Policy Act (42 U.S.C.  
9 8287c(2)) is amended to read as follows:

10 “(2) The term ‘energy savings’ means a reduc-  
11 tion in the cost of energy or water, from a base cost  
12 established through a methodology set forth in the  
13 contract, used in either—

14 “(A) an existing federally owned building  
15 or buildings or other federally owned facilities  
16 as a result of—

17 “(i) the lease or purchase of operating  
18 equipment, improvements, altered oper-  
19 ation and maintenance, or technical serv-  
20 ices;

21 “(ii) the increased efficient use of ex-  
22 isting energy sources by cogeneration or  
23 heat recovery, excluding any cogeneration  
24 process for other than a federally owned  
25 building or buildings or other federally  
26 owned facilities; or

1                   “(iii) the increased efficient use of ex-  
2                   isting water sources; or

3                   “(B) a replacement facility under sec-  
4                   tion 801(a)(3).”.

5           (b) ENERGY SAVINGS CONTRACT.—Section 804(3) of  
6 the National Energy Conservation Policy Act (42 U.S.C.  
7 8287c(3)) is amended to read as follows:

8                   “(3) The terms ‘energy savings contract’ and  
9                   ‘energy savings performance contract’ mean a con-  
10                  tract which provides for—

11                   “(A) the performance of services for the  
12                   design, acquisition, installation, testing, oper-  
13                   ation, and, where appropriate, maintenance and  
14                   repair, of an identified energy or water con-  
15                   servation measure or series of measures at one  
16                   or more locations; or

17                   “(B) energy savings through the construc-  
18                   tion and operation of one or more buildings or  
19                   facilities to replace one or more existing build-  
20                   ings or facilities.”.

21           (c) ENERGY OR WATER CONSERVATION MEASURE.—  
22 Section 804(4) of the National Energy Conservation Pol-  
23 icy Act (42 U.S.C. 8287c(4)) is amended to read as fol-  
24 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. 918. 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. 919. 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;

20          and

21                   “(iv)(I) in the case of renewable en-  
22          ergy or alternative energy project, has a  
23          simple payback period of not more than 15  
24          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. 920. 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  
2 all facilities administered by the Congress (referred  
3 to in this section as ‘congressional buildings’) to  
4 meet the energy performance requirements for Fed-  
5 eral 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           (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 not used in  
23                   general purpose applications, including trans-  
24                   formers commonly known as drive transformers,  
25                   rectifier transformers, autotransformers,

1 Uninterruptible Power System transformers,  
2 impedance transformers, harmonic trans-  
3 formers, regulating transformers, sealed and  
4 nonventilating transformers, machine tool  
5 transformers, welding transformers, grounding  
6 transformers, or testing transformers; or

7 “(iii) any transformer excluded by the Sec-  
8 retary by rule because such transformer is de-  
9 signed for special applications and the applica-  
10 tion of standards to such transformer would not  
11 result in significant energy savings.

12 “(37) The term ‘standby mode’ means the low-  
13 est amount of electric power used by a household ap-  
14 pliance when not performing its active functions, as  
15 defined on an individual product basis by the Sec-  
16 retary.

17 “(38) The term ‘torchiere’ means a portable  
18 electric lamp with a reflector bowl that directs light  
19 upward so as to give indirect illumination.

20 “(39) The term ‘transformer’ means a device  
21 consisting of 2 or more coils of insulated wire that  
22 transfers alternating current by electromagnetic in-  
23 duction from one coil to another to change the origi-  
24 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 the test method used under the Energy Star  
11           program of the Environmental Protection Agency for  
12           illuminated exit signs, as in effect on the date of en-  
13           actment 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  
15 marketplace for achieving energy efficiency and to re-  
16 duce 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) The seasonal energy efficiency ratio of cen-  
9 tral air conditioners and central air conditioning  
10 heat pumps manufactured on or after January 23,  
11 2006 shall be no less than 13.0.

12 “(2) The heating seasonal performance factor  
13 of central air conditioning heat pumps manufactured  
14 on or after January 23, 2006 shall be no less than  
15 7.7.

16 “(3) This subsection shall not apply to a central  
17 air conditioner or heat pump that—

18 “(A) has a rated cooling capacity equal to  
19 or less than 30,000 Btu per hour;

20 “(B) has an outdoor or indoor unit having  
21 at least two overall exterior dimensions or an  
22 overall displacement that—

23 “(i) is substantially smaller than those  
24 of other units that are currently installed

1 in site-built single family homes, and of a  
2 similar cooling or heating capacity, and

3 “(ii) if increased would result in a sig-  
4 nificant increase in the cost of installation  
5 or would result in a significant loss in the  
6 utility of the product to the consumer; and

7 “(3) is of a product type that was available for  
8 purchase in the United States as of December 1,  
9 2000.”.

10 **SEC. 928. ENERGY CONSERVATION STANDARDS FOR ADDI-**  
11 **TIONAL CONSUMER AND COMMERCIAL PROD-**  
12 **UCTS.**

13 Section 325 of the Energy Policy and Conservation  
14 Act (42 U.S.C. 6295) is amended by adding at the end  
15 the following:

16 “(u) **STANDBY MODE ELECTRIC ENERGY CONSUMP-**  
17 **TION.—**

18 “(1) **INITIAL RULEMAKING.—**

19 “(A) The Secretary shall, within 18  
20 months after the date of enactment of this sub-  
21 section, prescribe by notice and comment, defi-  
22 nitions of standby mode and test procedures for  
23 the standby mode power use of battery chargers  
24 and external power supplies. In establishing  
25 these test procedures, the Secretary shall con-

1           sider, among other factors, existing test proce-  
2           dures used for measuring energy consumption  
3           in standby mode and assess the current and  
4           projected future market for battery chargers  
5           and external power supplies. This assessment  
6           shall include estimates of the significance of po-  
7           tential energy savings from technical improve-  
8           ments to these products and suggested product  
9           classes for standards. Prior to the end of this  
10          time period, the Secretary shall hold a scoping  
11          workshop to discuss and receive comments on  
12          plans for developing energy conservation stand-  
13          ards for standby mode energy use for these  
14          products.

15                 “(B) The Secretary shall, within 3 years  
16          after the date of enactment of this subsection,  
17          issue a final rule that determines whether en-  
18          ergy conservation standards shall be promul-  
19          gated for battery chargers and external power  
20          supplies or classes thereof. For each product  
21          class, any such standards shall be set at the  
22          lowest level of standby energy use that—

23                         (i) meets the criteria of subsections  
24                         (o), (p), (q), (r), (s) and (t); and

1                   (ii) will result in significant overall  
2                   annual energy savings, considering both  
3                   standby mode and other operating modes.

4                   “(2) DESIGNATION OF ADDITIONAL COVERED  
5                   PRODUCTS.—

6                   “(A) Not later than 180 days after the  
7                   date of enactment of this subsection, the Sec-  
8                   retary shall publish for public comment and  
9                   public hearing a notice to determine whether  
10                  any noncovered products should be designated  
11                  as covered products for the purpose of insti-  
12                  tuting a rulemaking under this section to deter-  
13                  mine whether an energy conservation standard  
14                  restricting standby mode energy consumption,  
15                  should be promulgated; providing that any re-  
16                  striction on standby mode energy consumption  
17                  shall be limited to major sources of such con-  
18                  sumption.

19                  “(B) In making the determinations pursu-  
20                  ant to subparagraph (A) of whether to des-  
21                  ignate new covered products and institute  
22                  rulemakings, the Secretary shall, among other  
23                  relevant factors and in addition to the criteria  
24                  in section 322(b), consider—

1           “(i) standby mode power consumption  
2           compared to overall product energy con-  
3           sumption; and

4           “(ii) the priority and energy savings  
5           potential of standards which may be pro-  
6           mulgated under this subsection compared  
7           to other required rulemakings under this  
8           section and the available resources of the  
9           Department to conduct such rulemakings.

10          “(C) Not later than one year after the date  
11          of enactment of this subsection, the Secretary  
12          shall issue a determination of any new covered  
13          products for which he intends to institute  
14          rulemakings on standby mode pursuant to this  
15          section and he shall state the dates by which he  
16          intends to initiate those rulemakings.

17          “(3) REVIEW OF STANDBY ENERGY USE IN  
18          COVERED PRODUCTS.—In determining pursuant to  
19          section 323 whether test procedures and energy con-  
20          servation standards pursuant to section 325 should  
21          be revised, the Secretary shall consider for covered  
22          products which are major sources of standby mode  
23          energy consumption whether to incorporate standby  
24          mode into such test procedures and energy conserva-  
25          tion standards, taking into account, among other

1 relevant factors, the criteria for non-covered prod-  
2 ucts in subparagraph (B) of this subsection.

3 “(4) RULEMAKING FOR STANDBY MODE.—

4 “(A) Any rulemaking instituted under this  
5 subsection or for covered products under this  
6 section which restricts standby mode power con-  
7 sumption shall be subject to the criteria and  
8 procedures for issuing energy conservation  
9 standards set forth in section 325 and the cri-  
10 teria set forth in paragraph 2(B) of this sub-  
11 section.

12 “(B) No standard can be proposed for new  
13 covered products or covered products in a  
14 standby mode unless the Secretary has promul-  
15 gated applicable test procedures for each prod-  
16 uct pursuant to section 323.

17 “(C) The provisions of section 327 shall  
18 apply to new covered products which are subject  
19 to the rulemakings for standby mode after a  
20 final rule has been issued.

21 (5) EFFECTIVE DATE.—Any standard promul-  
22 gated under this subsection shall be applicable to  
23 products manufactured or imported three years after  
24 the date of promulgation.

1           (6) VOLUNTARY PROGRAMS TO REDUCE STAND-  
2           BY MODE ENERGY USE.—The Secretary and the Ad-  
3           ministrators shall collaborate and develop programs,  
4           including programs pursuant to section 324A and  
5           other voluntary industry agreements or codes of con-  
6           duct, which are designed to reduce standby mode en-  
7           ergy use.

8           “(v) SUSPENDED CEILING FANS, VENDING MA-  
9           CHINES, UNIT HEATERS, AND COMMERCIAL REFRIG-  
10          ERATORS, FREEZERS AND REFRIGERATOR-FREEZERS.—  
11          The Secretary shall within 24 months after the date on  
12          which testing requirements are prescribed by the Sec-  
13          retary pursuant to section 323(f), prescribe, by rule, en-  
14          ergy conservation standards for suspended ceiling fans, re-  
15          frigerated bottled or canned beverage vending machines,  
16          unit heaters, and commercial refrigerators, freezers and  
17          refrigerator-freezers. In establishing standards under this  
18          subsection, the Secretary shall use the criteria and proce-  
19          dures contained in subsections (l) and (m). Any standard  
20          prescribed under this subsection shall apply to products  
21          manufactured 3 years after the date of publication of a  
22          final rule establishing such standard.

23          “(w) ILLUMINATED EXIT SIGNS.—Within 18 months  
24          after the date of enactment of this subsection, the Sec-  
25          retary shall prescribe energy conservation standards for

1 illuminated exit signs in accordance with subsections (l)  
2 and (m) and the Energy Star Program requirements for  
3 exit signs prescribed by the Environmental Protection  
4 Agency as in effect on the date of enactment of this sub-  
5 section.

6       “(x) TORCHIERES.—Torchieres manufactured on or  
7 after January 1, 2005—

8               “(1) shall consume not more than 190 watts of  
9 power; and

10              “(2) shall not be capable of operating with  
11 lamps that total more than 190 watts.

12       “(y) LOW VOLTAGE DRY-TYPE TRANSFORMERS.—  
13 The efficiency of low voltage dry-type transformers manu-  
14 factured on or after January 1, 2005 shall be the Class  
15 I Efficiency Levels for low voltage dry-type transformers  
16 specified in Table 4–2 of the ‘Guide for Determining En-  
17 ergy Efficiency for Distribution Transformers’ published  
18 by the National Electrical Manufacturers Association  
19 (NEMA TP–1–1996), as in effect on the date of enact-  
20 ment of this subsection.

1 **SEC. 929. CONSUMER EDUCATION ON ENERGY EFFICIENCY**  
 2 **BENEFITS OF AIR CONDITIONING, HEATING,**  
 3 **AND VENTILATION MAINTENANCE.**

4 Section 337 of the Energy Policy and Conservation  
 5 Act (42 U.S.C. 6307) is amended by adding at the end  
 6 the following:

7 “(c) HVAC MAINTENANCE.—(1) For the purpose of  
 8 ensuring that installed air conditioning and heating sys-  
 9 tems operate at their maximum rated efficiency levels, the  
 10 Secretary shall, within 180 days of the date of enactment  
 11 of this subsection, carry out a program to educate home-  
 12 owners and small business owners concerning the energy  
 13 savings resulting from properly conducted maintenance of  
 14 air conditioning, heating, and ventilating systems.

15 “(2) The Secretary may carry out the program in co-  
 16 operation with industry trade associations, industry mem-  
 17 bers, and energy efficiency organizations.”.

18 **Subtitle D—Housing Efficiency**

19 **SEC. 931. CAPACITY BUILDING FOR ENERGY EFFICIENT, AF-**  
 20 **FORDABLE HOUSING.**

21 Section 4(b) of the HUD Demonstration Act of 1993  
 22 (42 U.S.C. 9816 note) is amended—

23 (1) in paragraph (1), by inserting before the  
 24 semicolon at the end the following: “, including ca-  
 25 pabilities regarding the provision of energy efficient,

1 affordable housing and residential energy conserva-  
2 tion measures”; and

3 (2) in paragraph (2), by inserting before the  
4 semicolon the following: “, including such activities  
5 relating to the provision of energy efficient, afford-  
6 able housing and residential energy conservation  
7 measures that benefit low-income families”.

8 **SEC. 932. INCREASE OF CDBG PUBLIC SERVICES CAP FOR**  
9 **ENERGY CONSERVATION AND EFFICIENCY**  
10 **ACTIVITIES.**

11 Section 105(a)(8) of the Housing and Community  
12 Development Act of 1974 (42 U.S.C. 5305(a)(8)) is  
13 amended—

14 (1) by inserting “or efficiency” after “energy  
15 conservation”;

16 (2) by striking “, and except that” and insert-  
17 ing “; except that”; and

18 (3) by inserting before the period at the end the  
19 following: “; and except that each percentage limita-  
20 tion under this paragraph on the amount of assist-  
21 ance provided under this title that may be used for  
22 the provision of public services is hereby increased  
23 by 10 percent, but such percentage increase may be  
24 used only for the provision of public services con-  
25 cerning energy conservation or efficiency”.

1 **SEC. 933. FHA MORTGAGE INSURANCE INCENTIVES FOR**  
2 **ENERGY EFFICIENT HOUSING.**

3 (a) SINGLE FAMILY HOUSING MORTGAGE INSUR-  
4 ANCE.—Section 203(b)(2) of the National Housing Act  
5 (12 U.S.C. 1709(b)(2)) is amended, in the first undesig-  
6 nated paragraph beginning after subparagraph (B)(iii)  
7 (relating to solar energy systems)—

8 (1) by inserting “or paragraph (10)”; and

9 (2) by striking “20 percent” and inserting “30  
10 percent”.

11 (b) MULTIFAMILY HOUSING MORTGAGE INSUR-  
12 ANCE.—Section 207(c) of the National Housing Act (12  
13 U.S.C. 1713(c)) is amended, in the second undesignated  
14 paragraph beginning after paragraph (3) (relating to solar  
15 energy systems and residential energy conservation meas-  
16 ures), by striking “20 percent” and inserting “30 per-  
17 cent”.

18 (c) COOPERATIVE HOUSING MORTGAGE INSUR-  
19 ANCE.—Section 213(p) of the National Housing Act (12  
20 U.S.C. 1715e(p)) is amended by striking “20 per centum”  
21 and inserting “30 percent”.

22 (d) REHABILITATION AND NEIGHBORHOOD CON-  
23 SERVATION HOUSING MORTGAGE INSURANCE.—Section  
24 220(d)(3)(B)(iii) of the National Housing Act (12 U.S.C.  
25 1715k(d)(3)(B)(iii)) is amended by striking “20 per cen-  
26 tum” and inserting “30 percent”.

1 (e) LOW-INCOME MULTIFAMILY HOUSING MORT-  
2 GAGE INSURANCE.—Section 221(k) of the National Hous-  
3 ing Act (12 U.S.C. 1715l(k)) is amended by striking “20  
4 per centum” and inserting “30 percent”.

5 (f) ELDERLY HOUSING MORTGAGE INSURANCE.—  
6 The proviso at the end of section 213(c)(2) of the National  
7 Housing Act (12 U.S.C. 1715v(e)(2)) is amended by strik-  
8 ing “20 per centum” and inserting “30 percent”.

9 (g) CONDOMINIUM HOUSING MORTGAGE INSUR-  
10 ANCE.—Section 234(j) of the National Housing Act (12  
11 U.S.C. 1715y(j)) is amended by striking “20 per centum”  
12 and inserting “30 percent”.

13 **SEC. 934. PUBLIC HOUSING CAPITAL FUND.**

14 Section 9(d)(1) of the United States Housing Act of  
15 1937 (42 U.S.C. 1437g(d)(1)) is amended—

16 (1) in subparagraph (I), by striking “and” at  
17 the end;

18 (2) in subparagraph (K), by striking the period  
19 at the end and inserting “; and”; and

20 (3) by adding at the end the following new sub-  
21 paragraph:

22 “(L) improvement of energy and water-use  
23 efficiency by installing fixtures and fittings that  
24 conform to the American Society of Mechanical  
25 Engineers/American National Standards Insti-

1           tute standards A112.19.2–1998 and  
2           A112.18.1–2000, or any revision thereto, appli-  
3           cable at the time of installation, and by increas-  
4           ing energy efficiency and water conservation by  
5           such other means as the Secretary determines  
6           are appropriate.”.

7 **SEC. 935. GRANTS FOR ENERGY-CONSERVING IMPROVE-**  
8 **MENTS FOR ASSISTED HOUSING.**

9           Section 251(b)(1) of the National Energy Conserva-  
10          tion Policy Act (42 U.S.C. 8231(1)) is amended—

11           (1) by striking “financed with loans” and in-  
12          serting “assisted”;

13           (2) by inserting after “1959,” the following:  
14          “which are eligible multifamily housing projects (as  
15          such term is defined in section 512 of the Multi-  
16          family Assisted Housing Reform and Affordability  
17          Act of 1997 (42 U.S.C. 1437f note) and are subject  
18          to a mortgage restructuring and rental assistance  
19          sufficiency plans under such Act,”; and

20           (3) by inserting after the period at the end of  
21          the first sentence the following new sentence: “Such  
22          improvements may also include the installation of  
23          energy and water conserving fixtures and fittings  
24          that conform to the American Society of Mechanical  
25          Engineers/American National Standards Institute

1 standards A112.19.2–1998 and A112.18.1–2000, or  
 2 any revision thereto, applicable at the time of instal-  
 3 lation.”.

4 **SEC. 936. NORTH AMERICAN DEVELOPMENT BANK.**

5 Part 2 of subtitle D of title V of the North American  
 6 Free Trade Agreement Implementation Act (22 U.S.C.  
 7 290m–290m–3) is amended by adding at the end the fol-  
 8 lowing:

9 **“SEC. 545. SUPPORT FOR CERTAIN ENERGY POLICIES.**

10 “Consistent with the focus of the Bank’s Charter on  
 11 environmental infrastructure projects, the Board members  
 12 representing the United States should use their voice and  
 13 vote to encourage the Bank to finance projects related to  
 14 clean and efficient energy, including energy conservation,  
 15 that prevent, control, or reduce environmental pollutants  
 16 or contaminants.”.

17 **DIVISION D—INTEGRATION OF**  
 18 **ENERGY POLICY AND CLI-**  
 19 **MATE CHANGE POLICY**

20 **TITLE X—CLIMATE CHANGE**  
 21 **POLICY FORMULATION**

22 **Subtitle A—Global Warming**

23 **SEC. 1001. SENSE OF CONGRESS ON GLOBAL WARMING.**

24 (a) FINDINGS.—The Congress makes the following  
 25 findings:

1           (1) Evidence continues to build that increases  
2           in atmospheric concentrations of man-made green-  
3           house gases are contributing to global climate  
4           change.

5           (2) The Intergovernmental Panel on Climate  
6           Change (IPCC) has concluded that “there is new  
7           and stronger evidence that most of the warming ob-  
8           served over the last 50 years is attributable to  
9           human activities” and that the Earth’s average tem-  
10          perature can be expected to rise between 2.5 and  
11          10.4 degrees Fahrenheit in this century.

12          (3) The National Academy of Sciences con-  
13          firmed the findings of the IPCC, stating that “the  
14          IPCC’s conclusion that most of the observed warm-  
15          ing of the last 50 years is likely to have been due  
16          to the increase of greenhouse gas concentrations ac-  
17          curately reflects the current thinking of the scientific  
18          community on this issue” and that “there is general  
19          agreement that the observed warming is real and  
20          particularly strong within the past twenty years”.

21          (4) The IPCC has stated that in the last 40  
22          years, the global average sea level has risen, ocean  
23          heat content has increased, and snow cover and ice  
24          extent have decreased, which threatens to inundate

1 low-lying island nations and coastal regions through-  
2 out the world.

3 (5) The Environmental Protection Agency has  
4 found that global warming may harm the United  
5 States by altering crop yields, accelerating sea level  
6 rise, and increasing the spread of tropical infectious  
7 diseases.

8 (6) In 1992, the United States ratified the  
9 United Nations Framework Convention of Climate  
10 Change, done at New York on May 9, 1992, the ul-  
11 timate objective of which is the “stabilization of  
12 greenhouse gas concentrations in the atmosphere at  
13 a level that would prevent dangerous anthropogenic  
14 interference with the climate system”, and which  
15 stated in part “the Parties to the Convention are to  
16 implement policies with the aim of returning . . . to  
17 their 1990 levels anthropogenic emissions of carbon  
18 dioxide and other greenhouse gases.”

19 (7) There is a shared international responsi-  
20 bility to address this problem, as industrial nations  
21 are the largest historic and current emitters of  
22 greenhouse gases and developing nations’ emissions  
23 will significantly increase in the future.

24 (8) The United Nations Framework Convention  
25 on Climate Change further states that “developed

1 country Parties should take the lead in combating  
2 climate change and the adverse effects thereof”, as  
3 these nations are the largest historic and current  
4 emitters of greenhouse gases.

5 (9) Senate Resolution 98 of July 1997, which  
6 expressed that developing nations, especially the  
7 largest emitters, must also be included in any fu-  
8 ture, binding climate change treaty and such a trea-  
9 ty must not result in serious harm to the United  
10 States economy, should not cause the United States  
11 to abandon its shared responsibility to help find a  
12 solution to the global climate change dilemma.

13 (10) American businesses need to know how  
14 governments worldwide will respond to the threat of  
15 global warming.

16 (11) The United States has benefitted and will  
17 continue to benefit from investments in the research,  
18 development and deployment of a range of clean en-  
19 ergy and efficiency technologies that can mitigate  
20 global warming and that can make the United  
21 States economy more productive, bolster energy se-  
22 curity, create jobs, and protect the environment.

23 (b) SENSE OF CONGRESS.—It is the sense of the  
24 United States Congress that the United States should  
25 demonstrate international leadership and responsibility in

1 mitigating the health, environmental, and economic  
2 threats posed by global warming by:

3           (1) taking responsible action to ensure signifi-  
4           cant and meaningful reductions in emissions of  
5           greenhouse gases from all sectors;

6           (2) creating flexible international and domestic  
7           mechanisms, including joint implementation, tech-  
8           nology deployment, emissions trading and carbon se-  
9           questration projects that will reduce, avoid, and se-  
10          quester greenhouse gas emissions; and

11          (3) participating in international negotiations,  
12          including putting forth a proposal at the next meet-  
13          ing of the Conference of the Parties, with the objec-  
14          tive of securing United States' participation in a re-  
15          vised Kyoto Protocol or other future binding climate  
16          change agreements in a manner that is consistent  
17          with the environmental objectives of the Framework  
18          Convention on Climate Change, that protects the  
19          economic interests of the United States, and recog-  
20          nizes the shared international responsibility for ad-  
21          dressing climate change, including developing coun-  
22          try participation.

1           **Subtitle B—Climate Change**  
2                           **Strategy**

3 **SEC. 1011. SHORT TITLE.**

4           This title may be cited as the “Climate Change Strat-  
5 egy and Technology Innovation Act of 2002”.

6 **SEC. 1012. FINDINGS.**

7           Congress finds that—

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

11                   (2) in 1992, the Senate ratified the United Na-  
12                   tions Framework Convention on Climate Change,  
13                   done at New York on May 9, 1992, the ultimate ob-  
14                   jective of which is the “stabilization of greenhouse  
15                   gas concentrations in the atmosphere at a level that  
16                   would prevent dangerous anthropogenic interference  
17                   with the climate system”;

18                   (3) although science currently cannot determine  
19                   precisely what atmospheric concentrations are “dan-  
20                   gerous”, the current trajectory of greenhouse gas  
21                   emissions will lead to a continued rise in greenhouse  
22                   gas concentrations in the atmosphere, not stabiliza-  
23                   tion;

24                   (4) the remaining scientific uncertainties call  
25                   for temperance of human actions, but not inaction;

1           (5) greenhouse gases are associated with a wide  
2 range of human activities, including energy produc-  
3 tion, transportation, agriculture, forestry, manufac-  
4 turing, buildings, and other activities;

5           (6) the economic consequences of poorly de-  
6 signed climate change response strategies, or of in-  
7 action, may cost the global economy trillions of dol-  
8 lars;

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

11           (8) stabilization of greenhouse gas concentra-  
12 tions in the atmosphere will require transformational  
13 change in the global energy system and other emit-  
14 ting sectors at an almost unimaginable level—a  
15 veritable industrial revolution is required;

16           (9) such a revolution can occur only if the revo-  
17 lution is preceded by research and development that  
18 leads to bold technological breakthroughs;

19           (10) over the decade preceding the date of en-  
20 actment of this Act—

21           (A) energy research and development  
22 budgets in the public and private sectors have  
23 declined precipitously and have not been fo-  
24 cused on the climate change response challenge;  
25 and

1 (B) the investments that have been made  
2 have not been guided by a comprehensive strat-  
3 egy;

4 (11) the negative trends in research and devel-  
5 opment funding described in paragraph (10) must  
6 be reversed with a focus on not only traditional en-  
7 ergy research and development, but also bolder,  
8 breakthrough research;

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

13 (A) stabilization of greenhouse gas con-  
14 centrations in the atmosphere at a level that  
15 would prevent dangerous anthropogenic inter-  
16 ference with the climate system; and

17 (B) a response strategy with 4 key ele-  
18 ments consisting of—

19 (i) definition of interim emission miti-  
20 gation targets coupled with specific mitiga-  
21 tion approaches that cumulatively yield  
22 stabilized atmospheric greenhouse gas con-  
23 centrations;

24 (ii) a national commitment—

1 (I) to double energy research and  
2 development by the United States  
3 public and private sectors; and

4 (II) in carrying out such research  
5 and development, to provide a high  
6 degree of emphasis on bold, break-  
7 through technologies that will make  
8 possible a profound transformation of  
9 the energy, transportation, industrial,  
10 agricultural, and building sectors of  
11 the United States;

12 (iii) climate adaptation research that  
13 focuses on response actions necessary to  
14 adapt to climate change that may have oc-  
15 curred or may occur under any future cli-  
16 mate change scenario; and

17 (iv) continued research, building on  
18 the substantial scientific understanding of  
19 climate change that exists as of the date of  
20 enactment of this Act, that focuses on re-  
21 solving the remaining scientific, technical,  
22 and economic uncertainties, to aid in the  
23 development of sound response strategies;  
24 and

1           (13) inherent in each of the 4 key elements of  
2           the response strategy is consideration of the inter-  
3           national nature of the challenge, which will  
4           require—

5                   (A) establishment of joint climate response  
6                   strategies and joint research programs;

7                   (B) assistance to developing countries and  
8                   countries in transition for building technical  
9                   and institutional capacities and incentives for  
10                  addressing the challenge; and

11                  (C) promotion of public awareness of the  
12                  issue.

13 **SEC. 1013. PURPOSE.**

14           The purpose of this title is to implement the new ap-  
15           proach described in section 1012(12) by developing a na-  
16           tional focal point for climate change response through—

17                   (1) the establishment of the National Office of  
18                   Climate Change Response within the Executive Of-  
19                   fice of the President to develop the United States  
20                   Climate Change Response Strategy that—

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

23                           (B) is supportive of and integrated in the  
24                           overall energy, transportation, industrial, agri-

1 cultural, forestry, and environmental policies of  
2 the United States;

3 (C) takes into account—

4 (i) the diversity of energy sources and  
5 technologies;

6 (ii) supply-side and demand-side solu-  
7 tions; and

8 (iii) national infrastructure, energy  
9 distribution, and transportation systems;

10 (D) provides for the inclusion and equi-  
11 table participation of Federal, State, tribal, and  
12 local government agencies, nongovernmental or-  
13 ganizations, academia, scientific bodies, indus-  
14 try, the public, and other interested parties;

15 (E) incorporates new models of Federal-  
16 State cooperation;

17 (F) defines a comprehensive energy tech-  
18 nology research and development program  
19 that—

20 (i) recognizes the important contribu-  
21 tions that research and development pro-  
22 grams in existence on the date of enact-  
23 ment of this title make toward addressing  
24 the climate change response challenge; and

1 (ii) includes an additional research  
2 and development agenda that focuses on  
3 the bold, breakthrough technologies that  
4 are critical to the long-term stabilization of  
5 greenhouse gas concentrations in the at-  
6 mosphere;

7 (G) includes consideration of other efforts  
8 to address critical environmental and health  
9 concerns, including clean air, clean water, and  
10 responsible land use policies; and

11 (H) incorporates initiatives to promote the  
12 deployment of clean energy technologies devel-  
13 oped in the United States and abroad;

14 (2) the establishment of the Interagency Task  
15 Force, chaired by the Director of the White House  
16 Office, to serve as the primary mechanism through  
17 which the heads of Federal agencies work together  
18 to develop and implement the Strategy;

19 (3) the establishment of the Office of Climate  
20 Change Technology within the Department of  
21 Energy—

22 (A) to manage, as its primary responsi-  
23 bility, an innovative research and development  
24 program that focuses on the bold, breakthrough  
25 technologies that are critical to the long-term

1 stabilization of greenhouse gas concentrations  
2 in the atmosphere; and

3 (B) to provide analytical support and data  
4 to the White House Office, other agencies, and  
5 the public;

6 (4) the establishment of an independent review  
7 board—

8 (A) to review the Strategy and annually  
9 assess United States and international progress  
10 toward the goal of stabilization of greenhouse  
11 gas concentrations in the atmosphere at a level  
12 that would prevent dangerous anthropogenic in-  
13 terference with the climate system; and

14 (B) to assess—

15 (i) the performance of each Federal  
16 agency that has responsibilities under the  
17 Strategy; and

18 (ii) the adequacy of the budget of  
19 each such Federal agency to fulfill the re-  
20 sponsibilities of the Federal agency under  
21 the Strategy; and

22 (5) the establishment of offices in, or the car-  
23 rying out of activities by, the Department of Agri-  
24 culture, the Department of Transportation, the De-  
25 partment of Commerce, the Environmental Protec-

1       tion Agency, and other Federal agencies as nec-  
2       essary to carry out this title.

3 **SEC. 1014. DEFINITIONS.**

4       In this title:

5           (1) CLIMATE-FRIENDLY TECHNOLOGY.—The  
6       term “climate-friendly technology” means any en-  
7       ergy supply or end-use technology that, over the life  
8       of the technology and compared to similar tech-  
9       nology in commercial use as of the date of enact-  
10      ment of this Act—

11           (A) results in reduced emissions of green-  
12      house gases;

13           (B) may substantially lower emissions of  
14      other pollutants; and

15           (C) may generate substantially smaller or  
16      less hazardous quantities of solid or liquid  
17      waste.

18           (2) DEPARTMENT.—The term “Department”  
19      means the Department of Energy.

20           (3) DEPARTMENT OFFICE.—The term “Depart-  
21      ment Office” means the Office of Climate Change  
22      Technology of the Department established by section  
23      1017(a).

1           (4) FEDERAL AGENCY.—The term “Federal  
2 agency” has the meaning given the term “agency”  
3 in section 551 of title 5, United States Code.

4           (5) GREENHOUSE GAS.—The term “greenhouse  
5 gas” means—

6           (A) an anthropogenic gaseous constituent  
7 of the atmosphere (including carbon dioxide,  
8 methane, nitrous oxide, chlorofluorocarbons,  
9 hydrofluorocarbons, perfluorocarbons, sulfur  
10 hexafluoride, and tropospheric ozone) that ab-  
11 sorbs and re-emits infrared radiation and influ-  
12 ences climate; and

13           (B) an anthropogenic aerosol (such as  
14 black soot) that absorbs solar radiation and in-  
15 fluences climate.

16           (6) INTERAGENCY TASK FORCE.—The term  
17 “Interagency Task Force” means the United States  
18 Climate Change Response Interagency Task Force  
19 established under section 1016(d).

20           (7) KEY ELEMENT.—The term “key element”,  
21 with respect to the Strategy, means—

22           (A) definition of interim emission mitiga-  
23 tion targets coupled with specific mitigation ap-  
24 proaches that cumulatively result in stabiliza-  
25 tion of greenhouse gas concentrations;

1 (B) a national commitment—

2 (i) to double energy research and de-  
3 velopment by the United States public and  
4 private sectors; and

5 (ii) in carrying out such research and  
6 development, to provide a high degree of  
7 emphasis on bold, breakthrough tech-  
8 nologies that will make possible a profound  
9 transformation of the energy, transpor-  
10 tation, industrial, agricultural, and build-  
11 ing sectors of the United States;

12 (C) climate adaptation research that fo-  
13 cuses on response actions necessary to adapt to  
14 climate change that may have occurred or may  
15 occur under any future climate change scenario;  
16 and

17 (D) research that focuses on resolving the  
18 remaining scientific, technical, and economic  
19 uncertainties associated with climate change to  
20 the extent that those uncertainties bear on  
21 strategies to achieve the long-term goal of sta-  
22 bilization of greenhouse gas concentrations.

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, as con-  
19 templated by the United Nations Framework Con-  
20 vention on Climate Change, done at New York on  
21 May 9, 1992.

22 (12) STRATEGY.—The term “Strategy” means  
23 the United States Climate Change Response Strat-  
24 egy developed under section 1015.



1           (6) be consistent with the goals of energy,  
2           transportation, industrial, agricultural, forestry, en-  
3           vironmental, and other relevant policies of the  
4           United States;

5           (7) have a scope that considers the totality of  
6           United States public, private, and public-private sec-  
7           tor actions that bear on the long-term goal;

8           (8) be based on an evaluation of a wide range  
9           of approaches for achieving the long-term goal, in-  
10          cluding evaluation of—

11                   (A) a variety of cost-effective Federal and  
12                   State policies, programs, standards, and incen-  
13                   tives;

14                   (B) policies that integrate and promote in-  
15                   novative, market-based solutions in the United  
16                   States and in foreign countries; and

17                   (C) participation in other international in-  
18                   stitutions, or in the support of international ac-  
19                   tivities, that are established or conducted to fa-  
20                   cilitate stabilization of greenhouse gas con-  
21                   centrations;

22          (9) in the final recommendations of the Strat-  
23          egy, emphasize response strategies that achieve the  
24          long-term goal and provide specific recommendations  
25          concerning—

1 (A) measures determined to be appropriate  
2 for short-term implementation, giving pref-  
3 erence to cost-effective and technologically fea-  
4 sible measures that will—

5 (i) produce measurable net reductions  
6 in United States emissions that lead to-  
7 ward achievement of the long-term goal;  
8 and

9 (ii) minimize any adverse short-term  
10 and long-term economic and social impacts  
11 on the United States;

12 (B) the development of technologies that  
13 have the potential for long-term  
14 implementation—

15 (i) giving preference to technologies  
16 that have the potential to reduce signifi-  
17 cantly the overall cost of stabilization of  
18 greenhouse gas concentrations; and

19 (ii) considering a full range of energy  
20 sources, energy conversion and use tech-  
21 nologies, and efficiency options;

22 (C) such changes in institutional and tech-  
23 nology systems as are necessary to adapt to cli-  
24 mate change in the short-term and the long-  
25 term;

1 (D) such review, modification, and en-  
2 hancement of the scientific, technical, and eco-  
3 nomic research efforts of the United States,  
4 and improvements to the data resulting from  
5 research, as are appropriate to improve the ac-  
6 curacy of predictions concerning climate change  
7 and the economic and social costs and opportu-  
8 nities relating to climate change; and

9 (E) changes that should be made to  
10 project and grant evaluation criteria under  
11 other Federal research and development pro-  
12 grams so that those criteria do not inhibit de-  
13 velopment of climate-friendly technologies;

14 (10) be developed in a manner that provides for  
15 meaningful participation by, and consultation  
16 among, Federal, State, tribal, and local government  
17 agencies, nongovernmental organizations, academia,  
18 scientific bodies, industry, the public, and other in-  
19 terested parties in accordance with subsections  
20 (b)(4)(C)(iv)(II) and (d)(3)(B)(iii) of section 1016;

21 (11) address how the United States should en-  
22 gage State, tribal, and local governments in devel-  
23 oping and carrying out a response to climate change;

24 (12) promote, to the maximum extent prac-  
25 ticable, public awareness, outreach, and information-

1 sharing to further the understanding of the full  
2 range of climate change-related issues;

3 (13) provide a detailed explanation of how the  
4 measures recommended by the Strategy will ensure  
5 that they do not result in serious harm to the econ-  
6 omy of the United States;

7 (14) provide a detailed explanation of how the  
8 measures recommended by the Strategy will achieve  
9 the long-term goal of stabilization of greenhouse gas  
10 concentrations;

11 (15) include any recommendations for legisla-  
12 tive and administrative actions necessary to imple-  
13 ment the Strategy;

14 (16) serve as a framework for climate change  
15 response actions by all Federal agencies;

16 (17) recommend which Federal agencies are, or  
17 should be, responsible for the various aspects of im-  
18 plementation of the Strategy and any budgetary im-  
19 plications;

20 (18) address how the United States should en-  
21 gage foreign governments in developing an inter-  
22 national response to climate change; and

23 (19) be subject to review by an independent re-  
24 view board in accordance with section 1019.

1 (b) SUBMISSION TO CONGRESS.—Not later than 1  
2 year after the date of enactment of this title, the President  
3 shall submit to Congress the Strategy.

4 (c) UPDATING.—Not later than 2 years after the date  
5 of submission of the Strategy to Congress under sub-  
6 section (b), and at the end of each 2-year period there-  
7 after, the President shall submit to Congress an updated  
8 version of the Strategy.

9 (d) PROGRESS REPORTS.—Not later than 1 year  
10 after the date of submission of the Strategy to Congress  
11 under subsection (b), and at the end of each 1-year period  
12 thereafter, the President shall submit to Congress a report  
13 that—

14 (1) describes the progress on implementation of  
15 the Strategy; and

16 (2) provides recommendations for improvement  
17 of the Strategy and the implementation of the Strat-  
18 egy.

19 (e) ALIGNMENT WITH ENERGY, TRANSPORTATION,  
20 INDUSTRIAL, AGRICULTURAL, FORESTRY, AND OTHER  
21 POLICIES.—The President, the Director of the White  
22 House Office, the Secretary, and the other members of  
23 the Interagency Task Force shall work together to align  
24 the actions carried out under the Strategy and actions as-  
25 sociated with the energy, transportation, industrial, agri-

1 cultural, forestry, and other relevant policies of the United  
2 States so that the objectives of both the Strategy and the  
3 policies are met without compromising the climate change-  
4 related goals of the Strategy or the goals of the policies.

5 **SEC. 1016. NATIONAL OFFICE OF CLIMATE CHANGE RE-**  
6 **SPONSE OF THE EXECUTIVE OFFICE OF THE**  
7 **PRESIDENT.**

8 (a) ESTABLISHMENT.—

9 (1) IN GENERAL.—There is established, within  
10 the Executive Office of the President, the National  
11 Office of Climate Change Response.

12 (2) FOCUS.—The White House Office shall  
13 have the focus of achieving the long-term goal of  
14 stabilization of greenhouse gas concentrations while  
15 minimizing adverse short-term and long-term eco-  
16 nomic and social impacts.

17 (3) DUTIES.—Consistent with paragraph (2),  
18 the White House Office shall—

19 (A) establish policies, objectives, and prior-  
20 ities for the Strategy;

21 (B) in accordance with subsection (d), es-  
22 tablish the Interagency Task Force to serve as  
23 the primary mechanism through which the  
24 heads of Federal agencies shall assist the Direc-

1           tor of the White House Office in developing and  
2           implementing the Strategy;

3           (C) to the maximum extent practicable, en-  
4           sure that the Strategy is based on objective,  
5           quantitative analysis, drawing on the analytical  
6           capabilities of Federal and State agencies, espe-  
7           cially the Center;

8           (D) advise the President concerning nec-  
9           essary changes in organization, management,  
10          budgeting, and personnel allocation of Federal  
11          agencies involved in climate change response ac-  
12          tivities; and

13          (E) advise the President and notify a Fed-  
14          eral agency if the policies and discretionary pro-  
15          grams of the agency are not well aligned with,  
16          or are not contributing effectively to, the long-  
17          term goal of stabilization of greenhouse gas  
18          concentrations.

19          (b) DIRECTOR OF THE WHITE HOUSE OFFICE.—

20           (1) IN GENERAL.—The White House Office  
21          shall be headed by a Director, who shall report di-  
22          rectly to the President.

23           (2) APPOINTMENT.—The Director of the White  
24          House Office shall be a qualified individual ap-

1 pointed by the President, by and with the advice and  
2 consent of the Senate.

3 (3) DUTIES OF THE DIRECTOR OF THE WHITE  
4 HOUSE OFFICE.—

5 (A) STRATEGY.—In accordance with sec-  
6 tion 1015, the Director of the White House Of-  
7 fice shall coordinate the development and up-  
8 dating of the Strategy.

9 (B) INTERAGENCY TASK FORCE.—The Di-  
10 rector of the White House Office shall serve as  
11 Chairperson of the Interagency Task Force.

12 (C) ADVISORY DUTIES.—

13 (i) CLIMATE, ENERGY, TRANSPOR-  
14 TATION, INDUSTRIAL, AGRICULTURAL,  
15 BUILDING, FORESTRY, AND OTHER PRO-  
16 GRAMS.—The Director of the White House  
17 Office, using an integrated perspective con-  
18 sidering the totality of actions in the  
19 United States, shall advise the President  
20 and the heads of Federal agencies on—

21 (I) the extent to which United  
22 States energy, transportation, indus-  
23 trial, agricultural, forestry, building,  
24 and other relevant programs are capa-  
25 ble of producing progress on the long-

1 term goal of stabilization of green-  
2 house gas concentrations; and

3 (II) the extent to which proposed  
4 or newly created energy, transpor-  
5 tation, industrial, agricultural, for-  
6 estry, building, and other relevant  
7 programs positively or negatively af-  
8 fect the ability of the United States  
9 to achieve the long-term goal of sta-  
10 bilization of greenhouse gas con-  
11 centrations.

12 (ii) TAX, TRADE, AND FOREIGN POLI-  
13 CIES.—The Director of the White House  
14 Office, using an integrated perspective con-  
15 sidering the totality of actions in the  
16 United States, shall advise the President  
17 and the heads of Federal agencies on—

18 (I) the extent to which the  
19 United States tax policy, trade policy,  
20 and foreign policy are capable of pro-  
21 ducing progress on the long-term goal  
22 of stabilization of greenhouse gas con-  
23 centrations; and

24 (II) the extent to which proposed  
25 or newly created tax policy, trade pol-

1           icy, and foreign policy positively or  
2           negatively affect the ability of the  
3           United States to achieve the long-  
4           term goal of stabilization of green-  
5           house gas concentrations.

6           (iii) INTERNATIONAL TREATIES.—The  
7           Secretary of State, acting in conjunction  
8           with the Interagency Task Force and using  
9           the analytical tools available to the White  
10          House Office, shall provide to the Director  
11          of the White House Office an opinion  
12          that—

13                 (I) specifies, to the maximum ex-  
14                 tent practicable, the economic and en-  
15                 vironmental costs and benefits of any  
16                 proposed international treaties or  
17                 components of treaties that have an  
18                 influence on greenhouse gas manage-  
19                 ment; and

20                 (II) assesses the extent to which  
21                 the treaties advance the long-term  
22                 goal of stabilization of greenhouse gas  
23                 concentrations, while minimizing ad-  
24                 verse short-term and long-term eco-

1            nomic and social impacts and consid-  
2            ering other impacts.

3            (iv) CONSULTATION.—

4            (I) WITH MEMBERS OF INTER-  
5            AGENCY TASK FORCE.—To the extent  
6            practicable and appropriate, the Di-  
7            rector of the White House Office shall  
8            consult with all members of the Inter-  
9            agency Task Force and other inter-  
10           ested parties before providing advice  
11           to the President.

12           (II) WITH OTHER INTERESTED  
13           PARTIES.—The Director of the White  
14           House Office shall establish a process  
15           for obtaining the meaningful partici-  
16           pation of Federal, State, tribal, and  
17           local government agencies, nongovern-  
18           mental organizations, academia, sci-  
19           entific bodies, industry, the public,  
20           and other interested parties in the  
21           formulation of advice to be provided  
22           to the President.

23           (D) PUBLIC EDUCATION, AWARENESS,  
24           OUTREACH, AND INFORMATION-SHARING.—The  
25           Director of the White House Office, to the max-

1           imum extent practicable, shall promote public  
2           awareness, outreach, and information-sharing  
3           to further the understanding of the full range  
4           of climate change-related issues.

5           (4) ANNUAL REPORTS.—The Director of the  
6           White House Office, in consultation with the Inter-  
7           agency Task Force and other interested parties,  
8           shall prepare an annual report for submission by the  
9           President to Congress that—

10                   (A) assesses progress in implementation of  
11                   the Strategy;

12                   (B) assesses progress, in the United States  
13                   and in foreign countries, toward the long-term  
14                   goal of stabilization of greenhouse gas con-  
15                   centrations;

16                   (C) assesses progress toward meeting cli-  
17                   mate change-related international obligations;

18                   (D) makes recommendations for actions by  
19                   the Federal Government designed to close any  
20                   gap between progress-to-date and the measures  
21                   that are necessary to achieve the long-term goal  
22                   of stabilization of greenhouse gas concentra-  
23                   tions; and

24                   (E) addresses the totality of actions in the  
25                   United States that relate to the 4 key elements.

1           (5) ANALYSIS.—During development of the  
2 Strategy, preparation of the annual reports sub-  
3 mitted under paragraph (5), and provision of advice  
4 to the President and the heads of Federal agencies,  
5 the Director of the White House Office shall place  
6 significant emphasis on the use of objective, quan-  
7 titative analysis, taking into consideration any un-  
8 certainties associated with the analysis.

9           (c) STAFF.—

10           (1) IN GENERAL.—The Director of the White  
11 House Office shall employ a professional staff of not  
12 more than 25 individuals to carry out the duties of  
13 the White House Office.

14           (2) INTERGOVERNMENTAL PERSONNEL AND  
15 FELLOWSHIPS.—The Director of the White House  
16 Office may use the authority provided by the Inter-  
17 governmental Personnel Act of 1970 (42 U.S.C.  
18 4701 et seq.) and subchapter VI of chapter 33 of  
19 title 5, United States Code, and fellowships, to ob-  
20 tain staff from academia, scientific bodies, nonprofit  
21 organizations, and national laboratories, for appoint-  
22 ments of a limited term.

23           (d) INTERAGENCY TASK FORCE.—

1           (1) IN GENERAL.—The Director of the White  
2 House Office shall establish the United States Cli-  
3 mate Change Response Interagency Task Force.

4           (2) COMPOSITION.—The Interagency Task  
5 Force shall be composed of—

6           (A) the Director of the White House Of-  
7 fice, who shall serve as Chairperson;

8           (B) the Secretary of State;

9           (C) the Secretary;

10          (D) the Secretary of Commerce;

11          (E) the Secretary of the Treasury;

12          (F) the Secretary of Transportation;

13          (G) the Secretary of Agriculture;

14          (H) the Administrator of the Environ-  
15 mental Protection Agency;

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

18          (J) the United States Trade Representa-  
19 tive;

20          (K) the National Security Advisor;

21          (L) the Chairman of the Council of Eco-  
22 nomic Advisers;

23          (M) the Chairman of the Council on Envi-  
24 ronmental Quality;

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

3 (O) the Chairperson of the Subcommittee  
4 on Global Change Research (which performs  
5 the functions of the Committee on Earth and  
6 Environmental Sciences established by section  
7 102 of the Global Change Research Act of 1990  
8 (15 U.S.C. 2932)); and

9 (P) the heads of such other Federal agen-  
10 cies as the Chairperson determines should be  
11 members of the Interagency Task Force.

12 (3) STRATEGY.—

13 (A) IN GENERAL.—The Interagency Task  
14 Force shall serve as the primary forum through  
15 which the Federal agencies represented on the  
16 Interagency Task Force jointly—

17 (i) assist the Director of the White  
18 House Office in developing and updating  
19 the Strategy; and

20 (ii) assist the Director of the White  
21 House Office in preparing annual reports  
22 under subsection (b)(5).

23 (B) REQUIRED ELEMENTS.—In carrying  
24 out subparagraph (A), the Interagency Task  
25 Force shall—

1 (i) take into account the long-term  
2 goal and other requirements of the Strat-  
3 egy specified in section 1015(a);

4 (ii) consult with State, tribal, and  
5 local government agencies, nongovern-  
6 mental organizations, academia, scientific  
7 bodies, industry, the public, and other in-  
8 terested parties; and

9 (iii) build consensus around a Strat-  
10 egy that is based on strong scientific, tech-  
11 nical, and economic analyses.

12 (4) WORKING GROUPS.—The Chairperson of  
13 the Interagency Task Force may establish such topical  
14 working groups as are necessary to carry out the duties  
15 of the Interagency Task Force.

16 (e) PROVISION OF SUPPORT STAFF.—In accordance  
17 with procedures established by the Chairperson of the  
18 Interagency Task Force, the Federal agencies represented  
19 on the Interagency Task Force shall provide staff from  
20 the agencies to support information, data collection, and  
21 analyses required by the Interagency Task Force.

22 (f) HEARINGS.—On request of the Chairperson, the  
23 Interagency Task Force may hold such hearings, meet and  
24 act at such times and places, take such testimony, and

1 receive such evidence as the Interagency Task Force con-  
2 siders to be appropriate.

3 **SEC. 1017. TECHNOLOGY INNOVATION PROGRAM IMPLI-**  
4 **MENTED THROUGH THE OFFICE OF CLIMATE**  
5 **CHANGE TECHNOLOGY OF THE DEPARTMENT**  
6 **OF ENERGY.**

7 (a) ESTABLISHMENT OF OFFICE OF CLIMATE  
8 CHANGE TECHNOLOGY OF THE DEPARTMENT OF EN-  
9 ERGY.—

10 (1) IN GENERAL.—There is established, within  
11 the Department, the Office of Climate Change Tech-  
12 nology.

13 (2) DUTIES.—The Department Office shall—

14 (A) manage an energy technology research  
15 and development program that directly supports  
16 the Strategy by—

17 (i) focusing on high-risk, bold, break-  
18 through technologies that—

19 (I) have significant promise of  
20 contributing to the national climate  
21 change policy of long-term stabiliza-  
22 tion of greenhouse gas concentrations  
23 by—

24 (aa) mitigating the emis-  
25 sions of greenhouse gases;

1 (bb) removing and seques-  
2 tering greenhouse gases from  
3 emission streams; or

4 (cc) removing and seques-  
5 tering greenhouse gases from the  
6 atmosphere;

7 (II) are not being addressed sig-  
8 nificantly by other Federal programs;  
9 and

10 (III) would represent a substan-  
11 tial advance beyond technology avail-  
12 able on the date of enactment of this  
13 title;

14 (ii) forging fundamentally new re-  
15 search and development partnerships  
16 among various Department, other Federal,  
17 and State programs, particularly between  
18 basic science and energy technology pro-  
19 grams, in cases in which such partnerships  
20 have significant potential to affect the abil-  
21 ity of the United States to achieve sta-  
22 bilization of greenhouse gas concentrations  
23 at the lowest possible cost;

24 (iii) forging international research and  
25 development partnerships that are in the

1 interests of the United States and make  
2 progress on stabilization of greenhouse gas  
3 concentrations;

4 (iv) making available, through moni-  
5 toring, experimentation, and analysis, data  
6 that are essential to proving the technical  
7 and economic viability of technology cen-  
8 tral to addressing climate change; and

9 (v) transitioning research and develop-  
10 ment programs to other program offices of  
11 the Department once such a research and  
12 development program crosses the threshold  
13 of high-risk research and moves into the  
14 realm of more conventional technology de-  
15 velopment;

16 (B) prepare annual reports in accordance  
17 with subsection (b)(6);

18 (C) identify the total contribution of all  
19 Department programs to climate change re-  
20 sponse;

21 (D) provide substantial analytical support  
22 to the White House Office, particularly support  
23 in the development of the Strategy and associ-  
24 ated progress reporting; and

1           (E) advise the Secretary on climate  
2           change-related issues, including necessary  
3           changes in Department organization, manage-  
4           ment, budgeting, and personnel allocation in the  
5           programs involved in climate change response-  
6           related activities.

7           (b) DIRECTOR OF THE DEPARTMENT OFFICE.—

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

11          (2) APPOINTMENT.—The Director of the De-  
12          partment Office shall be an employee of the Federal  
13          Government who is a qualified individual appointed  
14          by the President.

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

17          (4) VACANCIES.—A vacancy in the position of  
18          the Director of the Department Office shall be filled  
19          in the same manner as the original appointment was  
20          made.

21          (5) DUTIES OF THE DIRECTOR OF THE DE-  
22          PARTMENT OFFICE.—

23                  (A) TECHNOLOGY DEVELOPMENT.—The  
24                  Director of the Department Office shall manage

1 the energy technology research and development  
2 program described in subsection (a)(2)(A).

3 (B) STRATEGY.—The Director of the De-  
4 partment Office shall support development of  
5 the Strategy through the provision of staff and  
6 analytical support.

7 (C) INTERAGENCY TASK FORCE.—Through  
8 active participation in the Interagency Task  
9 Force, the Director of the Department Office  
10 shall—

11 (i) based on the analytical capabilities  
12 of the Department Office, share analyses  
13 of alternative climate change response  
14 strategies with other members of the Inter-  
15 agency Task Force to assist all members in  
16 understanding—

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

19 (II) how the actions of the Fed-  
20 eral agencies of the members posi-  
21 tively or negatively contribute to cli-  
22 mate change solutions; and

23 (ii) determine how the energy  
24 technology research and development  
25 program described in subsection

1 (a)(2)(A) can be designed for max-  
2 imum impact on the long-term goal of  
3 stabilization of greenhouse gas con-  
4 centrations.

5 (D) TOOLS, DATA, AND CAPABILITIES.—  
6 The Director of the Department Office shall  
7 foster the development of tools, data, and capa-  
8 bilities to ensure that—

9 (i) the United States has a robust ca-  
10 pability for evaluating alternative climate  
11 change response scenarios; and

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

15 (E) ADVISORY DUTIES.—The Director of  
16 the Department Office shall advise the Sec-  
17 retary on all aspects of climate change re-  
18 sponse.

19 (6) ANNUAL REPORTS.—The Director of the  
20 Department Office shall prepare an annual report  
21 for submission by the Secretary to Congress and the  
22 White House Office that—

23 (A) assesses progress toward meeting the  
24 goals of the energy technology research and de-

1           development program described in subsection  
2           (a)(2)(A);

3           (B) assesses the activities of the Depart-  
4           ment Office;

5           (C) assesses the contributions of all energy  
6           technology research and development programs  
7           of the Department (including science programs)  
8           to the long-term goal and other requirements of  
9           the Strategy specified in section 1015(a); and

10          (D) makes recommendations for actions by  
11          the Department and other Federal agencies to  
12          address the components of technology develop-  
13          ment that are necessary to support the Strat-  
14          egy.

15          (7) ANALYSIS.—During development of the  
16          Strategy, annual reports submitted under paragraph  
17          (6), and advice to the Secretary, the Director of the  
18          Department Office shall place significant emphasis  
19          on the use of objective, quantitative analysis, taking  
20          into consideration any associated uncertainties.

21          (c) STAFF.—The Director of the Department Office  
22          shall employ a professional staff of not more than 25 indi-  
23          viduals to carry out the duties of the Department Office.

24          (d) INTERGOVERNMENTAL PERSONNEL AND FEL-  
25          LOWSHIPS.—The Department Office may use the author-

1 ity provided by the Intergovernmental Personnel Act of  
2 1970 (42 U.S.C. 4701 et seq.), subchapter VI of chapter  
3 33 of title 5, United States Code, and other Departmental  
4 personnel authorities, to obtain staff from academia, sci-  
5 entific bodies, nonprofit organizations, industry, and na-  
6 tional laboratories, for appointments of a limited term.

7 (e) RELATIONSHIP TO OTHER DEPARTMENT PRO-  
8 GRAMS.—Each project carried out by the Department Of-  
9 fice shall be—

10 (1) initiated only after consultation with 1 or  
11 more other appropriate program offices of the De-  
12 partment that support research and development in  
13 areas relating to the project;

14 (2) managed by the Department Office; and

15 (3) in the case of a project that reaches a suffi-  
16 cient level of maturity, with the concurrence of the  
17 Department Office and an appropriate office de-  
18 scribed in paragraph (1), transferred to the appro-  
19 priate office, along with the funds necessary to con-  
20 tinue the project to the point at which non-Federal  
21 funding can provide substantial support for the  
22 project.

23 (f) ANALYSIS OF STRATEGIC CLIMATE CHANGE RE-  
24 SPONSE.—

25 (1) IN GENERAL.—

1 (A) GOAL.—The Department Office shall  
2 foster the development and application of ad-  
3 vanced computational tools, data, and capabili-  
4 ties that, together with the capabilities of other  
5 federal agencies, support integrated assessment  
6 of alternative climate change response scenarios  
7 and implementation of the Strategy.

8 (B) PARTICIPATION AND SUPPORT.—  
9 Projects supported by the Department Office  
10 may include participation of, and be supported  
11 by, other Federal agencies that have a role in  
12 the development, commercialization, or transfer  
13 of energy, transportation, industrial, agricul-  
14 tural, forestry, or other climate change-related  
15 technology.

16 (2) PROGRAMS.—

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

19 (i) develop and maintain core analyt-  
20 ical competencies and complex, integrated  
21 computational modeling capabilities that,  
22 together with the capabilities of other fed-  
23 eral agencies, are necessary to support the  
24 design and implementation of the Strategy;  
25 and

1                   (ii) track United States and inter-  
2                   national progress toward the long-term  
3                   goal of stabilization of greenhouse gas con-  
4                   centrations.

5                   (B) INTERNATIONAL CARBON DIOXIDE SE-  
6                   QUESTRATION MONITORING AND DATA PRO-  
7                   GRAM.—In consultation with Federal, State,  
8                   academic, scientific, private sector, nongovern-  
9                   mental, tribal, and international carbon capture  
10                  and sequestration technology programs, the De-  
11                  partment Office shall design and carry out an  
12                  international carbon dioxide sequestration moni-  
13                  toring and data program to collect, analyze, and  
14                  make available the technical and economic data  
15                  to ascertain—

16                       (i) whether engineered sequestration  
17                       and terrestrial sequestration will be accept-  
18                       able technologies from regulatory, eco-  
19                       nomic, and international perspectives;

20                       (ii) whether carbon dioxide seques-  
21                       tered in geological formations or ocean sys-  
22                       tems is stable and has inconsequential  
23                       leakage rates on a geologic time-scale; and

1 (iii) the extent to which forest, agri-  
2 cultural, and other terrestrial systems are  
3 suitable carbon sinks.

4 (3) AREAS OF EXPERTISE.—

5 (A) IN GENERAL.—The Department Office  
6 shall develop and maintain expertise in inte-  
7 grated assessment, modeling, and related capa-  
8 bilities necessary—

9 (i) to understand the relationship be-  
10 tween natural, agricultural, industrial, en-  
11 ergy, and economic systems;

12 (ii) to design effective research and  
13 development programs; and

14 (iii) to develop and implement the  
15 Strategy.

16 (B) TECHNOLOGY TRANSFER AND DIFFU-  
17 SION.—The expertise described in clause (i)  
18 shall include knowledge of technology transfer  
19 and technology diffusion in United States mar-  
20 kets and foreign markets.

21 (4) DISSEMINATION OF INFORMATION.—The  
22 Department Office shall ensure, to the maximum ex-  
23 tent practicable, that technical and scientific knowl-  
24 edge relating to greenhouse gas emission reduction,  
25 avoidance, and sequestration is broadly disseminated

1 through publications, fellowships, and training pro-  
2 grams.

3 (5) ASSESSMENTS.—In a manner consistent  
4 with the Strategy, the Department shall conduct as-  
5 sessments of deployment of climate-friendly tech-  
6 nology.

7 (6) USE OF PRIVATE SECTOR FUNDING.—

8 (A) IN GENERAL.—The Department Office  
9 shall create an operating model that allows for  
10 collaboration, division of effort, and cost shar-  
11 ing with industry on individual climate change  
12 response projects.

13 (B) REQUIREMENTS.—Although cost shar-  
14 ing in some cases may be appropriate, the De-  
15 partment Office shall focus on long-term high-  
16 risk research and development and should not  
17 make industrial partnerships or cost sharing a  
18 requirement, if such a requirement would bias  
19 the activities of the Department Office toward  
20 incremental innovations.

21 (C) REEVALUATION ON TRANSITION.—At  
22 such time as any bold, breakthrough research  
23 and development program reaches a sufficient  
24 level of technological maturity such that the  
25 program is transitioned to a program office of

1 the Department other than the Department Of-  
2 fice, the cost-sharing requirements and criteria  
3 applicable to the program should be reeval-  
4 ated.

5 (D) PUBLICATION IN FEDERAL REG-  
6 ISTER.—Each cost-sharing agreement entered  
7 into under this subparagraph shall be published  
8 in the Federal Register.

9 **SEC. 1018. ADDITIONAL OFFICES AND ACTIVITIES.**

10 The Secretary of Agriculture, the Secretary of Trans-  
11 portation, the Secretary of Commerce, the Administrator  
12 of the Environmental Protection Agency, and the heads  
13 of other Federal agencies may establish such offices and  
14 carry out such activities, in addition to those established  
15 or authorized by this Act, as are necessary to carry out  
16 this Act.

17 **SEC. 1019. UNITED STATES CLIMATE CHANGE RESPONSE**  
18 **STRATEGY REVIEW BOARD.**

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

23 (b) MEMBERSHIP.—

24 (1) COMPOSITION.—The Review Board shall  
25 consist of 11 members who shall be appointed, not

1 later than 90 days after the date of enactment of  
2 this Act, by the President by and with the advice  
3 and consent of the Senate, from among qualified in-  
4 dividuals nominated by the National Academy of  
5 Sciences in accordance with paragraph (2).

6 (2) NOMINATIONS.—Not later than 60 days  
7 after the date of enactment of this Act, after taking  
8 into strong consideration the guidance and rec-  
9 ommendations of a broad range of scientific and  
10 technical societies that have the capability of recom-  
11 mending qualified individuals, the National Academy  
12 of Sciences shall nominate for appointment to the  
13 Review Board not fewer than 22 individuals who—

14 (A) are—

15 (i) qualified individuals; or

16 (ii) experts in a field of knowledge  
17 specified in section 1014(9)(B); and

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

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

23 (4) TERMS; VACANCIES.—

24 (A) TERMS.—

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

4 (ii) INITIAL TERMS.—

5 (I) COMMENCEMENT DATE.—The  
6 term of each member initially ap-  
7 pointed to the Review Board shall  
8 commence 120 days after the date of  
9 enactment of this title.

10 (II) TERMINATION DATE.—Of  
11 the 11 members initially appointed to  
12 the Review Board, 5 members shall be  
13 appointed for a term of 2 years and 6  
14 members shall be appointed for a  
15 term of 4 years, to be designated by  
16 the President at the time of appoint-  
17 ment.

18 (B) VACANCIES.—

19 (i) IN GENERAL.—A vacancy on the  
20 Review Board shall be filled in the manner  
21 described in this subparagraph.

22 (ii) NOMINATIONS BY THE NATIONAL  
23 ACADEMY OF SCIENCES.—Not later than  
24 60 days after the date on which a vacancy

1 commences, the National Academy of  
2 Sciences shall—

3 (I) after taking into strong con-  
4 sideration the guidance and rec-  
5 ommendations of a broad range of sci-  
6 entific and technical societies that  
7 have the capability of recommending  
8 qualified individuals, nominate, from  
9 among qualified individuals, not fewer  
10 than 2 individuals to fill the vacancy;  
11 and

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

14 (iii) SELECTION.—Not later than 30  
15 days after the date on which the nomina-  
16 tions under clause (ii) are submitted to the  
17 President, the President shall select from  
18 among the nominees an individual to fill  
19 the vacancy.

20 (iv) SENATE CONFIRMATION.—An in-  
21 dividual appointed to fill a vacancy on the  
22 Review Board shall be appointed by and  
23 with the advice and consent of the Senate.

24 (5) APPLICABILITY OF ETHICS IN GOVERNMENT  
25 ACT OF 1978.—A member of the Review Board shall

1 be deemed to be an individual subject to the Ethics  
2 in Government Act of 1978 (5 U.S.C. App.).

3 (6) CHAIRPERSON; VICE CHAIRPERSON.—The  
4 members of the Review Board shall select a Chair-  
5 person and a Vice Chairperson of the Review Board  
6 from among the members of the Review Board.

7 (c) DUTIES.—

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

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

19 (A) the adequacy of effort and the appro-  
20 priateness of focus of the totality of all public,  
21 private, and public-private sector actions of the  
22 United States with respect to the 4 key ele-  
23 ments;

24 (B) the extent to which actions of the  
25 United States, with respect to climate change,

1 complement or leverage international research  
2 and other efforts designed to manage global  
3 emissions of greenhouse gases, to further the  
4 long-term goal of stabilization of greenhouse  
5 gas concentrations;

6 (C) the funding implications of any rec-  
7 ommendations made by the Review Board; and

8 (D)(i) the effectiveness with which each  
9 Federal agency is carrying out the responsibil-  
10 ities of the Federal agency with respect to the  
11 short-term and long-term greenhouse gas man-  
12 agement goals; and

13 (ii) the adequacy of the budget of each  
14 such Federal agency to carry out those respon-  
15 sibilities.

16 (3) ADDITIONAL RECOMMENDATIONS.—

17 (A) IN GENERAL.—Subject to subpara-  
18 graph (B), the Review Board, at the request of  
19 the President or Congress, may provide rec-  
20 ommendations on additional climate change-re-  
21 lated topics.

22 (B) SECONDARY DUTY.—The provision of  
23 recommendations under subparagraph (A) shall  
24 be a secondary duty to the primary duty of the  
25 Review Board of providing independent review

1 of the Strategy and the reports under para-  
2 graphs (1) and (2).

3 (d) POWERS.—

4 (1) HEARINGS.—

5 (A) IN GENERAL.—On request of the  
6 Chairperson or a majority of the members of  
7 the Review Board, the Review Board may hold  
8 such hearings, meet and act at such times and  
9 places, take such testimony, and receive such  
10 evidence as the Review Board considers to be  
11 appropriate.

12 (B) ADMINISTRATION OF OATHS.—Any  
13 member of the Review Board may administer  
14 an oath or affirmation to any witness that ap-  
15 pears before the Review Board.

16 (2) PRODUCTION OF DOCUMENTS.—

17 (A) IN GENERAL.—On request of the  
18 Chairperson or a majority of the members of  
19 the Review Board, and subject to applicable  
20 law, the Secretary or head of a Federal agency  
21 represented on the Interagency Task Force, or  
22 a contractor of such an agency, shall provide  
23 the Review Board with such records, files, pa-  
24 pers, data, and information as are necessary to

1           respond to any inquiry of the Review Board  
2           under this Act.

3                   (B) INCLUSION OF WORK IN PROGRESS.—

4           Subject to applicable law, information obtain-  
5           able under subparagraph (A)—

6                   (i) shall not be limited to final work  
7                   products; but

8                   (ii) shall include draft work products  
9                   and documentation of work in progress.

10           (3) POSTAL SERVICES.—The Review Board  
11           may use the United States mails in the same man-  
12           ner and under the same conditions as other agencies  
13           of the Federal Government.

14           (e) COMPENSATION OF MEMBERS.—A member of the  
15           Review Board shall be compensated at a rate equal to the  
16           daily equivalent of the annual rate of basic pay prescribed  
17           for level IV of the Executive Schedule under section 5315  
18           of title 5, United States Code, for each day (including  
19           travel time) during which the member is engaged in the  
20           performance of the duties of the Review Board.

21           (f) TRAVEL EXPENSES.—A member of the Review  
22           Board shall be allowed travel expenses, including per diem  
23           in lieu of subsistence, at rates authorized for an employee  
24           of an agency under subchapter I of chapter 57 of title  
25           5, United States Code, while away from the home or reg-

1 ular place of business of the member in the performance  
2 of the duties of the Review Board.

3 (g) STAFF.—

4 (1) IN GENERAL.—The Chairperson of the Re-  
5 view Board may, without regard to the provisions of  
6 title 5, United States Code, regarding appointments  
7 in the competitive service, appoint and terminate an  
8 executive director and such other additional per-  
9 sonnel as are necessary to enable the Review Board  
10 to perform the duties of the Review Board.

11 (2) CONFIRMATION OF EXECUTIVE DIREC-  
12 TOR.—The employment of an executive director shall  
13 be subject to confirmation by the Review Board.

14 (3) COMPENSATION.—

15 (A) IN GENERAL.—Except as provided in  
16 subparagraph (B), the Chairperson of the Re-  
17 view Board may fix the compensation of the ex-  
18 ecutive director and other personnel without re-  
19 gard to the provisions of chapter 51 and sub-  
20 chapter III of chapter 53 of title 5, United  
21 States Code, relating to classification of posi-  
22 tions and General Schedule pay rates.

23 (B) MAXIMUM RATE OF PAY.—The rate of  
24 pay for the executive director and other per-  
25 sonnel shall not exceed the rate payable for

1 level V of the Executive Schedule under section  
2 5316 of title 5, United States Code.

3 (h) PROCUREMENT OF TEMPORARY AND INTERMIT-  
4 TENT SERVICES.—The Chairperson of the Review Board  
5 may procure temporary and intermittent services in ac-  
6 cordance with section 3109(b) of title 5, United States  
7 Code, at rates for individuals that do not exceed the daily  
8 equivalent of the annual rate of basic pay prescribed for  
9 level V of the Executive Schedule under section 5316 of  
10 that title.

11 **SEC. 1020. AUTHORIZATION OF APPROPRIATIONS.**

12 (a) WHITE HOUSE OFFICE.—

13 (1) USE OF AVAILABLE APPROPRIATIONS.—  
14 From funds made available to Federal agencies for  
15 the fiscal year in which this Title is enacted, the  
16 President shall provide such sums as are necessary  
17 to carry out the duties of the White House Office  
18 under this title until the date on which funds are  
19 made available under paragraph (2).

20 (2) AUTHORIZATION OF APPROPRIATIONS.—

21 There is authorized to be appropriated to the White  
22 House Office to carry out the duties of the White  
23 House Office under this Title \$5,000,000 for each of  
24 fiscal years 2003 through 2011, to remain available  
25 through September 30, 2011.

1 (b) DEPARTMENT OFFICE.—

2 (1) USE OF AVAILABLE APPROPRIATIONS.—

3 From funds made available to Federal agencies for  
4 the fiscal year in which this title is enacted, the  
5 President shall provide such sums as are necessary  
6 to carry out the duties of the Department Office  
7 under this Title until the date on which funds are  
8 made available under paragraph (2).

9 (2) AUTHORIZATION OF APPROPRIATIONS.—

10 There is authorized to be appropriated to the De-  
11 partment Office to carry out the duties of the De-  
12 partment Office under this title \$4,750,000,000 for  
13 the period of fiscal years 2003 through 2011, to re-  
14 main available through September 30, 2011.

15 (c) REVIEW BOARD.—

16 (1) USE OF AVAILABLE APPROPRIATIONS.—

17 From funds made available to Federal agencies for  
18 the fiscal year in which this title is enacted, the  
19 President shall provide such sums as are necessary  
20 to carry out the duties of the Review Board under  
21 this title until the date on which funds are made  
22 available under paragraph (2).

23 (2) AUTHORIZATION OF APPROPRIATIONS.—

24 There is authorized to be appropriated to the Review  
25 Board to carry out the duties of the Review Board

1 under this title \$3,000,000 for each of fiscal years  
2 2003 through 2011, to remain available until ex-  
3 pended.

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

7 (1) amounts made available to carry out the  
8 United States Global Change Research Program  
9 under the Global Change Research Act of 1990 (15  
10 U.S.C. 2921 et seq.); and

11 (2) amounts made available under other provi-  
12 sions of law for energy research and development.

## 13 **Subtitle C—Science and** 14 **Technology Policy**

### 15 **SEC. 1031. GLOBAL CLIMATE CHANGE IN THE OFFICE OF** 16 **SCIENCE AND TECHNOLOGY POLICY.**

17 Section 101(b) of the National Science and Tech-  
18 nology Policy, Organization, and Priorities Act of 1976  
19 (42 U.S.C. 6601(b)) is amended—

20 (1) by redesignating paragraphs (7) through  
21 (13) as paragraphs (8) through (14), respectively;  
22 and

23 (2) by inserting after paragraph (6) the fol-  
24 lowing:

1           “(6) improving efforts to understand, assess,  
2           predict, mitigate, and respond to global climate  
3           change;”.

4 **SEC. 1032. ESTABLISHMENT OF ASSOCIATE DIRECTOR FOR**  
5 **GLOBAL CLIMATE CHANGE.**

6           Section 203 of the National Science and Technology  
7 Policy, Organization, and Priorities Act of 1976 (42  
8 U.S.C. 6612) is amended—

9           (1) by striking “four” in the second sentence  
10          and inserting “five”; and

11          (2) by striking “title.” in the second sentence  
12          and inserting “title, one of whom shall be respon-  
13          sible for global climate change science and tech-  
14          nology under the Office of Science and Technology  
15          Policy.”.

16 **Subtitle D—Miscellaneous**  
17 **Provisions**

18 **SEC. 1041. ADDITIONAL INFORMATION FOR REGULATORY**  
19 **REVIEW.**

20           In each case that an agency prepares and submits  
21 a Statement of Energy Effects pursuant to Executive  
22 Order 13211 of May 18, 2001 (relating to actions con-  
23 cerning regulations that significantly affect energy supply,  
24 distribution, or use), or as part of compliance with Execu-  
25 tive Order 12866 of September 30, 1993 (relating to regu-

1 latory planning and review) or its successor, the agency  
2 shall also submit an estimate of the change in net annual  
3 greenhouse gas emissions resulting from the proposed sig-  
4 nificant energy action. In the case in which there is an  
5 increase in net annual greenhouse gas emissions as a re-  
6 sult of the proposed significant energy action, the agency  
7 shall indicate what policies or measures will be undertaken  
8 to mitigate or offset the increased emissions.

9 **SEC. 1042. GREENHOUSE GAS EMISSIONS FROM FEDERAL**  
10 **FACILITIES.**

11 (a) **METHODOLOGY.**—

12 (1) **IN GENERAL.**—Not later than one year  
13 after the date of enactment of this section, the Sec-  
14 retary of Energy, Secretary of Agriculture, Secretary  
15 of Commerce, and Administrator of the Environ-  
16 mental Protection Agency shall publish a jointly de-  
17 veloped methodology for preparing estimates of an-  
18 nual net greenhouse gas emissions from all Federally  
19 owned, leased, or operated facilities and emission  
20 sources, including mobile sources.

21 (2) **INDIRECT AND OTHER EMISSIONS.**—The  
22 methodology under paragraph (1) shall include emis-  
23 sions resulting from any Federal procurement action  
24 with an annual Federal expenditure of greater than  
25 \$100 million, indirect emissions associated with Fed-

1       eral electricity consumption, and other emissions re-  
2       sulting from Federal actions that the heads of the  
3       agencies under paragraph (1) may jointly decide to  
4       include in the estimates.

5       (b) PUBLICATION.—Not later than 18 months after  
6       the date of enactment of this section, and annually there-  
7       after, the Secretary of Energy shall publish an estimate  
8       of annual net greenhouse gas emissions from all Federally  
9       owned, leased, or operated facilities and emission sources,  
10      using the methodology published under subsection (a).

## 11       **TITLE XI—GREENHOUSE GAS** 12       **DATABASE**

### 13      **SEC. 1101. DEFINITIONS.**

14      In this title:

15           (1) CONSENSUS.—The term “consensus” has  
16      the meaning given that term in section 562(2) of  
17      title 5, United States Code.

18           (2) DATABASE.—The term “database” means  
19      the National Greenhouse Gas Database established  
20      under section 1102.

21           (3) ENTITY.—The term “entity” means—

22                   (A) a person located in the United States;

23                   or

24                   (B) a public or private entity, to the extent

25                   that the entity operates in the United States.

1           (4) FACILITY.—The term “facility” means all  
2 buildings, structures, or installations located on any  
3 one or more of contiguous or adjacent property or  
4 properties under common control of the same entity.

5           (5) GREENHOUSE GAS.—The term “greenhouse  
6 gas” means—

7                   (A) carbon dioxide;

8                   (B) methane;

9                   (C) nitrous oxide;

10                  (D) hydrofluorocarbons;

11                  (E) perfluorocarbons; and

12                  (F) sulfur hexafluoride.

13           (6) DIRECT EMISSIONS.—The term “direct  
14 emissions” means greenhouse gas emissions from a  
15 source that is owned or controlled by an entity.

16           (7) INDIRECT EMISSIONS.—The term “indirect  
17 emissions” means greenhouse gas emissions that are  
18 a consequence of the activities of an entity but that  
19 are emitted from sources owned or controlled by an-  
20 other entity.

21           (8) CARBON SEQUESTRATION.—The term “se-  
22 questration” means the capture, long-term separa-  
23 tion, isolation, or removal of greenhouse gases from  
24 the atmosphere, including through a biological or

1 geologic method such as reforestation or an under-  
2 ground reservoir.

3 (9) INTERAGENCY TASK FORCE.—The term  
4 “Interagency Task Force” means the Interagency  
5 Task Force on Greenhouse Gas Database estab-  
6 lished under section 1103.

7 (10) SECRETARY.—The term “Secretary”  
8 means the Secretary of Commerce.

9 (11) NEGOTIATED RULEMAKING.—The term  
10 “negotiated rulemaking” has the meaning given that  
11 term in section 562(6) of title 5, United States  
12 Code.

13 (12) NEGOTIATED RULEMAKING COMMITTEE.—  
14 The term “negotiated rulemaking committee” has  
15 the meaning given that term in section 562(7) of  
16 title 5, United States Code.

17 **SEC. 1102. NATIONAL GREENHOUSE GAS DATABASE.**

18 (a) ESTABLISHMENT.—The Secretary, in consulta-  
19 tion with the Interagency Task Force, shall establish, by  
20 rule, a database to be known as the National Greenhouse  
21 Gas Database to collect, verify, and analyze information  
22 on—

23 (1) greenhouse gas emissions by entities located  
24 in the United States; and

1           (2) greenhouse gas emission reductions by enti-  
2           ties based in the United States.

3           (b) DATABASE COMPONENTS.—The database shall  
4 consist of an inventory of greenhouse gas emissions and  
5 a registry of greenhouse gas emission reductions.

6           (c) NEGOTIATED RULEMAKING.—

7           (1) STAKEHOLDER INVOLVEMENT IN DESIGN-  
8           ING DATABASE REQUIRED.—The Secretary shall  
9 carry out the responsibilities under this section  
10 through the use of a negotiated rulemaking under  
11 subchapter III of title 5, United States Code.

12           (2) USE OF CONSENSUS.—The Secretary shall  
13 use the consensus of the negotiated rulemaking com-  
14 mittee with respect to the database as the basis for  
15 the rule proposed for notice and comment.

16           (3) DEADLINE.—If, on the date that is 1 year  
17 after the date of publication of the notice under sec-  
18 tion 564(a) of title 5, United States Code, with re-  
19 gard to the negotiated rulemaking, the negotiated  
20 rulemaking committee has not completed its work,  
21 the Secretary, in consultation with the Interagency  
22 Task Force, shall publish a notice of proposed rule-  
23 making and issue a final rule without regard to this  
24 subsection.

25           (d) REQUIRED ELEMENTS OF RULE.—

1           (1) MANDATORY REPORTING.—(A) The rule  
2           under subsection (a) shall require each entity that  
3           exceeds the greenhouse gas emissions threshold in  
4           paragraph (2) to annually report to the Secretary,  
5           for inclusion in the inventory component of the data-  
6           base, the entity-wide emissions of greenhouse gases  
7           in the previous calendar year.

8           (B) Each report submitted pursuant to the rule  
9           shall include:

10           (i) direct emissions from stationary  
11           sources;

12           (ii) direct emissions from mobile sources  
13           owned or operated by a covered entity;

14           (iii) direct emissions from any land use ac-  
15           tivities that release significant quantities of  
16           greenhouse gases;

17           (iv) indirect emissions from outsourced ac-  
18           tivities, contract manufacturing, wastes trans-  
19           ferred from the control of an entity, and other  
20           relevant instances, as determined to be prac-  
21           ticable under the rule; and,

22           (v) indirect emissions from electricity,  
23           heat, and steam, purchased from another enti-  
24           ty, as determined to be practicable under the  
25           rule.

1           (2) THRESHOLD FOR REPORTING.—An entity  
2 shall not be required to make a report under para-  
3 graph (1) unless the total greenhouse gas emissions  
4 of the entity in the calendar year for reporting ex-  
5 ceeds 1,000 metric tons of carbon dioxide equivalent,  
6 or a greater level as determined by the rule.

7           (3) METHOD OF REPORTING.—The rule under  
8 subsection (a) shall require that entity-wide emis-  
9 sions shall be reported at the facility level.

10          (4) VERIFICATION.—The rule under subsection  
11 (a) shall provide for objective and independent as-  
12 sessment of whether a report submitted by an entity  
13 accurately reflects the greenhouse gas emissions or  
14 emission reductions of the entity.

15          (5) DATA QUALITY.—The rule under subsection  
16 (a) shall establish procedures and protocols needed  
17 to—

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

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

23               (C) provide for adjustment to data by re-  
24 porting entities that have had a significant or-  
25 ganizational change (including mergers, acquisi-

1           tions, and divestiture), in order to maintain  
2           comparability among data in the database over  
3           time;

4           (D) provide for adjustments to reflect new  
5           technologies or methods for measuring or calcu-  
6           lating greenhouse gas emissions; and

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

11          (6) AVAILABILITY OF DATA.—The rule under  
12          subsection (a) shall require that information in the  
13          database be published and made available in elec-  
14          tronic format on the Internet, except in cases where  
15          the chair determines that publishing or making  
16          available the information would reveal a trade secret  
17          or disclose information vital to national security.

18          (7) DATA INFRASTRUCTURE.—The rule under  
19          subsection (a) shall ensure that the database estab-  
20          lished by this Act shall utilize and be integrated with  
21          existing data collection and reporting systems to the  
22          maximum extent possible and avoid duplication of  
23          such systems.

24          (8) RULE REVISION.—The Secretary, in con-  
25          sultation with the Interagency Task Force, shall re-

1 view and revise the rule promulgated under sub-  
2 section (a) every three years, to ensure that it is ef-  
3 fective in covering as many sources of greenhouse  
4 gases as is practicable.

5 (e) ADDITIONAL ISSUES TO BE CONSIDERED.—In  
6 formulating its consensus with respect to the rule under  
7 subsection (a), the negotiated rulemaking committee shall  
8 consider the full range of additional issues involved in es-  
9 tablishing an effective database, including the following:

10 (1) INDIRECT EMISSIONS.—The inclusion in the  
11 database of information on indirect greenhouse gas  
12 emissions, including types of emissions to be cov-  
13 ered, types and levels of aggregation of emissions  
14 data by a reporting entity, and thresholds for report-  
15 ing.

16 (2) UNITS FOR REPORTING.—The appropriate  
17 units for reporting each greenhouse gas, and wheth-  
18 er to require reporting of emission efficiency rates  
19 (including emissions per kilowatt-hour for electricity  
20 generators) in addition to actual emissions of green-  
21 house gases.

22 (3) REPORTING OF EMISSION BY FEDERAL FA-  
23 CILITIES.—The inclusion in the database of emis-  
24 sions and emission reductions from facilities owned  
25 or operated by the United States.

1           (4) EMISSION REDUCTIONS AND SEQUESTRA-  
2           TION.—The inclusion in the registry portion of the  
3           database, on a voluntary basis, of information on  
4           greenhouse gas emissions that were reduced or  
5           avoided, and on carbon that was sequestered,  
6           through any measures, including—

7                   (A) agricultural activities, including man-  
8                   agement of crop lands, grazing lands, grass-  
9                   lands, and dry lands;

10                   (B) forestry activities that increase carbon  
11                   sequestration stocks;

12                   (C) improvement in efficiency of energy  
13                   production, including use of combined heat and  
14                   power;

15                   (D) fuel switching or use of renewable  
16                   sources in energy production;

17                   (E) improvements in end-use energy effi-  
18                   ciency, including improved vehicle fuel effi-  
19                   ciency;

20                   (F) carbon sequestration for long-term  
21                   storage; and

22                   (G) methane recovery.

23           (5) INCLUSION OF INTERNATIONAL EMISSION  
24           REDUCTIONS.—The inclusion in the registry portion  
25           of the database of emission reductions and seques-

1 tration projects carried out outside the United  
2 States by entities based in the United States.

3 (6) COORDINATION WITH OTHER DATABASES  
4 AND ENTITIES.—

5 (A) coordination and standardization be-  
6 tween the database and other greenhouse gas  
7 registries at the State or regional level;

8 (B) approaches to reconciling data and re-  
9 ports under section 1605(b) of the Energy Pol-  
10 icy Act of 1992 with the information in the  
11 database, including any verification that may be  
12 required; and

13 (C) use and integration of data and re-  
14 ports prepared by the Environmental Protection  
15 Agency under sections 103 and 821 of the  
16 Clean Air Act, and related programs.

17 (7) PARTICIPATION BY FARMERS AND SMALL  
18 BUSINESS.—Measures to facilitate the participation  
19 of farmers and small business in voluntary reporting  
20 of emission reductions to the registry.

21 (8) NON-FEDERAL OPERATION OF THE DATA-  
22 BASE.—The reliability, cost-effectiveness and overall  
23 potential for the operation of the database by a non-  
24 profit organization.

1 (f) ENFORCEMENT.—The Attorney General may, at  
2 the request of the Secretary, bring a civil action in United  
3 States District Court against an entity that fails to comply  
4 with a rule promulgated under this section, to impose a  
5 civil penalty of not more than \$25,000 for each day that  
6 the failure to comply continues.

7 (g) ANNUAL REPORT.—The Secretary shall publish  
8 an annual report that—

9 (1) describes the total greenhouse gas emissions  
10 and emission reductions reported to the database;  
11 and

12 (2) provides entity-by-entity and sector-by-sec-  
13 tor analyses of the emissions and emission reduc-  
14 tions reported.

15 **SEC. 1103. INTERAGENCY TASK FORCE ON GREENHOUSE**  
16 **GAS DATABASE.**

17 (a) ESTABLISHMENT AND MEMBERSHIP.—There is  
18 established an Interagency Task Force on Greenhouse Gas  
19 Database, which shall be composed of—

- 20 (1) the Secretary of Energy;  
21 (2) the Secretary of Agriculture;  
22 (3) the Secretary of the Interior;  
23 (4) the Secretary of Commerce;  
24 (5) the Secretary of Transportation;

1           (6) the Administrator of the Environmental  
2 Protection Agency;

3           (7) the Director of the Office of Science and  
4 Technology Policy in the Executive Office of the  
5 President;

6           (8) the Director of the National Office of Cli-  
7 mate Change Response in the Executive Office of  
8 the President; and

9           (9) the Chairman of the Council on Environ-  
10 mental Quality.

11 (b) CHAIR APPOINTMENT AND TERM.—

12           (1) INITIAL APPOINTMENT.—Not later than 60  
13 days after the date of enactment of this title, the  
14 President shall designate a chair of the Interagency  
15 Task Force, who shall serve as Chair for not more  
16 than 2 consecutive years, from among the Secretary  
17 of Energy and the Administrator of the Environ-  
18 mental Protection Agency.

19           (2) SUBSEQUENT APPOINTMENTS.—The posi-  
20 tion of Chair shall alternate between the Secretary  
21 of Energy and the Administrator of the Environ-  
22 mental Protection Agency.

23 (c) DUTIES.—The Interagency Task Force shall reg-  
24 ularly advise the Secretary and the Chair on the design,  
25 operation, and improvement of the Database.

1 **SEC. 1104. MEASUREMENT AND VERIFICATION.**

2 (a) IN GENERAL.—The Chair, in cooperation with  
3 the National Institute of Standards and Technology, shall  
4 develop and promulgate—

5 (1) technologies and methods for measurement  
6 and verification of greenhouse gas emissions and  
7 emission reductions; and

8 (2) accounting and reporting standards for re-  
9 ports under section 1102.

10 (b) BEST PRACTICES.—The technologies, methods,  
11 and standards developed under paragraph (1) shall con-  
12 form, to the maximum extent practicable, to the best prac-  
13 tices that have the greatest support of experts in the field.

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  
26 that supports basic energy research and provides

1 mechanisms to develop, demonstrate, and deploy new  
2 energy technologies in partnership with industry.

3 (2) An aggressive national energy research, de-  
4 velopment, demonstration, and technology deploy-  
5 ment program is an integral part of a national cli-  
6 mate change strategy, because it can reduce—

7 (A) United States energy intensity by 1.9  
8 percent per year from 1999 to 2020;

9 (B) United States energy consumption in  
10 2020 by 8 quadrillion Btu from otherwise ex-  
11 pected levels; and

12 (C) United States carbon dioxide emissions  
13 from expected levels by 166 million metric tons  
14 in carbon equivalent in 2020.

15 (3) An aggressive national energy research, de-  
16 velopment, demonstration, and technology deploy-  
17 ment program can help maintain domestic United  
18 States production of energy, increase United States  
19 hydrocarbon reserves by 14 percent, and lower nat-  
20 ural gas prices by 20 percent, compared to estimates  
21 for 2020.

22 (4) An aggressive national energy research, de-  
23 velopment, demonstration, and technology deploy-  
24 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 per-  
10          cent:

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; and

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.

18           (4) ENERGY EFFICIENT DISTRIBUTED GENERA-  
19           TION.—The goals of the energy efficient on-site gen-  
20           eration program shall be to help remove environ-  
21           mental and regulatory barriers to on-site, or distrib-  
22           uted, generation and combined heat and power by  
23           developing technologies by 2015 that achieve—

24                   (A) electricity generating efficiencies great-  
25                   er than 40 percent for on-site generation tech-

1 nologies based upon natural gas, including fuel  
2 cells, microturbines, reciprocating engines and  
3 industrial gas turbines;

4 (B) combined heat and power total (elec-  
5 tric and thermal) efficiencies of more than 85  
6 percent;

7 (C) fuel flexibility to include hydrogen,  
8 biofuels and natural gas;

9 (D) near zero emissions of pollutants that  
10 form smog and acid rain;

11 (E) reduction of carbon dioxide emissions  
12 by at least 40 percent;

13 (F) packaged system integration at end  
14 user facilities providing complete services in  
15 heating, cooling, electricity and air quality; and

16 (G) increased reliability for the consumer  
17 and greater stability for the national electricity  
18 grid.

19 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to the Secretary for car-  
21 rying out research, development, demonstration, and tech-  
22 nology deployment activities under this subtitle—

23 (1) \$700,000,000 for fiscal year 2003;

24 (2) \$784,000,000 for fiscal year 2004;

25 (3) \$878,000,000 for fiscal year 2005; and

1 (4) \$983,000,000 for fiscal year 2006.

2 (d) LIMITATION ON USE OF FUNDS.—None of the  
3 funds authorized to be appropriated in subsection (c) may  
4 be used for the following programs of the Department—

5 (1) Weatherization Assistance Program;

6 (2) State Energy Program; or

7 (3) Federal Energy Management Program.

8 **SEC. 1212. ENERGY EFFICIENCY SCIENCE INITIATIVE.**

9 (a) ESTABLISHMENT AND AUTHORIZATION OF AP-  
10 PROPRIATIONS.—From amounts authorized under section  
11 1211(c), there are authorized to be appropriated not more  
12 than \$50,000,000 in any fiscal year, for an Energy Effi-  
13 ciency Science Initiative to be managed by the Assistant  
14 Secretary in the Department with responsibility for energy  
15 conservation under section 203(a)(9) of the Department  
16 of Energy Organization Act (42 U.S.C. 7133(a)(9)), in  
17 consultation with the Director of the Office of Science, for  
18 grants to be competitively awarded and subject to peer re-  
19 view for research relating to energy efficiency.

20 (b) REPORT.—The Secretary of Energy shall submit  
21 to the Committee on Science and the Committee on Ap-  
22 propriations of the United States House of Representa-  
23 tives, and to the Committee on Energy and Natural Re-  
24 sources and the Committee on Appropriations of the  
25 United States Senate, an annual report on the activities

1 of the Energy Efficiency Science Initiative, including a de-  
2 scription of the process used to award the funds and an  
3 explanation of how the research relates to energy effi-  
4 ciency.

5 **SEC. 1213. NEXT GENERATION LIGHTING INITIATIVE.**

6 (a) ESTABLISHMENT.—There is established in the  
7 Department a Next Generation Lighting Initiative to re-  
8 search, develop, and conduct demonstration activities on  
9 advanced solid-state lighting technologies based on white  
10 light emitting diodes.

11 (b) OBJECTIVES.—

12 (1) IN GENERAL.—The objectives of the initia-  
13 tive shall be to develop, by 2011, advanced solid-  
14 state lighting technologies based on white light emit-  
15 ting diodes that, compared to incandescent and fluo-  
16 rescent lighting technologies, are—

17 (A) longer lasting;

18 (B) more energy-efficient; and

19 (C) cost-competitive.

20 (2) INORGANIC WHITE LIGHT EMITTING  
21 DIODE.—The objective of the initiative with respect  
22 to inorganic white light emitting diodes shall be to  
23 develop an inorganic white light emitting diode that  
24 has an efficiency of 160 lumens per watt and a 10-  
25 year lifetime.

1           (3) ORGANIC WHITE LIGHT EMITTING DIODE.—

2           The objective of the initiative with respect to organic  
3           white light emitting diodes shall be to develop an or-  
4           ganic white light emitting diode with an efficiency of  
5           100 lumens per watt with a 5-year lifetime that—

6                   (A) illuminates over a full color spectrum;

7                   (B) covers large areas over flexible sur-  
8           faces; and

9                   (C) does not contain harmful pollutants  
10           typical of fluorescent lamps such as mercury.

11       (c) CONSORTIUM.—

12           (1) IN GENERAL.—The Secretary shall initiate  
13           and manage basic and manufacturing-related re-  
14           search on advanced solid-state lighting technologies  
15           based on white light emitting diodes for the initia-  
16           tive, in cooperation with the Next Generation Light-  
17           ing Initiative Consortium.

18           (2) COMPOSITION.—The consortium shall be  
19           composed of firms, national laboratories, and other  
20           entities so that the consortium is representative of  
21           the United States solid state lighting research, devel-  
22           opment, and manufacturing expertise as a whole.

23           (3) FUNDING.—The consortium shall be funded  
24           by—

25                   (A) participation fees; and

1 (B) grants provided under subsection  
2 (e)(1).

3 (4) ELIGIBILITY.—To be eligible to receive a  
4 grant under subsection (e)(1), the consortium  
5 shall—

6 (A) enter into a consortium participation  
7 agreement that—

8 (i) is agreed to by all participants;  
9 and

10 (ii) describes the responsibilities of  
11 participants, participation fees, and the  
12 scope of research activities; and

13 (B) develop an annual program plan.

14 (5) INTELLECTUAL PROPERTY.—Participants in  
15 the consortium shall have royalty-free nonexclusive  
16 rights to use intellectual property derived from con-  
17 sortium research conducted under subsection (e)(1).

18 (d) PLANNING BOARD.—

19 (1) IN GENERAL.—Not later than 90 days after  
20 the establishment of the consortium, the Secretary  
21 shall establish and appoint the members of a plan-  
22 ning board, to be known as the “Next Generation  
23 Lighting Initiative Planning Board”, to assist the  
24 Secretary in carrying out this section.

1           (2) COMPOSITION.—The planning board shall  
2 be composed of—

3           (A) 4 members from universities, national  
4 laboratories, and other individuals with exper-  
5 tise in advanced solid-state lighting and tech-  
6 nologies based on white light emitting diodes;  
7 and

8           (B) 3 members from a list of not less than  
9 6 nominees from industry submitted by the con-  
10 sortium.

11          (3) STUDY.—

12           (A) IN GENERAL.—Not later than 90 days  
13 after the date on which the Secretary appoints  
14 members to the planning board, the planning  
15 board shall complete a study on strategies for  
16 the development and implementation of ad-  
17 vanced solid-state lighting technologies based on  
18 white light emitting diodes.

19           (B) REQUIREMENTS.—The study shall de-  
20 velop a comprehensive strategy to implement,  
21 through the initiative, the use of white light  
22 emitting diodes to increase energy efficiency  
23 and enhance United States competitiveness.

24           (C) IMPLEMENTATION.—As soon as prac-  
25 ticable after the study is submitted to the Sec-

1           retary, the Secretary shall implement the initia-  
2           tive in accordance with the recommendations of  
3           the planning board.

4           (4) TERMINATION.—The planning board shall  
5           terminate upon completion of the study under para-  
6           graph (3).

7           (e) GRANTS.—

8           (1) FUNDAMENTAL RESEARCH.—The Secretary,  
9           through the consortium, shall make grants to con-  
10          duct basic and manufacturing-related research re-  
11          lated to advanced solid-state lighting technologies  
12          based on white light emitting diode technologies.

13          (2) TECHNOLOGY DEVELOPMENT AND DEM-  
14          ONSTRATION.—The Secretary shall enter into  
15          grants, contracts, and cooperative agreements to  
16          conduct or promote technology research, develop-  
17          ment, or demonstration activities. In providing fund-  
18          ing under this paragraph, the Secretary shall give  
19          preference to participants in the consortium.

20          (3) CONTINUING ASSESSMENT.—The consor-  
21          tium, in collaboration with the Secretary, shall for-  
22          mulate annual operating and performance objectives,  
23          develop technology roadmaps, and recommend re-  
24          search and development priorities for the initiative.  
25          The Secretary may also establish or utilize advisory

1 committees, or enter into appropriate arrangements  
2 with the National Academy of Sciences, to conduct  
3 periodic reviews of the initiative. The Secretary shall  
4 consider the results of such assessment and review  
5 activities in making funding decisions under para-  
6 graphs (1) and (2) of this subsection.

7 (4) TECHNICAL ASSISTANCE.—The National  
8 Laboratories shall cooperate with and provide tech-  
9 nical assistance to persons carrying out projects  
10 under the initiative.

11 (5) AUDITS.—

12 (A) IN GENERAL.—The Secretary shall re-  
13 tain an independent, commercial auditor to de-  
14 termine the extent to which funds made avail-  
15 able under this section have been expended in  
16 a manner that is consistent with the objectives  
17 under subsection (b) and, in the case of funds  
18 made available to the consortium, the annual  
19 program plan of the consortium under sub-  
20 section (c)(4)(B).

21 (B) REPORTS.—The auditor shall submit  
22 to Congress, the Secretary, and the Comptroller  
23 General of the United States an annual report  
24 containing the results of the audit.

1           (6) APPLICABLE LAW.—Grants, contracts, and  
2           cooperative agreements under this section shall not  
3           be subject to the Federal Acquisition Regulation.

4           (f) PROTECTION OF INFORMATION.—Information ob-  
5           tained by the Federal Government on a confidential basis  
6           under this section shall be considered to constitute trade  
7           secrets and commercial or financial information obtained  
8           from a person and privileged or confidential under section  
9           552(b)(4) of title 5, United States Code.

10          (g) AUTHORIZATION OF APPROPRIATIONS.—In addi-  
11          tion to amounts authorized under section 1211(c), there  
12          are authorized to be appropriated for activities under this  
13          section \$50,000,000 for each of fiscal years 2003 through  
14          2011.

15          (h) DEFINITIONS.—In this section:

16           (1) ADVANCED SOLID-STATE LIGHTING.—The  
17           term “advanced solid-state lighting” means a  
18           semiconducting device package and delivery system  
19           that produces white light using externally applied  
20           voltage.

21           (2) CONSORTIUM.—The term “consortium”  
22           means the Next Generation Lighting Initiative Con-  
23           sortium under subsection (c).

1           (3) INITIATIVE.—The term “initiative” means  
2           the Next Generation Lighting Initiative established  
3           under subsection (a).

4           (4) INORGANIC WHITE LIGHT EMITTING  
5           DIODE.—The term “inorganic white light emitting  
6           diode” means an inorganic semiconducting package  
7           that produces white light using externally applied  
8           voltage.

9           (5) ORGANIC WHITE LIGHT EMITTING DIODE.—  
10          The term “organic white light emitting diode”  
11          means an organic semiconducting compound that  
12          produces white light using externally applied voltage.

13          (6) WHITE LIGHT EMITTING DIODE.—The term  
14          “white light emitting diode” means—

15                 (A) an inorganic white light emitting  
16                 diode; or

17                 (B) an organic white light emitting diode.

18 **SEC. 1214. RAILROAD EFFICIENCY.**

19          (a) ESTABLISHMENT.—The Secretary shall, in co-  
20          operation with the Secretaries of Transportation and De-  
21          fense, and the Administrator of the Environmental Protec-  
22          tion Agency, establish a public-private research partner-  
23          ship involving the federal government, railroad carriers,  
24          locomotive manufacturers, and the Association of Amer-  
25          ican Railroads. The goal of the initiative shall include de-

1 veloping and demonstrating locomotive technologies that  
2 increase fuel economy, reduce emissions, improve safety,  
3 and lower costs.

4 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
5 are authorized to be appropriated to carry out the require-  
6 ments of this section \$60,000,000 for fiscal year 2003 and  
7 \$70,000,000 for fiscal year 2004.

## 8 **Subtitle B—Renewable Energy**

### 9 **SEC. 1221. ENHANCED RENEWABLE ENERGY RESEARCH** 10 **AND DEVELOPMENT.**

11 (a) PROGRAM DIRECTION.—The Secretary shall con-  
12 duct balanced energy research, development, demonstra-  
13 tion, and technology deployment programs to enhance the  
14 use of renewable energy.

15 (b) PROGRAM GOALS.—

16 (1) WIND POWER.—The goals of the wind  
17 power program shall be to develop, in partnership  
18 with industry, a variety of advanced wind turbine  
19 designs and manufacturing technologies that are  
20 cost-competitive with fossil-fuel generated electricity,  
21 with a focus on developing advanced low wind speed  
22 technologies that, by 2007, will enable the expanding  
23 utilization of widespread class 3 and 4 winds.

24 (2) PHOTOVOLTAICS.—The goal of the photo-  
25 voltaic program shall be to develop, in partnership

1 with industry, total photovoltaic systems with in-  
2 stalled costs of \$4000 per peak kilowatt by 2005  
3 and \$2000 per peak kilowatt by 2015.

4 (3) SOLAR THERMAL ELECTRIC SYSTEMS.—The  
5 goal of the solar thermal electric systems program  
6 shall be to develop, in partnership with industry,  
7 solar power technologies (including baseload solar  
8 power) that are competitive with fossil-fuel gen-  
9 erated electricity by 2015, by combining high-effi-  
10 ciency and high-temperature receivers with advanced  
11 thermal storage and power cycles.

12 (4) BIOMASS-BASED POWER SYSTEMS.—The  
13 goal of the biomass program shall be to develop, in  
14 partnership with industry, integrated power-gener-  
15 ating systems, advanced conversion, and feedstock  
16 technologies capable of producing electric power that  
17 is cost-competitive with fossil-fuel generated elec-  
18 tricity by 2010, together with the production of  
19 fuels, chemicals, and other products under para-  
20 graph (6).

21 (5) GEOTHERMAL ENERGY.—The goal of the  
22 geothermal program shall be to develop, in partner-  
23 ship with industry, technologies and processes based  
24 on advanced hydrothermal systems and advanced

1 heat and power systems, including geothermal heat  
2 pump technology, with a specific focus on—

3 (A) improving exploration and character-  
4 ization technology to increase the probability of  
5 drilling successful wells from 20 percent to 40  
6 percent by 2006;

7 (B) reducing the cost of drilling by 2008  
8 to an average cost of \$150 per foot; and

9 (C) developing enhanced geothermal sys-  
10 tems technology with the potential to double the  
11 useable geothermal resource base.

12 (6) BIOFUELS.—The goal of the biofuels pro-  
13 gram shall be to develop, in partnership with indus-  
14 try, advanced biochemical and thermochemical con-  
15 version technologies capable of making liquid and  
16 gaseous fuels from cellulosic feedstocks, that are  
17 price-competitive with gasoline or diesel, in either in-  
18 ternal combustion engines or fuel cell vehicles, by  
19 2010.

20 (7) HYDROGEN-BASED ENERGY SYSTEMS.—The  
21 goals of the hydrogen program shall be to support  
22 research and development on technologies for pro-  
23 duction, storage, and use of hydrogen, including fuel  
24 cells and, specifically, fuel-cell vehicle development  
25 activities under section 1211.

1           (8) HYDROPOWER.—The goal of the hydro-  
2 power program shall be to develop, in partnership  
3 with industry, a new generation of turbine tech-  
4 nologies that are less damaging to fish and aquatic  
5 ecosystems.

6           (9) ELECTRIC ENERGY SYSTEMS AND STOR-  
7 AGE.—The goals of the electric energy and storage  
8 program shall be to develop, in partnership with  
9 industry—

10           (A) generators and transmission, distribu-  
11 tion, and storage systems that combine high ca-  
12 pacity with high efficiency;

13           (B) technologies to interconnect distributed  
14 energy resources with electric power systems,  
15 comply with any national interconnection stand-  
16 ards, have a minimum 10-year useful life;

17           (C) advanced technologies to increase the  
18 average efficiency of electric transmission facili-  
19 ties in rural and remote areas, giving priority  
20 for demonstrations to advanced transmission  
21 technologies that are being or have been field  
22 tested;

23           (D) the use of new transmission tech-  
24 nologies, including composite conductor mate-  
25 rials, advanced protection devices, controllers,

1 and other cost-effective methods and tech-  
2 nologies;

3 (E) the use of superconducting materials  
4 in power delivery equipment such as trans-  
5 mission and distribution cables, transformers,  
6 and generators;

7 (F) energy management technologies for  
8 enterprises with aggregated loads and distrib-  
9 uted generation, such as power parks;

10 (G) economic and system models to meas-  
11 ure the costs and benefits of improved system  
12 performance;

13 (H) hybrid distributed energy systems to  
14 optimize two or more distributed or on-site gen-  
15 eration technologies; and

16 (I) real-time transmission and distribution  
17 system control technologies that provide for  
18 continual exchange of information between gen-  
19 eration, transmission, distribution, and end-user  
20 facilities.

21 (c) SPECIAL PROJECTS.—In carrying out this sec-  
22 tion, the Secretary shall demonstrate—

23 (1) the use of advanced wind power technology,  
24 biomass, geothermal energy systems, and other re-

1 newable energy technologies to assist in delivering  
2 electricity to rural and remote locations; and

3 (2) the combined use of wind power and coal  
4 gasification technologies.

5 (d) FINANCIAL ASSISTANCE TO RURAL AREAS.—In  
6 carrying out special projects under subsection (c), the Sec-  
7 retary may provide financial assistance to rural electric  
8 cooperatives and other rural entities.

9 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the Secretary for car-  
11 rying out research, development, demonstration, and tech-  
12 nology deployment activities under this subtitle—

13 (1) \$500,000,000 for fiscal year 2003;

14 (2) \$595,000,000 for fiscal year 2004;

15 (3) \$683,000,000 for fiscal year 2005; and

16 (4) \$733,000,000 for fiscal year 2006.

17 **SEC. 1222. BIOENERGY PROGRAMS.**

18 (a) PROGRAM DIRECTION.—The Secretary shall  
19 carry out research, development, demonstration, and tech-  
20 nology development activities related to bioenergy, includ-  
21 ing programs under paragraphs (4) and (6) of section  
22 1221(b).

23 (b) AUTHORIZATION OF APPROPRIATIONS.—

24 (1) BIOPOWER ENERGY SYSTEMS.—From  
25 amounts authorized under section 1221(e), there are

1 authorized to be appropriated to the Secretary for  
2 biopower energy systems—

- 3 (A) \$60,300,000 for fiscal year 2003;
- 4 (B) \$69,300,000 for fiscal year 2004;
- 5 (C) \$79,600,000 for fiscal year 2005; and
- 6 (D) \$86,250,000 for fiscal year 2006.

7 (2) **BIOFUELS ENERGY SYSTEMS.**—From  
8 amounts authorized under section 1221(e), there are  
9 authorized to be appropriated to the Secretary for  
10 biofuels energy systems—

- 11 (A) \$57,500,000 for fiscal year 2003;
- 12 (B) \$66,125,000 for fiscal year 2004;
- 13 (C) \$76,000,000 for fiscal year 2005; and
- 14 (D) \$81,400,000 for fiscal year 2006.

15 (3) **INTEGRATED BIOENERGY RESEARCH AND**  
16 **DEVELOPMENT.**—The Secretary may use funds au-  
17 thorized under paragraph (1) or (2) for programs,  
18 projects, or activities that integrate applications for  
19 both biopower and biofuels, including cross-cutting  
20 research and development in feedstocks and eco-  
21 nomic analysis.

22 **SEC. 1223. HYDROGEN RESEARCH AND DEVELOPMENT.**

23 (a) **SHORT TITLE.**—This section may be cited as the  
24 “Hydrogen Future Act of 2002”.

1 (b) PURPOSES.—Section 102(b) of the Spark M.  
2 Matsunaga Hydrogen Research, Development, and Dem-  
3 onstration Act of 1990 (42 U.S.C. 12401(b)) is amended  
4 by striking paragraphs (2) and (3) and inserting the fol-  
5 lowing:

6 “(2) to direct the Secretary to develop a pro-  
7 gram of technology assessment, information trans-  
8 fer, and education in which Federal agencies, mem-  
9 bers of the transportation, energy, and other indus-  
10 tries, and other entities may participate;

11 “(3) to develop methods of hydrogen production  
12 that minimize production of greenhouse gases, in-  
13 cluding developing—

14 “(A) efficient production from non-renew-  
15 able resources; and

16 “(B) cost-effective production from renew-  
17 able resources such as biomass, geothermal,  
18 wind, and solar energy; and

19 “(4) to foster the use of hydrogen as a major  
20 energy source, including developing the use of hydro-  
21 gen in—

22 “(A) isolated villages, islands, and commu-  
23 nities in which other energy sources are not  
24 available or are very expensive; and

1           “(B) foreign economic development, to  
2           avoid environmental damage from increased fos-  
3           sil fuel use.”.

4           (c) REPORT TO CONGRESS.—Section 103 of the  
5 Spark M. Matsunaga Hydrogen Research, Development,  
6 and Demonstration Act of 1990 (42 U.S.C. 12402) is  
7 amended—

8           (1) in subsection (a), by striking “January 1,  
9           1999,” and inserting “1 year after the date of enact-  
10          ment of the Hydrogen Future Act of 2002, and bi-  
11          ennially thereafter,”;

12          (2) in subsection (b), by striking paragraphs  
13          (1) and (2) and inserting the following:

14           “(1) an analysis of hydrogen-related activities  
15          throughout the United States Government to iden-  
16          tify productive areas for increased intragovernmental  
17          collaboration;

18           “(2) recommendations of the Hydrogen Tech-  
19          nical Advisory Panel established by section 108 for  
20          any improvements in the program that are needed,  
21          including recommendations for additional legislation;  
22          and

23           “(3) to the extent practicable, an analysis of  
24          State and local hydrogen-related activities.”; and

25          (3) by adding at the end the following:

1       “(c) COORDINATION PLAN.—The report under sub-  
2 section (a) shall be based on a comprehensive coordination  
3 plan for hydrogen energy prepared by the Secretary in  
4 consultation with other Federal agencies.”.

5       (d) HYDROGEN RESEARCH AND DEVELOPMENT.—  
6 Section 104 of the Spark M. Matsunaga Hydrogen Re-  
7 search, Development, and Demonstration Act of 1990 (42  
8 U.S.C. 12403) is amended—

9           (1) in subsection (b)(1), by striking “market-  
10 place;” and inserting “marketplace, including foreign  
11 markets, particularly where an energy infrastructure  
12 is not well developed;”;

13           (2) in subsection (e), by striking “this chapter”  
14 and inserting “this Act”;

15           (3) by striking subsection (g) and inserting the  
16 following:

17       “(g) COST SHARING.—

18           “(1) INABILITY TO FUND ENTIRE COST.—The  
19 Secretary shall not consider a proposal submitted by  
20 a person from industry unless the proposal contains  
21 a certification that—

22                   “(A) reasonable efforts to obtain non-Fed-  
23 eral funding in the amount necessary to pay  
24 100 percent of the cost of the project have been  
25 made; and

1           “(B) non-Federal funding in that amount  
2 could not reasonably be obtained.

3           “(2) NON-FEDERAL SHARE.—

4           “(A) IN GENERAL.—The Secretary shall  
5 require a commitment from non-Federal  
6 sources of at least 25 percent of the cost of the  
7 project.

8           “(B) REDUCTION OR ELIMINATION.—The  
9 Secretary may reduce or eliminate the cost-  
10 sharing requirement under subparagraph (A)  
11 for the proposed research and development  
12 project, including for technical analyses, eco-  
13 nomic analyses, outreach activities, and edu-  
14 cational programs, if the Secretary determines  
15 that reduction or elimination is necessary to  
16 achieve the objectives of this Act.

17           (4) in subsection (i), by striking “this chapter”  
18 and inserting “this Act”.

19           (e) DEMONSTRATIONS.—Section 105 of the Spark M.  
20 Matsunaga Hydrogen Research, Development, and Dem-  
21 onstration Act of 1990 (42 U.S.C. 12404) is amended by  
22 striking subsection (c) and inserting the following:

23           “(c) NON-FEDERAL SHARE.—

24           “(1) IN GENERAL.—Except as provided in para-  
25 graph (2), the Secretary shall require a commitment

1 from non-Federal sources of at least 50 percent of  
2 the costs directly relating to a demonstration project  
3 under this section.

4 “(2) REDUCTION.—The Secretary may reduce  
5 the non-Federal requirement under paragraph (1) if  
6 the Secretary determines that the reduction is ap-  
7 propriate considering the technological risks involved  
8 in the project and is necessary to meet the objectives  
9 of this Act.”.

10 (f) TECHNOLOGY TRANSFER.—Section 106 of the  
11 Spark M. Matsunaga Hydrogen Research, Development,  
12 and Demonstration Act of 1990 (42 U.S.C. 12405) is  
13 amended—

14 (1) in subsection (a)—

15 (A) in the first sentence—

16 (i) by striking “The Secretary shall  
17 conduct a program designed to accelerate  
18 wider application” and inserting the fol-  
19 lowing:

20 “(1) IN GENERAL.—The Secretary shall con-  
21 duct a program designed to—

22 “(A) accelerate wider application”; and

23 (ii) by striking “private sector” and  
24 inserting “private sector; and

1           “(B) accelerate wider application of hydro-  
2           gen technologies in foreign countries to increase  
3           the global market for the technologies and fos-  
4           ter global economic development without harm-  
5           ful environmental effects.”; and

6           (B) in the second sentence, by striking  
7           “The Secretary” and inserting the following:

8           “(2) ADVICE AND ASSISTANCE.—The Sec-  
9           retary”; and

10          (2) in subsection (b)—

11           (A) in paragraph (2), by redesignating  
12           subparagraphs (A) through (D) as clauses (i)  
13           through (iv), respectively, and indenting appro-  
14           priately;

15           (B) by redesignating paragraphs (1) and  
16           (2) as subparagraphs (A) and (B), respectively,  
17           and indenting appropriately;

18           (C) by striking “The Secretary, in” and in-  
19           serting the following:

20           “(1) IN GENERAL.—The Secretary, in”;

21           (D) by striking “The information” and in-  
22           serting the following:

23           “(2) ACTIVITIES.—The information”; and

24           (E) in paragraph (1) (as designated by  
25           subparagraph (C))—

1 (i) in subparagraph (A) (as redesignated by subparagraph (B)), by striking  
2 “an inventory” and inserting “an update  
3 of the inventory”; and

4 (ii) in subparagraph (B) (as redesignated by subparagraph (B)), by striking  
5 “develop” and all that follows through “to  
6 improve” and inserting “develop with the  
7 National Aeronautics and Space Administration, the Department of Energy, other  
8 Federal agencies as appropriate, and industry, an information exchange program  
9 to improve”.

10 (g) TECHNICAL PANEL REVIEW.—

11 (1) IN GENERAL.—Section 108 of the Spark M.  
12 Matsunaga Hydrogen Research, Development, and  
13 Demonstration Act of 1990 (42 U.S.C. 12407) is  
14 amended—

15 (A) in subsection (b)—

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

19 “(b) MEMBERSHIP.—  
20  
21  
22  
23

1           “(1) IN GENERAL.—The technical panel shall  
2           be comprised of not fewer than 9 nor more than 15  
3           members appointed”;

4                       (ii) by striking the second sentence  
5           and inserting the following:

6           “(2) TERMS.—

7                       “(A) IN GENERAL.—The term of a mem-  
8           ber of the technical panel shall be not more  
9           than 3 years.

10                      “(B) STAGGERED TERMS.—The Secretary  
11           may appoint members of the technical panel in  
12           a manner that allows the terms of the members  
13           serving at any time to expire at spaced intervals  
14           so as to ensure continuity in the functioning of  
15           the technical panel.

16                      “(C) REAPPOINTMENT.—A member of the  
17           technical panel whose term expires may be re-  
18           appointed.”; and

19                      (iii) by striking “The technical panel  
20           shall have a chairman,” and inserting the  
21           following:

22                      “(3) CHAIRPERSON.—The technical panel shall  
23           have a chairperson,”; and

24                      (B) in subsection (d)—

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

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

5 (iii) in paragraph (2), by striking the  
6 period at the end and inserting “; and”;  
7 and

8 (iv) by adding at the end the fol-  
9 lowing:

10 “(3) the plan developed by the interagency task  
11 force under section 202(b) of the Hydrogen Future  
12 Act of 1996.”.

13 (2) NEW APPOINTMENTS.—Not later than 180  
14 days after the date of enactment of this Act, the  
15 Secretary—

16 (A) shall review the membership composi-  
17 tion of the Hydrogen Technical Advisory Panel;  
18 and

19 (B) may appoint new members consistent  
20 with the amendments made by subsection (a).

21 (h) AUTHORIZATION OF APPROPRIATIONS.—Section  
22 109 of the Spark M. Matsunaga Hydrogen Research, De-  
23 velopment, and Demonstration Act of 1990 (42 U.S.C.  
24 12408) is amended—

25 (1) in paragraph (8), by striking “and”;

1           (2) in paragraph (9), by striking the period and  
2 inserting a semicolon; and

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

4           “(10) \$65,000,000 for fiscal year 2003;

5           “(11) \$70,000,000 for fiscal year 2004;

6           “(12) \$75,000,000 for fiscal year 2005; and

7           “(13) \$80,000,000 for fiscal year 2006.”.

8           (i) FUEL CELLS.—

9           (1) INTEGRATION OF FUEL CELLS WITH HY-  
10 DROGEN PRODUCTION SYSTEMS.—Section 201 of the  
11 Hydrogen Future Act of 1996 is amended—

12           (A) in subsection (a)—

13           (i) by striking “(a) Not later than 180  
14 days after the date of enactment of this  
15 section, and subject” and inserting “(a) IN  
16 GENERAL.—Subject”; and

17           (B) by striking “with—” and all that fol-  
18 lows and inserting “into Federal, State, and  
19 local government facilities for stationary and  
20 transportation applications.”;

21           (2) in subsection (b), by striking “gas is” and  
22 inserting “basis”;

23           (3) in subsection (c)(2), by striking “systems  
24 described in subsections (a)(1) and (a)(2)” and in-  
25 serting “projects proposed”; and

1 (4) by striking subsection (d) and inserting the  
2 following:

3 “(d) NON-FEDERAL SHARE.—

4 “(1) IN GENERAL.—Except as provided in para-  
5 graph (2), the Secretary shall require a commitment  
6 from non-Federal sources of at least 50 percent of  
7 the costs directly relating to a demonstration project  
8 under this section.

9 “(2) REDUCTION.—The Secretary may reduce  
10 the non-Federal requirement under paragraph (1) if  
11 the Secretary determines that the reduction is ap-  
12 propriate considering the technological risks involved  
13 in the project and is necessary to meet the objectives  
14 of this Act.”.

15 (2) COOPERATIVE AND COST-SHARING AGREE-  
16 MENTS; INTEGRATION OF TECHNICAL INFORMA-  
17 TION.—Title II of the Hydrogen Future Act of 1996  
18 (42 U.S.C. 12403 note; Public Law 104–271) is  
19 amended by striking section 202 and inserting the  
20 following:

21 **“SEC. 202. INTERAGENCY TASK FORCE.**

22 “(a) ESTABLISHMENT.—Not later than 120 days  
23 after the date of enactment of this section, the Secretary  
24 shall establish an interagency task force led by a Deputy

1 Assistant Secretary of the Department of Energy and  
2 comprised of representatives of—

3 “(1) the Office of Science and Technology Pol-  
4 icy;

5 “(2) the Department of Transportation;

6 “(3) the Department of Defense;

7 “(4) the Department of Commerce (including  
8 the National Institute for Standards and Tech-  
9 nology);

10 “(5) the Environmental Protection Agency;

11 “(6) the National Aeronautics and Space Ad-  
12 ministration; and

13 “(7) other agencies as appropriate.

14 “(b) DUTIES.—

15 “(1) IN GENERAL.—The task force shall de-  
16 velop a plan for carrying out this title.

17 “(2) FOCUS OF PLAN.—The plan shall focus on  
18 development and demonstration of integrated sys-  
19 tems and components for—

20 “(A) hydrogen production, storage, and  
21 use in Federal, State, and local government  
22 buildings and vehicles;

23 “(B) hydrogen-based infrastructure for  
24 buses and other fleet transportation systems  
25 that include zero-emission vehicles; and

1           “(C) hydrogen-based distributed power  
2           generation, including the generation of com-  
3           bined heat, power, and hydrogen.

4 **“SEC. 203. COOPERATIVE AND COST-SHARING AGREE-**  
5 **MENTS.**

6           “The Secretary shall enter into cooperative and cost-  
7 sharing agreements with Federal, State, and local agencies  
8 for participation by the agencies in demonstrations at fa-  
9 cilities administered by the agencies, with the aim of inte-  
10 grating high efficiency hydrogen systems using fuel cells  
11 into the facilities to provide immediate benefits and pro-  
12 mote a smooth transition to hydrogen as an energy source.

13 **“SEC. 204. INTEGRATION AND DISSEMINATION OF TECH-**  
14 **NICAL INFORMATION.**

15           “The Secretary shall—

16           “(1) integrate all the technical information that  
17 becomes available as a result of development and  
18 demonstration projects under this title;

19           “(2) make the information available to all Fed-  
20 eral and State agencies for dissemination to all in-  
21 terested persons; and

22           “(3) foster the exchange of generic, nonpropri-  
23 etary information and technology developed under  
24 this title among industry, academia, and Federal,  
25 State, and local governments, to help the United

1 States economy attain the economic benefits of the  
2 information and technology.

3 **“SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

4 “There are authorized to be appropriated, for activi-  
5 ties under this title—

6 “(1) \$25,000,000 for fiscal year 2003;

7 “(2) \$30,000,000 for fiscal year 2004;

8 “(3) \$35,000,000 for fiscal year 2005; and

9 “(4) \$40,000,000 for fiscal year 2006.”.

10 **Subtitle C—Fossil Energy**

11 **SEC. 1231. ENHANCED FOSSIL ENERGY RESEARCH AND DE-**  
12 **VELOPMENT.**

13 (a) PROGRAM DIRECTION.—The Secretary shall con-  
14 duct a balanced energy research, development, demonstra-  
15 tion, and technology deployment program to enhance fossil  
16 energy.

17 (b) PROGRAM GOALS.—

18 (1) CORE FOSSIL RESEARCH AND DEVEL-  
19 OPMENT.—The goals of the core fossil research  
20 and development program shall be to reduce  
21 emissions from fossil fuel use by developing  
22 technologies, including precombustion tech-  
23 nologies, by 2015 with the capability of  
24 realizing—

1 (A) electricity generating efficiencies of 60  
2 percent for coal and 75 percent for natural gas;

3 (B) combined heat and power thermal effi-  
4 ciencies of more than 85 percent;

5 (C) fuels utilization efficiency of 75 per-  
6 cent for the production of liquid transportation  
7 fuels from coal;

8 (D) near zero emissions of mercury and of  
9 emissions that form fine particles, smog, and  
10 acid rain;

11 (E) reduction of carbon dioxide emissions  
12 by at least 40 percent through efficiency im-  
13 provements and 100 percent with sequestration;  
14 and

15 (F) improved reliability, efficiency, reduc-  
16 tions of air pollutant emissions, or reductions in  
17 solid waste disposal requirements.

18 (2) OFFSHORE OIL AND NATURAL GAS RE-  
19 SOURCES.—The goal of the offshore oil and natural  
20 gas resources program shall be to develop tech-  
21 nologies to—

22 (A) extract methane hydrates in coastal  
23 waters of the United States, and

1           (B) develop natural gas and oil reserves in  
2           the ultra-deepwater of the Central and Western  
3           Gulf of Mexico.

4           (3) ONSHORE OIL AND NATURAL GAS RE-  
5           SOURCES.—The goal of the onshore oil and natural  
6           gas resources program shall be to advance the  
7           science and technology available to domestic onshore  
8           petroleum producers, particularly independent opera-  
9           tors, through—

10           (A) advances in technology for exploration  
11           and production of domestic petroleum re-  
12           sources, particularly those not accessible with  
13           current technology;

14           (B) improvement in the ability to extract  
15           hydrocarbons from known reservoirs and classes  
16           of reservoirs; and

17           (C) development of technologies and prac-  
18           tices that reduce the threat to the environment  
19           from petroleum exploration and production and  
20           decrease the cost of effective environmental  
21           compliance.

22           (4) TRANSPORTATION FUELS.—The goals of  
23           the transportation fuels program shall be to increase  
24           the price elasticity of oil supply and demand by fo-  
25           cusing research on—

1 (A) reducing the cost of producing trans-  
2 portation fuels from coal and natural gas; and

3 (B) indirect liquefaction of coal and bio-  
4 mass.

5 (c) AUTHORIZATION OF APPROPRIATIONS.—

6 (1) IN GENERAL.—There are authorized to be  
7 appropriated to the Secretary for carrying out re-  
8 search, development, demonstration, and technology  
9 deployment activities under this section—

10 (A) \$485,000,000 for fiscal year 2003;

11 (B) \$508,000,000 for fiscal year 2004;

12 (C) \$532,000,000 for fiscal year 2005; and

13 (D) \$558,000,000 for fiscal year 2006.

14 (2) LIMITS ON USE OF FUNDS.—

15 (A) None of the funds authorized in para-  
16 graph (1) may be used for—

17 (i) Fossil energy environmental res-  
18 toration;

19 (ii) Import/export authorization;

20 (iii) Program direction; or

21 (iv) General plant projects.

22 (B) COAL-BASED PROJECTS.—The coal-  
23 based projects funded under this section shall  
24 be consistent with the goals in subsection (b).

25 The program shall emphasize carbon capture

1           and sequestration technologies and gasification  
2           technologies, including gasification combined  
3           cycle, gasification fuel cells, gasification co-pro-  
4           duction, hybrid gasification/combustion, or  
5           other technology with the potential to address  
6           the goals in subparagraphs (D) or (E) of sub-  
7           section (b)(1).

8   **SEC. 1232. POWER PLANT IMPROVEMENT INITIATIVE.**

9           (a) PROGRAM DIRECTION.—The Secretary shall con-  
10          duct a balanced energy research, development, demonstra-  
11          tion, and technology deployment program to demonstrate  
12          commercial applications of advanced lignite and coal-based  
13          technologies applicable to new or existing power plants (in-  
14          cluding co-production plants) that advance the efficiency,  
15          environmental performance, and cost-competitiveness sub-  
16          stantially beyond technologies that are in operation or  
17          have been demonstrated by the date of enactment of this  
18          subtitle.

19          (b) TECHNICAL MILESTONES.—

20               (1) IN GENERAL.—The Secretary shall set tech-  
21          nical milestones specifying efficiency and emissions  
22          levels that projects shall be designed to achieve. The  
23          milestones shall become more restrictive over the life  
24          of the program.

1           (2) 2010 EFFICIENCY MILESTONES.—The mile-  
2 stones shall be designed to achieve by 2010 interim  
3 thermal efficiency of—

4           (A) 45 percent for coal of more than 9,000

5 Btu;

6           (B) 44 percent for coal of 7,000 to 9,000

7 Btu; and (C) 42 percent for coal of less than  
8 7,000 Btu.

9           (3) 2020 EFFICIENCY MILESTONES.—The mile-  
10 stones shall be designed to achieve by 2020 thermal  
11 efficiency of—

12           (A) 60 percent for coal of more than 9,000

13 Btu;

14           (B) 59 percent for coal of 7,000 to 9,000

15 Btu; and

16           (C) 57 percent for coal of less than 7,000

17 Btu.

18           (4) EMISSIONS MILESTONES.—The milestones  
19 shall include near zero emissions of mercury and  
20 greenhouse gases and of emissions that form fine  
21 particles, smog, and acid rain.

22           (5) REGIONAL AND QUALITY DIFFERENCES.—

23 The Secretary may consider regional and quality dif-  
24 ferences in developing the efficiency milestones.

1           (c) PROJECT CRITERIA.—The demonstration activi-  
2 ties proposed to be conducted at a new or existing coal-  
3 based electric generation unit having a nameplate rating  
4 of not less than 100 megawatts, excluding a co-production  
5 plant, shall include at least one of the following—

6           (1) a means of recycling or reusing a significant  
7 portion of coal combustion wastes produced by coal-  
8 based generating units, excluding practices that are  
9 commercially available by the date of enactment of  
10 this subtitle;

11           (2) a means of capture and sequestering emis-  
12 sions, including greenhouse gases, in a manner that  
13 is more effective and substantially below the cost of  
14 technologies that are in operation or that have been  
15 demonstrated by the date of enactment of this sub-  
16 title;

17           (3) a means of controlling sulfur dioxide and ni-  
18 trogen oxide or mercury in a manner that improves  
19 environmental performance beyond technologies that  
20 are in operation or that have been demonstrated by  
21 the date of enactment of this subtitle, and

22           (A) in the case of an existing unit, achieve  
23 an overall thermal design efficiency improve-  
24 ment compared to the efficiency of the unit as  
25 operated, of not less than—

1 (i) 7 percent for coal of more than  
2 9,000 Btu;

3 (ii) 6 percent for coal of 7,000 to  
4 9,000 Btu; or

5 (iii) 4 percent for coal of less than  
6 7,000 Btu; or

7 (B) in the case of a new unit, achieve the  
8 efficiency milestones set for in subsection (b)  
9 compared to the efficiency of a typical unit as  
10 operated on the date of enactment of this sub-  
11 title, before any retrofit, repowering, replace-  
12 ment, or installation.

13 (d) STUDY.—The Secretary, in consultation with the  
14 Administrator of the Environmental Protection Agency,  
15 the Secretary of the Interior, and interested entities (in-  
16 cluding coal producers, industries using coal, organiza-  
17 tions to promote coal or advanced coal technologies, envi-  
18 ronmental organizations, and organizations representing  
19 workers), shall conduct an assessment that identifies per-  
20 formance criteria that would be necessary for coal-based  
21 technologies to meet, to enable future reliance on coal in  
22 an environmentally sustainable manner for electricity gen-  
23 eration, use as a chemical feedstock, and use as a trans-  
24 portation fuel.

25 (e) AUTHORIZATION OF APPROPRIATIONS.—

1           (1) IN GENERAL.—There are authorized to be  
2           appropriated to the Secretary for carrying out activi-  
3           ties under this section \$200,000,000 for each of fis-  
4           cal years 2003 through 2011.

5           (2) LIMITATION ON FUNDING OF PROJECTS.—  
6           Eighty percent of the funding under this section  
7           shall be limited to—

8                   (A) carbon capture and sequestration tech-  
9                   nologies; or

10                   (B) gasification technologies, including  
11                   gasification combined cycle, gasification fuel  
12                   cells, gasification co-production, or hybrid gas-  
13                   ification/combustion, or

14                   (C) other technology either by itself or in  
15                   conjunction with other technologies has the po-  
16                   tential to achieve near zero emissions.

17 **SEC. 1233. RESEARCH AND DEVELOPMENT FOR ADVANCED**  
18                   **SAFE AND EFFICIENT COAL MINING TECH-**  
19                   **NOLOGIES.**

20           (a) ESTABLISHMENT.—The Secretary of Energy  
21           shall establish a cooperative research partnership involving  
22           appropriate Federal agencies, coal producers, including as-  
23           sociations, equipment manufacturers, universities with  
24           mining engineering departments, and other relevant enti-  
25           ties to—

1           (1) develop mining research priorities identified  
2           by the Mining Industry of the Future Program and  
3           in the recommendations from relevant reports of the  
4           National Academy of Sciences on mining tech-  
5           nologies;

6           (2) establish a process for conducting joint in-  
7           dustry-government research and development; and

8           (3) expand mining research capabilities at insti-  
9           tutions of higher education.

10       (b) AUTHORIZATION OF APPROPRIATIONS.—

11           (1) IN GENERAL.—There are authorized to be  
12           appropriated to carry out activities under this sec-  
13           tion, \$12,000,000 in fiscal year 2003 and  
14           \$15,000,000 in fiscal year 2004.

15           (2) LIMIT ON USE OF FUNDS.—Not less than  
16           20 percent of any funds appropriated in a given fis-  
17           cal year under this subsection shall be dedicated to  
18           research carried out at institutions of higher edu-  
19           cation.

20       **SEC. 1234. ULTRA-DEEPWATER AND UNCONVENTIONAL RE-**  
21                               **SOURCE EXPLORATION AND PRODUCTION**  
22                               **TECHNOLOGIES.**

23       (a) DEFINITIONS.—In this section:

24           (1) ADVISORY COMMITTEE.—The term “Advi-  
25           sory Committee” means the Ultra-Deepwater and

1 Unconventional Resource Technology Advisory Com-  
2 mittee established under subsection (c).

3 (2) AWARD.—The term “award” means a coop-  
4 erative agreement, contract, award or other types of  
5 agreement as appropriate.

6 (3) DEEPWATER.—The term “deepwater”  
7 means a water depth that is greater than 200 but  
8 less than 1,500 meters.

9 (4) ELIGIBLE AWARD RECIPIENT.—The term  
10 “eligible award recipient” includes—

11 (A) a research institution;

12 (B) an institution of higher education;

13 (C) a corporation; and

14 (D) a managing consortium formed among  
15 entities described in subparagraphs (A) through  
16 (C).

17 (5) INSTITUTION OF HIGHER EDUCATION.—The  
18 term “institution of higher education” has the  
19 meaning given the term in section 101 of the Higher  
20 Education Act of 1965 (20 U.S.C. 1001).

21 (6) MANAGING CONSORTIUM.—The term “man-  
22 aging consortium” means an entity that—

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

1 (B)(i) is an organization described in sec-  
2 tion 501(c)(3) of the Internal Revenue Code of  
3 1986; and

4 (ii) is exempt from taxation under section  
5 501(a) of that Code;

6 (C) is experienced in planning and man-  
7 aging programs in natural gas or other petro-  
8 leum exploration and production research, de-  
9 velopment, and demonstration; and

10 (D) has demonstrated capabilities and ex-  
11 perience in representing the views and priorities  
12 of industry, institutions of higher education and  
13 other research institutions in formulating com-  
14 prehensive research and development plans and  
15 programs.

16 (7) PROGRAM.—The term “program” means  
17 the program of research, development, and dem-  
18 onstration established under subsection (b)(1)(A).

19 (8) ULTRA-DEEPWATER.—The term “ultra-  
20 deepwater” means a water depth that is equal to or  
21 greater than 1,500 meters.

22 (9) ULTRA-DEEPWATER ARCHITECTURE.—The  
23 term “ultra-deepwater architecture” means the inte-  
24 gration of technologies to explore and produce nat-

1        ural gas or petroleum products located at ultra-deep-  
2        water depths.

3            (10)    ULTRA-DEEPWATER    RESOURCE.—The  
4        term “ultra-deepwater resource” means natural gas  
5        or any other petroleum resource (including methane  
6        hydrate) located in an ultra-deepwater area.

7            (11) UNCONVENTIONAL RESOURCE.—The term  
8        “unconventional resource” means natural gas or any  
9        other petroleum resource located in a formation on  
10       physically or economically inaccessible land currently  
11       available for lease for purposes of natural gas or  
12       other petroleum exploration or production.

13        (b) ULTRA-DEEPWATER AND UNCONVENTIONAL EX-  
14        PLORATION AND PRODUCTION PROGRAM.—

15            (1) ESTABLISHMENT.—

16            (A) IN GENERAL.—The Secretary shall es-  
17        tablish a program of research into, and develop-  
18        ment and demonstration of, ultra-deepwater re-  
19        source and unconventional resource exploration  
20        and production technologies.

21            (B) LOCATION; IMPLEMENTATION.—The  
22        program under this subsection shall be carried  
23        out—

1 (i) in areas on the outer Continental  
2 Shelf that, as of the date of enactment of  
3 this section, are available for leasing; and

4 (ii) on unconventional resources.

5 (2) COMPONENTS.—The program shall include  
6 one or more programs for long-term research into—

7 (A) new deepwater ultra-deepwater re-  
8 source and unconventional resource exploration  
9 and production technologies; or

10 (B) environmental mitigation technologies  
11 for production of ultra-deepwater resource and  
12 unconventional resource.

13 (c) ADVISORY COMMITTEE.—

14 (1) ESTABLISHMENT.—Not later than 30 days  
15 after the date of enactment of this section, the Sec-  
16 retary shall establish an advisory committee to be  
17 known as the “Ultra-Deepwater and Unconventional  
18 Resource Technology Advisory Committee”.

19 (2) MEMBERSHIP.—

20 (A) COMPOSITION.—Subject to subpara-  
21 graph (B), the advisory committee shall be com-  
22 posed of 7 members appointed by the Secretary  
23 that—

24 (i) have extensive operational knowl-  
25 edge of and experience in the natural gas

1 and other petroleum exploration and pro-  
2 duction industry; and

3 (ii) are not Federal employees or em-  
4 ployees of contractors to a federal agency.

5 (B) EXPERTISE.—Of the members of the  
6 advisory committee appointed under subpara-  
7 graph (A)—

8 (i) at least 4 members shall have ex-  
9 tensive knowledge of ultra-deepwater re-  
10 source exploration and production tech-  
11 nologies;

12 (ii) at least 3 members shall have ex-  
13 tensive knowledge of unconventional re-  
14 source exploration and production tech-  
15 nologies.

16 (3) DUTIES.—The advisory committee shall ad-  
17 vise the Secretary in the implementation of this sec-  
18 tion.

19 (4) COMPENSATION.—A member of the advi-  
20 sory committee shall serve without compensation but  
21 shall receive travel expenses, including per diem in  
22 lieu of subsistence, in accordance with applicable  
23 provisions under subchapter I of chapter 57 of title  
24 5, United States Code.

25 (d) AWARDS.—

1 (1) TYPES OF AWARDS.—

2 (A) ULTRA-DEEPWATER RESOURCES.—

3 (i) IN GENERAL.—The Secretary shall  
4 make awards for research into, and devel-  
5 opment and demonstration of, ultra-deep-  
6 water resource exploration and production  
7 technologies—

8 (I) to maximize the value of the  
9 ultra-deepwater resources of the  
10 United States;

11 (II) to increase the supply of  
12 ultra-deepwater resources by lowering  
13 the cost and improving the efficiency  
14 of exploration and production of such  
15 resources; and

16 (III) to improve safety and mini-  
17 mize negative environmental impacts  
18 of that exploration and production.

19 (ii) ULTRA-DEEPWATER ARCHITEC-  
20 TURE.—In furtherance of the purposes de-  
21 scribed in clause (i), the Secretary shall,  
22 where appropriate, solicit proposals from a  
23 managing consortium to develop and dem-  
24 onstrate next-generation architecture for  
25 ultra-deepwater resource production.

1 (B) UNCONVENTIONAL RESOURCES.—The  
2 Secretary shall make awards—

3 (i) to carry out research into, and de-  
4 velopment and demonstration of, tech-  
5 nologies to maximize the value of uncon-  
6 ventional resources; and

7 (ii) to develop technologies to  
8 simultaneously—

9 (I) increase the supply of uncon-  
10 ventional resources by lowering the  
11 cost and improving the efficiency of  
12 exploration and production of uncon-  
13 ventional resources; and

14 (II) improve safety and minimize  
15 negative environmental impacts of  
16 that exploration and production.

17 (2) CONDITIONS.—An award made under this  
18 subsection shall be subject to the following condi-  
19 tions:

20 (A) MULTIPLE ENTITIES.—If an award re-  
21 cipient is composed of more than one eligible  
22 organization, the recipient shall provide a  
23 signed contract, agreed to by all eligible organi-  
24 zations comprising the award recipient, that de-  
25 fines, in a manner that is consistent with all

1 applicable law in effect as of the date of the  
2 contract, all rights to intellectual property for—

3 (i) technology in existence as of that  
4 date; and

5 (ii) future inventions conceived and  
6 developed using funds provided under the  
7 award.

8 (B) COMPONENTS OF APPLICATION.—An  
9 application for an award for a demonstration  
10 project shall describe with specificity any in-  
11 tended commercial applications of the tech-  
12 nology to be demonstrated.

13 (C) COST SHARING.—Non-federal cost  
14 sharing shall be in accordance with section  
15 1403.

16 (e) PLAN AND FUNDING.—

17 (1) IN GENERAL.—The Secretary, and where  
18 appropriate, a managing consortium under sub-  
19 section (d)(1)(A)(ii), shall formulate annual oper-  
20 ating and performance objectives, develop multi-year  
21 technology roadmaps, and establish research and de-  
22 velopment priorities for the funding of activities  
23 under this section which will serve as guidelines for  
24 making awards including cost-matching objectives.

1           (2) INDUSTRY INPUT.—In carrying out this  
2 program, the Secretary shall promote maximum in-  
3 dustry input through the use of managing consortia  
4 or other organizations in planning and executing the  
5 research areas and conducting workshops or reviews  
6 to ensure that this program focuses on industry  
7 problems and needs.

8           (f) AUDITING.—

9           (1) IN GENERAL.—The Secretary shall retain  
10 an independent, commercial auditor to determine the  
11 extent to which funds authorized by this section,  
12 provided through a managing consortium, are ex-  
13 pended in a manner consistent with the purposes of  
14 this section.

15           (2) REPORTS.—The auditor retained under  
16 paragraph (1) shall submit to the Secretary, and the  
17 Secretary shall transmit to the appropriate congres-  
18 sional committees, an annual report that describes—

19                   (A) the findings of the auditor under para-  
20 graph (1); and

21                   (B) a plan under which the Secretary may  
22 remedy any deficiencies identified by the audi-  
23 tor.

1 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to the Secretary such  
3 sums as may be necessary to carry out this section.

4 (h) TERMINATION OF AUTHORITY.—The authority  
5 provided by this section shall terminate on September 30,  
6 2009.

7 (i) SAVINGS PROVISION.—Nothing in this section is  
8 intended to displace, duplicate or diminish any previously  
9 authorized research activities of the Department of En-  
10 ergy.

11 **SEC. 1235. RESEARCH AND DEVELOPMENT FOR NEW NAT-**  
12 **URAL GAS TRANSPORTATION TECH-**  
13 **NOLOGIES.**

14 The Secretary of Energy shall conduct a comprehen-  
15 sive five-year program for research, development and dem-  
16 onstration to improve the reliability, efficiency, safety and  
17 integrity of the natural gas transportation and distribu-  
18 tion infrastructure and for distributed energy resources  
19 (including microturbines, fuel cells, advanced engine-gen-  
20 erators, gas turbines, reciprocating engines, hybrid power  
21 generation systems, and all ancillary equipment for dis-  
22 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 INSTRUMENTA-  
9 TION.—Of the amounts under paragraph (1), the  
10 following amounts are authorized to carry out sub-  
11 section (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 INTER-  
17       NATIONAL EXPERIMENT.—In addition to the plan de-  
18       scribed in subsection (b), the Secretary, after consultation  
19       with the Fusion Energy Sciences Advisory Committee,  
20       may also develop a plan for United States participation  
21       in an international burning plasma experiment for the  
22       same purpose, whose construction is found by the Sec-  
23       retary to be highly likely and where United States partici-  
24       pation is cost-effective relative to the cost and scientific  
25       benefits of a domestic experiment described in subsection

1 (b). If the Secretary elects to develop a plan under this  
2 subsection, he shall include the information described in  
3 subsection (b)(2), and an estimate of the cost of United  
4 States participation in such an international experiment.  
5 The Secretary shall request a review by the National  
6 Academy of Sciences of a plan developed under this sub-  
7 section, and shall transmit the plan and the review to the  
8 Congress no later than July 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;

24           (3) incident tracking and trend analysis tools to  
25 assess the severity of threats and reported incidents

1 to the energy infrastructure; and (4) integrated  
2 multi-sensor, warning and mitigation technologies to  
3 detect, integrate, and localize events affecting the  
4 energy infrastructure including real time control to  
5 permit the reconfiguration of energy delivery sys-  
6 tems.

7 (c) REGIONAL COORDINATION.—The program under  
8 this section shall cooperate with Departmental activities  
9 to promote regional coordination under section 102 of this  
10 Act, to ensure that the technologies and assessments de-  
11 veloped by the program are transferred in a timely manner  
12 to State and local authorities, and to the energy indus-  
13 tries.

14 (d) COORDINATION WITH INDUSTRY RESEARCH OR-  
15 GANIZATIONS.—The Secretary may enter into grants, con-  
16 tracts, and cooperative agreements with industry research  
17 organizations to facilitate industry participation in re-  
18 search under this section and to fulfill applicable cost-  
19 sharing requirements.

20 (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
21 authorized to be appropriated to the Secretary to carry  
22 out this section \$10,000,000 for each of fiscal years 2003  
23 through 2006.

24 (f) CRITICAL ENERGY INFRASTRUCTURE FACILITY  
25 DEFINED.—For purposes of this section, the term “crit-

1 ical energy infrastructure facility” means a physical or  
2 cyber-based system or service for the generation, trans-  
3 mission or distribution of electrical energy, or the produc-  
4 tion, refining, transportation, or storage of petroleum, nat-  
5 ural gas, or petroleum product, the incapacity or destruc-  
6 tion of which would have a debilitating impact on the de-  
7 fense or economic security of the United States. The term  
8 shall not include a facility that is licensed by the Nuclear  
9 Regulatory Commission under section 103 or 104b of the  
10 Atomic Energy Act of 1954 (42 U.S.C. 2133 and  
11 2134(b)).

12 **SEC. 1262. PIPELINE INTEGRITY, SAFETY, AND RELIABILITY**  
13 **RESEARCH AND DEVELOPMENT.**

14 (a) IN GENERAL.—The Secretary of Transportation,  
15 in coordination with the Secretary of Energy, shall develop  
16 and implement an accelerated cooperative program of re-  
17 search and development to ensure the integrity of natural  
18 gas and hazardous liquid pipelines. This research and de-  
19 velopment program shall include materials inspection tech-  
20 niques, risk assessment methodology, and information sys-  
21 tems surety.

22 (b) PURPOSE.—The purpose of the cooperative re-  
23 search program shall be to promote research and develop-  
24 ment to—

- 1           (1) ensure long-term safety, reliability and serv-  
2           ice life for existing pipelines;
- 3           (2) expand capabilities of internal inspection  
4           devices to identify and accurately measure defects  
5           and anomalies;
- 6           (3) develop inspection techniques for pipelines  
7           that cannot accommodate the internal inspection de-  
8           vices available on the date of enactment;
- 9           (4) develop innovative techniques to measure  
10          the structural integrity of pipelines to prevent pipe-  
11          line failures;
- 12          (5) develop improved materials and coatings for  
13          use in pipelines;
- 14          (6) improve the capability, reliability, and prac-  
15          ticality of external leak detection devices;
- 16          (7) identify underground environments that  
17          might lead to shortened service life;
- 18          (8) enhance safety in pipeline siting and land  
19          use;
- 20          (9) minimize the environmental impact of pipe-  
21          lines;
- 22          (10) demonstrate technologies that improve  
23          pipeline safety, reliability, and integrity;
- 24          (11) provide risk assessment tools for opti-  
25          mizing risk mitigation strategies; and

1           (12) provide highly secure information systems  
2           for controlling the operation of pipelines.

3           (c) AREAS.—In carrying out this section, the Sec-  
4           retary of Transportation, in coordination with the Sec-  
5           retary of Energy, shall consider research and development  
6           on natural gas, crude oil, and petroleum product pipelines  
7           for—

8           (1) early crack, defect, and damage detection,  
9           including real-time damage monitoring;

10          (2) automated internal pipeline inspection sen-  
11          sor systems;

12          (3) land use guidance and set back manage-  
13          ment along pipeline rights-of-way for communities;

14          (4) internal corrosion control;

15          (5) corrosion-resistant coatings;

16          (6) improved cathodic protection;

17          (7) inspection techniques where internal inspec-  
18          tion is not feasible, including measurement of struc-  
19          tural integrity;

20          (8) external leak detection, including portable  
21          real-time video imaging technology, and the advance-  
22          ment of computerized control center leak detection  
23          systems utilizing real-time remote field data input;

24          (9) longer life, high strength, non-corrosive  
25          pipeline materials;

1           (10) assessing the remaining strength of exist-  
2           ing pipes;

3           (11) risk and reliability analysis models, to be  
4           used to identify safety improvements that could be  
5           realized in the near term resulting from analysis of  
6           data obtained from a pipeline performance tracking  
7           initiative;

8           (12) identification, monitoring, and prevention  
9           of outside force damage, including satellite surveil-  
10          lance; and

11          (13) any other areas necessary to ensuring the  
12          public safety and protecting the environment.

13          (d) RESEARCH AND DEVELOPMENT PROGRAM  
14          PLAN.—Within 240 days after the date of enactment of  
15          this section, the Secretary of Transportation, in coordina-  
16          tion with the Secretary of Energy and the Pipeline Integ-  
17          rity Technical Advisory Committee, shall prepare and sub-  
18          mit to the Congress a five-year program plan to guide ac-  
19          tivities under this section. In preparing the program plan,  
20          the Secretary shall consult with appropriate representa-  
21          tives of the natural gas, crude oil, and petroleum product  
22          pipeline industries to select and prioritize appropriate  
23          project proposals. The Secretary may also seek the advice  
24          of utilities, manufacturers, institutions of higher learning,  
25          Federal agencies, the pipeline research institutions, na-

1 tional laboratories, State pipeline safety officials, environ-  
2 mental organizations, pipeline safety advocates, and pro-  
3 fessional and technical societies.

4 (e) IMPLEMENTATION.—The Secretary of Transpor-  
5 tation shall have primary responsibility for ensuring the  
6 five-year plan provided for in subsection (d) is imple-  
7 mented as intended by this section. In carrying out the  
8 research, development, and demonstration activities under  
9 this section, the Secretary of Transportation and the Sec-  
10 retary of Energy may use, to the extent authorized under  
11 applicable provisions of law, contracts, cooperative agree-  
12 ments, cooperative research and development agreements  
13 under the Stevenson-Wydler Technology Innovation Act of  
14 1980 (15 U.S.C. 3701 et seq.), grants, joint ventures,  
15 other transactions, and any other form of agreement avail-  
16 able to the Secretary consistent with the recommendations  
17 of the Advisory Committee.

18 (f) REPORTS TO CONGRESS.—The Secretary of  
19 Transportation shall report to the Congress annually as  
20 to the status and results to date of the implementation  
21 of the research and development program plan. The report  
22 shall include the activities of the Departments of Trans-  
23 portation and Energy, the natural laboratories, univer-  
24 sities, and any other research organizations, including in-  
25 dustry research organizations.

1 (g) PIPELINE INTEGRITY TECHNICAL ADVISORY  
2 COMMITTEE.—

3 (1) ESTABLISHMENT.—The Secretary of Trans-  
4 portation shall enter into appropriate arrangements  
5 with the National Academy of Sciences to establish  
6 and manage the Pipeline Integrity Technical Advi-  
7 sory Committee for the purpose of advising the Sec-  
8 retary of Transportation and the Secretary of En-  
9 ergy on the development and implementation of the  
10 research and development program plan under sub-  
11 section (d). The Advisory Committee shall have an  
12 ongoing role in evaluating the progress and results  
13 of the research, development, and demonstration  
14 carried out under this section.

15 (2) MEMBERSHIP.—The National Academy of  
16 Sciences shall appoint the members of the Pipeline  
17 Integrity Technical Advisory Committee after con-  
18 sultation with the Secretary of Transportation and  
19 the Secretary of Energy. Members appointed to the  
20 Advisory Committee should have the necessary quali-  
21 fications to provide technical contributions to the  
22 purposes of the Advisory Committee.

23 (h) AUTHORIZATION OF APPROPRIATIONS.—

24 (1) There are authorized to be appropriated to  
25 the Secretary of Transportation for carrying out this

1 section \$3,000,000, to be derived from user fees  
2 under section 60301 of title 49, United States Code,  
3 for each of the fiscal years 2003 through 2006.

4 (2) Of the amounts available in the Oil Spill Li-  
5 ability Trust Fund established by section 9509 of  
6 the Internal Revenue Code of 1986 (26 U.S.C.  
7 9509), \$3,000,000 shall be transferred to the Sec-  
8 retary of Transportation, as provided in appropria-  
9 tion Acts, to carry out programs for detection, pre-  
10 vention and mitigation of oil spills under this section  
11 for each of the fiscal years 2003 through 2006.

12 (3) There are authorized to be appropriated to  
13 the Secretary of Energy for carrying out this section  
14 such sums as may be necessary for each of the fiscal  
15 years 2003 through 2006.

16 **SEC. 1263. RESEARCH AND DEMONSTRATION FOR REMEDI-**  
17 **ATION OF GROUNDWATER FROM ENERGY AC-**  
18 **TIVITIES.**

19 (a) IN GENERAL.—The Secretary shall carry out a  
20 research, development, demonstration, and technology de-  
21 ployment program to improve methods for environmental  
22 restoration of groundwater contaminated by energy activi-  
23 ties, including oil and gas production, surface and under-  
24 ground mining of coal, and in-situ extraction of energy  
25 resources.

1 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to the Secretary to carry  
3 out this section \$10,000,000 for each of fiscal years 2003  
4 through 2006.

5 **TITLE XIII—CLIMATE CHANGE-**  
6 **RELATED RESEARCH AND DE-**  
7 **VELOPMENT**

8 **Subtitle A—Department of Energy**  
9 **Programs**

10 **SEC. 1301. PROGRAM GOALS.**

11 The goals of the research, development, demonstra-  
12 tion, and technology deployment programs under this sub-  
13 title shall be to—

14 (1) provide a sound scientific understanding of  
15 the human and natural forces that influence the  
16 Earth's climate system, particularly those forces re-  
17 lated to energy production and use;

18 (2) help mitigate climate change from human  
19 activities related to energy production and use; and

20 (3) reduce, avoid, or sequester emissions of  
21 greenhouse gases in furtherance of the goals of the  
22 United National Framework Convention on Climate  
23 Change, done at New York on May 9, 1992, in a  
24 manner that does not result in serious harm to the  
25 U.S. economy.

1 **SEC. 1302. DEPARTMENT OF ENERGY GLOBAL CHANGE**  
2 **SCIENCE RESEARCH.**

3 (a) PROGRAM DIRECTION.—The Secretary, acting  
4 through the Office of Science, shall conduct a comprehen-  
5 sive research program to understand and address the ef-  
6 fects of energy production and use on the global climate  
7 system.

8 (b) PROGRAM ELEMENTS.—

9 (1) CLIMATE MODELING.—The Secretary  
10 shall—

11 (A) conduct observational and analytical  
12 research to acquire and interpret the data need-  
13 ed to describe the radiation balance from the  
14 surface of the Earth to the top of the atmos-  
15 phere;

16 (B) determine the factors responsible for  
17 the Earth's radiation balance and incorporate  
18 improved understanding of such factors in cli-  
19 mate models;

20 (C) improve the treatment of aerosols and  
21 clouds in climate models;

22 (D) reduce the uncertainty in decade-to-  
23 century model-based projections of climate  
24 change; and

25 (E) increase the availability and utility of  
26 climate change simulations to researchers and

1 policy makers interested in assessing the rela-  
2 tionship between energy and climate change.

3 (2) CARBON CYCLE.—The Secretary shall—

4 (A) carry out field research and modeling  
5 activities—

6 (i) to understand and document the  
7 net exchange of carbon dioxide between  
8 major terrestrial ecosystems and the at-  
9 mosphere; or

10 (ii) to evaluate the potential of pro-  
11 posed methods of carbon sequestration;

12 (B) develop and test carbon cycle models;

13 and

14 (C) acquire data and develop and test  
15 models to simulate and predict the transport,  
16 transformation, and fate of energy-related emis-  
17 sions in the atmosphere.

18 (3) ECOLOGICAL PROCESSES.—The Secretary  
19 shall carry out long-term experiments of the re-  
20 sponse of intact terrestrial ecosystems to—

21 (A) alterations in climate and atmospheric  
22 composition; or

23 (B) land-use changes that affect ecosystem  
24 extent and function.

1           (4) INTEGRATED ASSESSMENT.—The Secretary  
2 shall develop and improve methods and tools for in-  
3 tegrated analyses of the climate change system from  
4 emissions of aerosols and greenhouse gases to the  
5 consequences of these emissions on climate and the  
6 resulting effects of human-induced climate change  
7 on economic and social systems, with emphasis on  
8 critical gaps in integrated assessment modeling, in-  
9 cluding modeling of technology innovation and diffu-  
10 sion and the development of metrics of economic  
11 costs of climate change and policies for mitigating or  
12 adapting to climate change.

13       (c) AUTHORIZATION OF APPROPRIATIONS.—From  
14 amounts authorized under section 1440(c), there are au-  
15 thorized to be appropriated to the Secretary for carrying  
16 out activities under this section—

- 17           (1) \$150,000,000 for fiscal year 2003;  
18           (2) \$175,000,000 for fiscal year 2004;  
19           (3) \$200,000,000 for fiscal year 2005; and  
20           (4) \$230,000,000 for fiscal year 2006.

21       (d) LIMITATION ON FUNDS.—Funds authorized to be  
22 appropriated under this section shall not be used for the  
23 development, demonstration, or deployment of technology  
24 to reduce, avoid, or sequester greenhouse gas emissions.

1 **SEC. 1303. AMENDMENTS TO THE FEDERAL NONNUCLEAR**  
2 **RESEARCH AND DEVELOPMENT ACT OF 1974.**

3 Section 6 of the Federal Nonnuclear Energy Re-  
4 search and Development Act of 1974 (42 U.S.C. 5905)  
5 is amended—

6 (1) in subsection (a)—

7 (A) in paragraph (2), by striking “and” at  
8 the end;

9 (B) in paragraph (3) by striking the period  
10 at the end and inserting “, and”; and

11 (C) by adding at the end the following:

12 “(4) solutions to the effective management of  
13 greenhouse gas emissions in the long term by the de-  
14 velopment of technologies and practices designed  
15 to—

16 “(A) reduce or avoid anthropogenic emis-  
17 sions of greenhouse gases;

18 “(B) remove and sequester greenhouse  
19 gases from emissions streams; and

20 “(C) remove and sequester greenhouse  
21 gases from the atmosphere.”; and

22 (2) in subsection (b)—

23 (A) in paragraph (2), by striking “sub-  
24 section (a)(1) through (3)” and inserting

25 “paragraphs (1) through (4) of subsection (a)”;  
26 and

- 1 (B) in paragraph (3)—
- 2 (i) in subparagraph (R), by striking
- 3 “and” at the end;
- 4 (ii) in subparagraph (S), by striking
- 5 the period at the end and inserting “;
- 6 and”; and
- 7 (iii) by adding at the end the fol-
- 8 lowing:
- 9 “(T) to pursue a long-term climate tech-
- 10 nology strategy designed to demonstrate a vari-
- 11 ety of technologies by which stabilization of
- 12 greenhouse gases might be best achieved, in-
- 13 cluding accelerated research, development, dem-
- 14 onstration and deployment of—
- 15 “(i) renewable energy systems;
- 16 “(ii) advanced fossil energy tech-
- 17 nology;
- 18 “(iii) advanced nuclear power plant
- 19 design;
- 20 “(iv) fuel cell technology for residen-
- 21 tial, industrial and transportation applica-
- 22 tions;
- 23 “(v) carbon sequestration practices
- 24 and technologies, including agricultural

1 and forestry practices that store and se-  
2 quester carbon;

3 “(vi) efficient electrical generation,  
4 transmission and distribution technologies;  
5 and

6 “(vii) efficient end use energy tech-  
7 nologies.”.

8 **Subtitle B—Department of**  
9 **Agriculture Programs**

10 **SEC. 1311. CARBON SEQUESTRATION BASIC AND APPLIED**  
11 **RESEARCH.**

12 (a) BASIC RESEARCH.—

13 (1) IN GENERAL.—The Secretary of Agriculture  
14 shall carry out research in the areas of soil science  
15 that promote understanding of—

16 (A) the net sequestration of organic carbon  
17 in soil; and

18 (B) net emissions of other greenhouse  
19 bases from agriculture.

20 (2) Agricultural Research Service.—The Sec-  
21 retary of Agriculture, acting through the Agricul-  
22 tural Research Service, shall collaborate with other  
23 Federal agencies in developing data and carrying out  
24 research addressing soil carbon fluxes (losses and  
25 gains) and net emissions of methane and nitrous

1 oxide from cultivation and animal management ac-  
2 tivities.

3 (3) 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 carry out research on the matters described in  
10 paragraph (1) in land grant universities and  
11 other research institutions.

12 (B) CONSULTATION ON RESEARCH TOP-  
13 ICS.—Before issuing a request for proposals for  
14 basic research under paragraph (1), the Coop-  
15 erative State Research, Education, and Exten-  
16 sion Service shall consult with the Agricultural  
17 Research Service to ensure that proposed re-  
18 search areas are complementary with and do  
19 not duplicate research projects underway at the  
20 Agricultural Research Service or other Federal  
21 agencies.

22 (b) APPLIED RESEARCH.—

23 (1) IN GENERAL.—The Secretary of Agriculture  
24 shall carry out applied research in the areas of soil

1 science, agronomy, agricultural economics and other  
2 agricultural sciences to—

3 (A) promote understanding of—

4 (i) how agricultural and forestry prac-  
5 tices affect the sequestration of organic  
6 and inorganic carbon in soil and net emis-  
7 sions of other greenhouse gases;

8 (ii) how changes in soil carbon pools  
9 are cost-effectively measured, monitored,  
10 and verified; and

11 (iii) how public programs and private  
12 market approaches can be devised to incor-  
13 porate carbon sequestration in a broader  
14 societal greenhouse gas emission reduction  
15 effort;

16 (B) develop methods for establishing base-  
17 lines for measuring the quantities of carbon and  
18 other greenhouse gases sequestered; and

19 (C) evaluate leakage and performance  
20 issues.

21 (2) REQUIREMENTS.—To the maximum extent  
22 practicable, applied research under paragraph (1)  
23 shall—

24 (A) draw on existing technologies and  
25 methods; and

1 (B) strive to provide methodologies that  
2 are accessible to a nontechnical audience.

3 (3) MINIMIZATION OF ADVERSE ENVIRON-  
4 MENTAL IMPACTS.—All applied research under para-  
5 graph (1) shall be conducted with an emphasis on  
6 minimizing adverse environmental impacts.

7 (4) NATURAL RESOURCES CONSERVATION  
8 SERVICE.—The Secretary of Agriculture, acting  
9 through the Natural Resources Conservation Service,  
10 shall collaborate with other Federal agencies, includ-  
11 ing the National Institute of Standards and Tech-  
12 nology, in developing new measuring techniques and  
13 equipment or adapting existing techniques and  
14 equipment to enable cost-effective and accurate mon-  
15 itoring and verification, for a wide range of agricul-  
16 tural and forestry practices, of—

17 (A) changes in soil carbon content in agri-  
18 cultural soils, plants, and trees; and

19 (B) net emissions of other greenhouse  
20 gases.

21 (5) COOPERATIVE STATE RESEARCH EXTEN-  
22 SION AND EDUCATION SERVICE.—

23 (A) IN GENERAL.—The Secretary of Agri-  
24 culture, acting through the Cooperative State  
25 Research Extension and Education Service,

1 shall establish a competitive grant program to  
2 encourage research on the matters described in  
3 paragraph (1) by land grant universities and  
4 other research institutions.

5 (B) CONSULTATION ON RESEARCH TOP-  
6 ICS.—Before issuing a request for proposals for  
7 applied research under paragraph (1), the Co-  
8 operative State Research, Education, and Ex-  
9 tension Service shall consult with the National  
10 Resources Conservation Service and the Agri-  
11 cultural Research Service to ensure that pro-  
12 posed research areas are complementary with  
13 and do not duplicate research projects under-  
14 way at the Agricultural Research Service or  
15 other Federal agencies.

16 (c) RESEARCH CONSORTIA.—

17 (1) IN GENERAL.—The Secretary of Agriculture  
18 may designate not more than 2 research consortia to  
19 carry out research projects under this section, with  
20 the requirement that the consortia propose to con-  
21 duct basic, research under subsection (a) and ap-  
22 plied research under subsection (b).

23 (2) SELECTION.—The consortia shall be se-  
24 lected in a competitive manner by the Cooperative  
25 State Research, Education, and Extension Service.

1           (3) ELIGIBLE CONSORTIUM PARTICIPANTS.—

2           Entities eligible to participate in a consortium  
3           include—

4                   (A) land grant colleges and universities;

5                   (B) private research institutions;

6                   (C) State geological surveys;

7                   (D) agencies of the Department of Agri-  
8           culture;

9                   (E) research centers of the National Aero-  
10           nautics and Space Administration and the De-  
11           partment of Energy;

12                   (F) other Federal agencies;

13                   (G) representatives of agricultural busi-  
14           nesses and organizations with demonstrated ex-  
15           pertise in these areas; and

16                   (H) representatives of the private sector  
17           with demonstrated expertise in these areas.

18           (4) RESERVATION OF FUNDING.—If the Sec-  
19           retary of Agriculture designates 1 or 2 consortia, the  
20           Secretary of Agriculture shall reserve for research  
21           projects carried out by the consortium or consortia  
22           not more than 25 percent of the amounts made  
23           available to carry out this section for a fiscal year.

24           (d) STANDARDS OF PRECISION.—

1           (1) CONFERENCE.—Not later than 3 years  
2 after the date of enactment of this subtitle, the Sec-  
3 retary of Agriculture, acting through the Agricul-  
4 tural Research Service and in consultation with the  
5 Natural Resources Conservation Service, shall con-  
6 vene a conference of key scientific experts on carbon  
7 sequestration and measurement techniques from var-  
8 ious sectors (including the government, academic,  
9 and private sectors) to—

10           (A) discuss and establish benchmark  
11 standards of precision for measuring soil carbon  
12 content and net emissions of other greenhouse  
13 gases;

14           (B) designate packages of measurement  
15 techniques and modeling approaches to achieve  
16 a level of precision agreed on by the partici-  
17 pants in the conference; and

18           (C) evaluate results of analyses on base-  
19 line, permanence, and leakage issues.

20           (2) REPORT.—Not later than 180 days after  
21 the conclusion of the conference under paragraph  
22 (1), the Secretary of Agriculture shall submit to the  
23 Committee on Agriculture of the House of Rep-  
24 resentatives and the Committee on Agriculture, Nu-

1 trition, and Forestry of the Senate a report on the  
2 results of the conference.

3 (e) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) IN GENERAL.—There are authorized to be  
5 appropriated to carry out this section \$25,000,000  
6 for each of fiscal years 2003 through 2006.

7 (2) ALLOCATION.—Of the amounts made avail-  
8 able to carry out this section for a fiscal year, at  
9 least 50 percent shall be allocated for competitive  
10 grants by the Cooperative State Research, Edu-  
11 cation, and Extension Service.

12 **SEC. 1312. CARBON SEQUESTRATION DEMONSTRATION**  
13 **PROJECTS AND OUTREACH.**

14 (a) DEMONSTRATION PROJECTS.—

15 (1) DEVELOPMENT OF MONITORING PRO-  
16 GRAMS.—

17 (A) IN GENERAL.—The Secretary of Agri-  
18 culture, acting through the Natural Resources  
19 Conservation Service and in cooperation with  
20 local extension agents, experts from land grant  
21 universities, and other local agricultural or con-  
22 servation organizations, shall develop user-  
23 friendly, programs that combine measurement  
24 tools and modeling techniques into integrated  
25 packages to monitor the carbon sequestering

1 benefits of conservation practices and net  
2 changes in greenhouse gas emissions.

3 (B) BENCHMARK LEVELS OF PRECISION.—

4 The programs developed under subparagraph  
5 (A) shall strive to achieve benchmark levels of  
6 precision in measurement in a cost-effective  
7 manner.

8 (2) PROJECTS.—

9 (A) IN GENERAL.—The Secretary of Agri-  
10 culture, acting through the Farm Service Agen-  
11 cy, shall establish a program under which  
12 projects use the monitoring programs developed  
13 under paragraph (1) to demonstrate the feasi-  
14 bility of methods of measuring, verifying, and  
15 monitoring—

16 (i) changes in organic carbon content  
17 and other carbon pools in agricultural  
18 soils, plants, and trees; and

19 (ii) net changes in emissions of other  
20 greenhouse gases.

21 (B) EVALUATION OF IMPLICATIONS.—The  
22 projects under subparagraph (A) shall include  
23 evaluation of the implications for reassessed  
24 baselines, carbon or other greenhouse gas leak-  
25 age, and permanence of sequestration.

1           (C) SUBMISSION OF PROPOSALS.—Pro-  
2           posals for projects under subparagraph (A)  
3           shall be submitted by the appropriate agency of  
4           each State, in cooperation with interested local  
5           jurisdictions and State agricultural and con-  
6           servation organizations.

7           (D) LIMITATION.—Not more than 10  
8           projects under subparagraph (A) may be ap-  
9           proved in conjunction with applied research  
10          projects under section 1331(b) until benchmark  
11          measurement and assessment standards are es-  
12          tablished under section 1331(d).

13         (b) OUTREACH.—

14           (1) IN GENERAL.—The Cooperative State Re-  
15           search Extension and Education Service shall widely  
16           disseminate information about the economic and en-  
17           vironmental benefits that can be generated by adop-  
18           tion of conservation practices (including benefits  
19           from increased sequestration of carbon and reduced  
20           emission of other greenhouse gases.

21           (2) PROJECT RESULTS.—The Cooperative State  
22           Research Extension and Education Service shall in-  
23           form farmers, ranchers, and State agricultural and  
24           energy offices in each State of—

1 (A) the results of demonstration projects  
2 under subsection (a)(2) in the State; and

3 (B) the ways in which the methods dem-  
4 onstrated in the projects might be applicable to  
5 the operations of those farmers and ranchers.

6 (3) POLICY OUTREACH.—On a periodic basis,  
7 the Cooperative State Research Extension and Edu-  
8 cation Service shall disseminate information on the  
9 police nexus between global climate change mitiga-  
10 tion strategies and agriculture, so that farmers and  
11 ranchers may better understand the global implica-  
12 tions of the activities of farmers and ranchers.

13 (c) AUTHORIZATION OF APPROPRIATIONS.—

14 (1) IN GENERAL.—There are authorized to be  
15 appropriated to carry out this section \$10,000,000  
16 for each of fiscal years 2003 through 2006.

17 (2) ALLOCATION.—Of the amounts made avail-  
18 able to carry out this section for a fiscal year, at  
19 least 50 percent shall be allocated for demonstration  
20 projects under subsection (a)(2).

21 SUBTITLE C—CLEAN ENERGY TECHNOLOGY EXPORTS

22 PROGRAM

23 **SEC. 1321. CLEAN ENERGY TECHNOLOGY EXPORTS PRO-**  
24 **GRAM.**

25 (a) DEFINITIONS.—In this section:

1           (1) CLEAN ENERGY TECHNOLOGY.—The term  
2           “clean energy technology” means an energy supply  
3           or end-use technology that, over its lifecycle and  
4           compared to a similar technology already in commer-  
5           cial use in developing countries, countries in transi-  
6           tion, and other partner countries—

7                   (A) emits substantially lower levels of pol-  
8                   lutants or greenhouse gases; and

9                   (B) may generate substantially smaller or  
10                  less toxic volumes of solid or liquid waste.

11          (2) INTERAGENCY WORKING GROUP.—The term  
12          “interagency working group” means the Interagency  
13          Working Group on Clean Energy Technology Ex-  
14          ports established under subsection (b).

15          (b) INTERAGENCY WORKING GROUP.—

16                (1) ESTABLISHMENT.—Not later than 90 days  
17                after the date of enactment of this section, the Sec-  
18                retary of Energy, the Secretary of Commerce, and  
19                the Administrator of the U.S. Agency for Inter-  
20                national Development shall jointly establish a Inter-  
21                agency Working Group on Clean Energy Technology  
22                Exports. The interagency working group will focus  
23                on opening and expanding energy markets and  
24                transferring clean energy technology to the devel-  
25                oping countries, countries in transition, and other

1 partner countries that are expected to experience,  
2 over the next 20 years, the most significant growth  
3 in energy production and associated greenhouse gas  
4 emissions, including through technology transfer  
5 programs under the Framework Convention on Cli-  
6 mate Change, other international agreements, and  
7 relevant Federal efforts.

8 (2) MEMBERSHIP.—The interagency working  
9 group shall be jointly chaired by representatives ap-  
10 pointed by the agency heads under paragraph (1)  
11 and shall also include representatives from the De-  
12 partment of State, the Department of Treasury, the  
13 Environmental Protection Agency, the Export-Im-  
14 port Bank, the Overseas Private Investment Cor-  
15 poration, the Trade and Development Agency, and  
16 other federal agencies as deemed appropriate by all  
17 three agency heads under paragraph (1).

18 (3) DUTIES.—The interagency working group  
19 shall—

20 (A) analyze technology, policy, and market  
21 opportunities for international development,  
22 demonstration, and deployment of clean energy  
23 technology;

24 (B) investigate issues associated with  
25 building capacity to deploy clean energy tech-

1 nology in developing countries, countries in  
2 transition, and other partner countries,  
3 including—

4 (i) energy-sector reform;

5 (ii) creation of open, transparent, and  
6 competitive markets for energy tech-  
7 nologies;

8 (iii) availability of trained personnel  
9 to deploy and maintain the technology; and

10 (iv) demonstration and cost-buydown  
11 mechanisms to promote first adoption of  
12 the technology;

13 (C) examine relevant trade, tax, inter-  
14 national, and other policy issues to assess what  
15 policies would help open markets and improve  
16 U.S. clean energy technology exports in support  
17 of the following areas:

18 (i) enhancing energy innovation and  
19 cooperation, including energy sector and  
20 market reform, capacity building, and fi-  
21 nancing measures;

22 (ii) improving energy end-use effi-  
23 ciency technologies, including buildings and  
24 facilities, vehicle, industrial, and co-genera-  
25 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  
10 plan submitted to Congress pursuant to the En-  
11 ergy and Water Development Appropriations  
12 Act, 2001, and the Energy and Water Develop-  
13 ment 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 improve each  
17 agency's role in the international development,  
18 demonstration, and deployment of clean energy  
19 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 carry out this section \$100,000,000 for each  
 13           of fiscal years 2003 through 2011, to remain avail-  
 14           able until expended.”.

15           **Subtitle D—Climate Change**  
 16           **Science and Information**

17           **PART I—AMENDMENTS TO THE GLOBAL CHANGE**  
 18           **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” 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           (1) by striking “Weather and climate change  
2           affect” in paragraph (1) and inserting “Weather, cli-  
3           mate change, and long-term weather fluctuations af-  
4           fect public safety, environmental security, human  
5           health,”;

6           (2) by striking “climate” in paragraph (2) and  
7           inserting “climate, including seasonal and decadal  
8           fluctuations,”;

9           (3) by striking “changes.” in paragraph (5) and  
10          inserting “changes and providing free exchange of  
11          meteorological data.”; and

12          (4) by adding at the end the following:

13          “(7) The present rate of advance in research  
14          and development is inadequate and new develop-  
15          ments must be incorporated rapidly into services for  
16          the benefit of the public.

17          “(8) The United States lacks adequate infra-  
18          structure and research to meet national climate  
19          monitoring and prediction needs.”.

20   **SEC. 1343. TOOLS FOR REGIONAL PLANNING.**

21          Section 5(d) (15 U.S.C. 2904(d)) is amended—

22                 (1) by redesignating paragraphs (4) through  
23                 (9) as paragraphs (5) through (10), respectively;

24                 (2) by inserting after paragraph (3) the fol-  
25                 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  
25 high-end climate modeling and a regular schedule of

1 projections on a long and short term time schedules  
2 and at a 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.”.

18 **SEC. 1346. REPORTING ON TRENDS.**

19 (a) **ATMOSPHERIC MONITORING AND VERIFICATION**  
20 **PROGRAM.**—The Secretary of Commerce, in coordination  
21 with relevant Federal agencies, shall, as part of the Na-  
22 tional Climate Service, establish an atmospheric moni-  
23 toring and verification program utilizing aircraft, satellite,  
24 ground sensors, and modeling capabilities to monitor,  
25 measure, and verify atmospheric greenhouse gas levels,

1 dates, and emissions. Where feasible, the program shall  
2 measure emissions from identified sources participating in  
3 the reporting system for verification purposes. The pro-  
4 gram shall use measurements and standards that are con-  
5 sistent with those utilized in the greenhouse gas measure-  
6 ment and reporting system established under subsection  
7 (a) and the registry established under section 1102.

8 (b) ANNUAL REPORTING.—The Secretary of Com-  
9 merce shall issue an annual report that identifies green-  
10 house emissions and trends on a local, regional, and na-  
11 tional level. The report shall also identify emissions or re-  
12 ductions attributable to individual or multiple sources cov-  
13 ered by the greenhouse gas measurement and reporting  
14 system established under section 1102.

### 15 **PART III—OCEAN AND COASTAL OBSERVING**

#### 16 **SYSTEM**

##### 17 **SEC. 1351. OCEAN AND COASTAL OBSERVING SYSTEM.**

18 (a) ESTABLISHMENT.—The President, through the  
19 National Ocean Research Leadership Council, established  
20 by section 7902(a) of title 10, United States Code, shall  
21 establish and maintain an integrated ocean and coastal ob-  
22 serving system that provides for long-term, continuous,  
23 and real-time observations of the oceans and coasts for  
24 the purposes of—

1           (1) understanding, assessing and responding to  
2           human-induced and natural processes of global  
3           change;

4           (2) improving weather forecasts and public  
5           warnings;

6           (3) strengthening national security and military  
7           preparedness;

8           (4) enhancing the safety and efficiency of ma-  
9           rine operations;

10          (5) supporting efforts to restore the health of  
11          and manage coastal and marine ecosystems and liv-  
12          ing resources;

13          (6) monitoring and evaluating the effectiveness  
14          of ocean and coastal environmental policies;

15          (7) reducing and mitigating ocean and coastal  
16          pollution; and

17          (8) providing information that contributes to  
18          public awareness of the state and importance of the  
19          oceans.

20          (b) COUNCIL FUNCTIONS.—In addition to its respon-  
21          sibilities under section 7902(a) of such title, the Council  
22          shall be responsible for planning and coordinating the ob-  
23          serving system and in carrying out this responsibility  
24          shall—

1           (1) develop and submit to the Congress, within  
2           6 months after the date of enactment of this Act, a  
3           plan for implementing a national ocean and coastal  
4           observing system that—

5                   (A) uses an end-to end engineering and de-  
6                   velopment approach to develop a system design  
7                   and schedule for operational implementation;

8                   (B) determines how current and planned  
9                   observing activities can be integrated in a cost-  
10                  effective manner;

11                  (C) provides for regional and concept dem-  
12                  onstration projects;

13                  (D) describes the role and estimated budg-  
14                  et of each Federal agency in implementing the  
15                  plan;

16                  (E) contributes, to the extent practicable,  
17                  to the National Global Change Research Plan  
18                  under section 104 of the Global Change Re-  
19                  search Act of 1990 (15 U.S.C. 2934); and

20                  (F) makes recommendations for coordina-  
21                  tion of ocean observing activities of the United  
22                  States with those of other nations and inter-  
23                  national organizations;

24           (2) serve as the mechanism for coordinating  
25           Federal ocean observing requirements and activities;

1           (3) work with academic, State, industry and  
2 other actual and potential users of the observing sys-  
3 tem to make effective use of existing capabilities and  
4 incorporate new technologies;

5           (4) approve standards and protocols for the ad-  
6 ministration of the system, including—

7                 (A) a common set of measurements to be  
8 collected and distributed routinely and by uni-  
9 form methods;

10                (B) standards for quality control and as-  
11 sessment of data;

12                (C) design, testing and employment of  
13 forecast models for ocean conditions;

14                (D) data management, including data  
15 transfer protocols and archiving; and

16                (E) designation of coastal ocean observing  
17 regions; and

18           (5) in consultation with the Secretary of State,  
19 provide representation at international meetings on  
20 ocean observing programs and coordinate relevant  
21 Federal activities with those of other nations.

22           (c) SYSTEM ELEMENTS.—The integrated ocean and  
23 coastal observing system shall include the following ele-  
24 ments:

1           (1) A nationally coordinated network of regional  
2 coastal ocean observing systems that measure and  
3 disseminate a common set of ocean observations and  
4 related products in a uniform manner and according  
5 to sound scientific practice, but that are adapted to  
6 local and regional needs.

7           (2) Ocean sensors for climate observations, in-  
8 cluding the Arctic Ocean and sub-polar seas.

9           (3) Coastal, relocatable, and cabled sea floor  
10 observatories.

11           (4) Broad bandwidth communications that are  
12 capable of transmitting high volumes of data from  
13 open ocean locations at low cost and in real time.

14           (5) Ocean data management and assimilation  
15 systems that ensure full use of new sources of data  
16 from space-borne and in situ sensors.

17           (6) Focused research programs.

18           (7) Technology development program to develop  
19 new observing technologies and techniques, including  
20 data management and dissemination.

21           (8) Public outreach and education.

22 **SEC. 1352. AUTHORIZATION OF APPROPRIATIONS.**

23           For development and implementation of an inte-  
24 grated ocean and coastal observation system under this  
25 title, including financial assistance to regional coastal

1 ocean observing systems, there are authorized to be appro-  
2 priated \$235,000,000 in fiscal year 2003, \$315,000,000  
3 in fiscal year 2004, \$390,000,000 in fiscal year 2005, and  
4 \$445,000,000 in fiscal year 2006.

5           **Subtitle E—Climate Change**  
6                           **Technology**

7 **SEC. 1361. NIST GREENHOUSE GAS FUNCTIONS.**

8           Section 2(c) of the National Institute of Standards  
9 and Technology Act (15 U.S.C. 272(c) is amended—

10                   (1) striking “and” after the semicolon in para-  
11 graph (21);

12                   (2) by redesignating paragraph (22) as para-  
13 graph (23); and

14                   (3) by inserting after paragraph (21) the fol-  
15 lowing:

16                   “(22) perform research to develop enhanced  
17 measurements, calibrations, standards, and tech-  
18 nologies which will enable the reduced production in  
19 the United States of greenhouse gases associated  
20 with global warming, including carbon dioxide, meth-  
21 ane, nitrous oxide, ozone, perfluorocarbons,  
22 hydrofluorocarbons, and sulphur hexafluoride; and”.

1 **SEC. 1362. DEVELOPMENT OF NEW MEASUREMENT TECH-**  
2 **NOLOGIES.**

3 (a) IN GENERAL.—The Secretary of Commerce shall  
4 initiate a program to develop, with technical assistance  
5 from appropriate Federal agencies, innovative standards  
6 and measurement technologies (including technologies to  
7 measure carbon changes due to changes in land use cover)  
8 to calculate—

9 (1) greenhouse gas emissions and reductions  
10 from agriculture, forestry, and other land use prac-  
11 tices;

12 (2) non-carbon dioxide greenhouse gas emis-  
13 sions from transportation;

14 (3) greenhouse gas emissions from facilities or  
15 sources using remote sensing technology; and

16 (4) any other greenhouse gas emission or reduc-  
17 tions for which no accurate or reliable measurement  
18 technology exists.

19 **SEC. 1363. ENHANCED ENVIRONMENTAL MEASUREMENTS**  
20 **AND STANDARDS.**

21 The National Institute of Standards and Technology  
22 Act (15 U.S.C. 271 et seq.) is amended—

23 (1) by redesignating sections 17 through 32 as  
24 sections 18 through 33, respectively; and

25 (2) by inserting after section 16 the following:

1 **“SEC. 17. CLIMATE CHANGE STANDARDS AND PROCESSES.**

2       “(a) IN GENERAL.—The Director shall establish  
3 within the Institute a program to perform and support re-  
4 search on global climate change standards and processes,  
5 with the goal of providing scientific and technical knowl-  
6 edge applicable to the reduction of greenhouse gases (as  
7 defined in section 4 of the Global Climate Change Act of  
8 2002).

9       “(b) RESEARCH PROGRAM.—

10           “(1) IN GENERAL.—The Director is authorized  
11 to conduct, directly or through contracts or grants,  
12 a global climate change standards and processes re-  
13 search program.

14           “(2) RESEARCH PROJECTS.—The specific con-  
15 tents and priorities of the research program shall be  
16 determined in consultation with appropriate Federal  
17 agencies, including the Environmental Protection  
18 Agency, the National Oceanic and Atmospheric Ad-  
19 ministration, and the National Aeronautics and  
20 Space Administration. The program generally shall  
21 include basic and applied research—

22           “(A) to develop and provide the enhanced  
23 measurements, calibrations, data, models, and  
24 reference material standards which will enable  
25 the monitoring of greenhouse gases;

1           “(B) to assist in establishing of a baseline  
2           reference point for future trading in greenhouse  
3           gases and the measurement of progress in emis-  
4           sions reduction;

5           “(C) that will be exchanged internationally  
6           as scientific or technical information which has  
7           the stated purpose of developing mutually rec-  
8           ognized measurements, standards, and proce-  
9           dures for reducing greenhouse gases; and

10           “(D) to assist in developing improved in-  
11           dustrial processes designed to reduce or elimi-  
12           nated greenhouse gases.

13           “(c) NATIONAL MEASUREMENT LABORATORIES.—

14           “(1) IN GENERAL.—In carrying out this sec-  
15           tion, the Director shall utilize the collective skills of  
16           the National Measurement Laboratories of the Na-  
17           tional Institute of Standards and Technology to im-  
18           prove the accuracy of measurements that will permit  
19           better understanding and control of these industrial  
20           chemical processes and result in the reduction or  
21           elimination of greenhouse gases.

22           “(2) MATERIAL, PROCESS, AND BUILDING RE-  
23           SEARCH.—The National Measurement Laboratories  
24           shall conduct research under this subsection that  
25           includes—

1           “(A) developing material and manufac-  
2           turing processes which are designed for energy  
3           efficiency and reduced greenhouse gas emissions  
4           into the environment;

5           “(B) developing environmentally-friendly,  
6           ‘green’ chemical processes to be used by indus-  
7           try; and

8           “(C) enhancing building performance with  
9           a focus in developing standards or tools which  
10          will help incorporate low or no-emission tech-  
11          nologies into building designs.

12          “(3) STANDARDS AND TOOLS.—The National  
13          Measurement Laboratories shall develop standards  
14          and tools under this subsection that include software  
15          to assist designers in selecting alternate building  
16          materials, performance data on materials, artificial  
17          intelligence-aided design procedures for building sub-  
18          systems and ‘smart buildings’, and improved test  
19          methods and rating procedures for evaluating the  
20          energy performance of residential and commercial  
21          appliances and products.

22          “(d) NATIONAL VOLUNTARY LABORATORY ACCREDI-  
23          TATION PROGRAM.—The Director shall utilize the Na-  
24          tional Voluntary Laboratory Accreditation Program under  
25          this section to establish a program to include specific cali-

1 bration or test standards and related methods and proto-  
2 cols assembled to satisfy the unique needs for accredita-  
3 tion in measuring the production of greenhouse gases. In  
4 carrying out this subsection the Director may cooperate  
5 with other departments and agencies of the Federal Gov-  
6 ernment, State and local governments, and private organi-  
7 zations.”.

8 **SEC. 1364. TECHNOLOGY DEVELOPMENT AND DIFFUSION.**

9 (a) **ADVANCED TECHNOLOGY PROGRAM COMPETI-**  
10 **TIONS.**—The Director of the National Institute of Stand-  
11 ards and Technology, through the Advanced Technology  
12 Program, may hold a portion of the Institute’s competi-  
13 tions in thematic areas, selected after consultation with  
14 industry, academics, and other Federal Agencies, designed  
15 to develop and commercialize enabling technologies to ad-  
16 dress global climate change by significantly reducing  
17 greenhouse gas emissions and concentrations in the at-  
18 mosphere.

19 (b) **MANUFACTURING EXTENSION PARTNERSHIP**  
20 **PROGRAM FOR “GREEN” MANUFACTURING.**—The Direc-  
21 tor of the National Institute of Standards and Technology,  
22 through the Manufacturing Extension Partnership Pro-  
23 gram, may develop a program to support the implementa-  
24 tion of new “green” manufacturing technologies and tech-  
25 niques by the more than 380,000 small manufacturers.

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 and

7 (2) build upon predictions and other informa-  
8 tion developed in the National Assessments prepared  
9 under the Global Change Research Act of 1990 (15  
10 U.S.C. 2921 et seq.).

11 (d) PREPAREDNESS RECOMMENDATIONS.—The pro-  
12 gram shall submit a report to Congress within 2 years  
13 after the date of enactment of this Act that identifies and  
14 recommends implementation and funding strategies for  
15 short- and long-term actions that may be taken at the na-  
16 tional, regional, State, and local level—

17 (1) to minimize threats to human life and prop-  
18 erty;

19 (2) to improve resilience to hazards;

20 (3) to minimize economic impacts; and

21 (4) to reduce threats to critical biological and  
22 ecological processes.

23 (e) INFORMATION AND TECHNOLOGY.—The Sec-  
24 retary shall make available appropriate information and  
25 other technologies and products that will assist national,

1 regional, State, and local efforts to reduce loss of life and  
2 property, and coordinate dissemination of such tech-  
3 nologies and products through the Global Disaster Infor-  
4 mation Network.

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 consult with the governments of Canada and Mexico  
18 as appropriate in developing such regional assessments. In  
19 preparing the regional assessments, the Secretary shall  
20 collect and compile current information on climate change,  
21 sea level rise, natural hazards, and coastal erosion and  
22 mapping, and specifically address impacts on Arctic re-  
23 gions and small island States. The regional assessments  
24 shall include an evaluation of—

1           (1) social impacts associated with threats to  
2           and potential losses of housing, communities, and in-  
3           frastructure;

4           (2) physical impacts such as coastal erosion,  
5           flooding and loss of estuarine habitat, saltwater in-  
6           trusion of aquifers and saltwater encroachment, and  
7           species migration; and

8           (3) economic impact on local, State, and re-  
9           gional economies, including the impact on abundance  
10          or distribution of economically important living ma-  
11          rine resources.

12          (b) COASTAL ADAPTATION PLAN.—The Secretary  
13 shall, within 3 years after the date of enactment of this  
14 Act, submit to the Congress a national coastal adaptation  
15 plan, composed of individual regional adaptation plans  
16 that recommend targets and strategies to address coastal  
17 impacts associated with climate change, sea level rise, or  
18 climate variability. The plan shall be developed with the  
19 participation of other Federal, State, and local govern-  
20 ment agencies that will be critical in the implementation  
21 of the plan at the State and local levels. The regional plans  
22 that will make up the national coastal adaptation plan  
23 shall be based on the information contained in the regional  
24 assessments and shall identify special needs associated  
25 with Arctic areas and small island States. The Plan shall

1 recommend both short- and long-term adaptation strate-  
2 gies and shall include recommendations regarding—

3           (1) Federal flood insurance program modifica-  
4 tions;

5           (2) areas that have been identified as high risk  
6 through mapping and assessment;

7           (3) mitigation incentives such as rolling ease-  
8 ments, strategic retreat, State or Federal acquisition  
9 in fee simple or other interest in land, construction  
10 standards, and zoning;

11           (4) land and property owner education;

12           (5) economic planning for small communities  
13 dependent upon affected coastal resources, including  
14 fisheries; and

15           (6) funding requirements and mechanisms.

16       (c) TECHNICAL PLANNING ASSISTANCE.—The Sec-  
17 retary, through the National Ocean Service, shall establish  
18 a coordinated program to provide technical planning as-  
19 sistance and products to coastal States and local govern-  
20 ments as they develop and implement adaptation or miti-  
21 gation strategies and plans. Products, information, tools  
22 and technical expertise generated from the development of  
23 the regional assessments and the regional adaptation  
24 plans will be made available to coastal States for the pur-  
25 poses of developing their own State and local plans.

1 (d) COASTAL ADAPTATION GRANTS.—The Secretary  
2 shall provide grants of financial assistance to coastal  
3 States with Federally approved coastal zone management  
4 programs to develop and begin implementing coastal adap-  
5 tation programs if the State provides a Federal-to-State  
6 match of 4 to 1 in the first fiscal year, 2.3 to 1 in the  
7 second fiscal year, 2 to 1 in the third fiscal year, and 1  
8 to 1 thereafter. Distribution of these funds to coastal  
9 states shall be based upon the formula established under  
10 section 306(c) of the Coastal Zone Management Act of  
11 1972 (16 U.S.C. 1455(c)), adjusted in consultation with  
12 the States as necessary to provide assistance to particu-  
13 larly vulnerable coastlines.

14 (e) DEFINITIONS.—In this section:

15 (1) CZMA TERMS.—Any term used in this sec-  
16 tion that is defined in section 304 of the Coastal  
17 Zone Management Act of 1972 (16 U.S.C. 1453)  
18 has the meaning given it by that section.

19 (2) SMALL-ISLAND STATE.—The term “small  
20 island State” means any jurisdiction to which ref-  
21 erence is made in section 3(30) of the Magnuson  
22 Stevens Fishery Conservation and Management Act  
23 (16 U.S.C. 1802(30)).

1 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated \$3,000,000 annually for  
3 coastal adaptation grants under subsection (d).

4 **PART II—FORECASTING AND PLANNING PILOT**  
5 **PROGRAMS**

6 **SEC. 1381. REMOTE SENSING PILOT PROJECTS.**

7 (a) IN GENERAL.—The Administrator of the Na-  
8 tional Aeronautics and Space Administration shall estab-  
9 lish, through the National Oceanic and Atmospheric Ad-  
10 ministration’s Coastal Services Center, a program of  
11 grants for competitively awarded pilot projects to explore  
12 the integrated use of sources of remote sensing and other  
13 geospatial information to address State, local, regional,  
14 and tribal agency needs to forecast a plan for adaptation  
15 to coastal zone and land use changes that may result as  
16 a consequence of global climate change or climate varia-  
17 bility.

18 (b) PREFERRED PROJECTS.—In awarding grants  
19 under this section, the Center shall give preference to  
20 projects that—

21 (1) focus on areas that are most sensitive to the  
22 consequences of global climate change or climate  
23 variability;

24 (2) make use of existing public or commercial  
25 data sets;

1           (3) integrate multiple sources of geospatial in-  
2           formation, such as geographic information system  
3           data, satellite-provided positioning data, and re-  
4           motely sensed data, in innovative ways;

5           (4) offer diverse, innovative approaches that  
6           may serve as models for establishing a future coordi-  
7           nated framework for planning strategies for adapta-  
8           tion to coastal zone and land use changes related to  
9           global climate change or climate variability;

10          (5) include funds or in-kind contributions from  
11          non-Federal sources;

12          (6) involve the participation of commercial enti-  
13          ties that process raw or lightly processed data, often  
14          merging that data with other geospatial information,  
15          to create data products that have significant value  
16          added to the original data; and

17          (7) taken together demonstrate as diverse a set  
18          of public sector applications as possible.

19          (c) OPPORTUNITIES.—In carrying out this section,  
20          the Center shall seek opportunities to assist—

21                (1) in the development of commercial applica-  
22                tions potentially available from the remote sensing  
23                industry; and

24                (2) State, local, regional, and tribal agencies in  
25                applying remote sensing and other geospatial infor-

1        mation technologies for management and adaptation  
2        to coastal and land use consequences of global cli-  
3        mate change or climate variability.

4        (d) DURATION.—Assistance for a pilot project under  
5        subsection (a) shall be provided for a period of not more  
6        than 3 years.

7        (e) RESPONSIBILITIES OF GRANTEES.—Within 180  
8        days after completion of a grant project, each recipient  
9        of a grant under subsection (a) shall transmit a report  
10       to the Center on the results of the pilot project and con-  
11       duct at least one workshop for potential users to dissemi-  
12       nate the lessons learned from the pilot project as widely  
13       as feasible.

14       (f) REGULATIONS.—The Center shall issue regula-  
15       tions establishing application, selection, and implementa-  
16       tion procedures for pilot projects, and guidelines for re-  
17       ports and workshops required by this section.

18       **SEC. 1382. DATABASE ESTABLISHMENT.**

19       The Center shall establish and maintain an elec-  
20       tronic, Internet-accessible database of the results of each  
21       pilot project completed under section 531.

22       **SEC. 1383. DEFINITIONS.**

23       In this subtitle:

1           (1) CENTER.—The term “Center” means the  
2 Coastal Services Center of the National Oceanic and  
3 Atmospheric Administration.

4           (2) GEOSPATIAL INFORMATION.—The term  
5 “geospatial information” means knowledge of the  
6 nature and distribution of physical and cultural fea-  
7 tures on the landscape based on analysis of data  
8 from airborne or spaceborne platforms or other  
9 types and sources of data.

10          (3) INSTITUTION OF HIGHER EDUCATION.—The  
11 term “institution of higher education” has the  
12 meaning given that term in section 101(a) of the  
13 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

14 **SEC. 1384. AUTHORIZATION OF APPROPRIATIONS.**

15          There are authorized to be appropriated to the Ad-  
16 ministrator to carry out the provisions of this subtitle—

- 17           (1) \$17,500,000 for fiscal year 2003;  
18           (2) \$20,000,000 for fiscal year 2004;  
19           (3) \$22,500,000 for fiscal year 2005; and  
20           (4) \$25,000,000 for fiscal year 2006.

21 **TITLE XIV—MANAGEMENT OF**  
22 **DOE SCIENCE AND TECH-**  
23 **NOLOGY PROGRAMS**

24 **SEC. 1401. DEFINITIONS.**

25          In this title:

1           (1) APPLICABILITY OF DEFINITIONS.—The  
2 definitions in section 1203 shall apply.

3           (2) SINGLE-PURPOSE RESEARCH FACILITY.—  
4 The term “single-purpose research facility” means  
5 any of the following primarily single purpose entities  
6 owned by the Department of Energy—

7           (A) Ames Laboratory;

8           (B) East Tennessee Technology Park;

9           (C) Environmental Measurement Labora-  
10 tory;

11           (D) Fernald Environmental Management  
12 Project;

13           (E) Fermi National Accelerator Labora-  
14 tory;

15           (F) Kansas City Plant;

16           (G) Nevada Test Site;

17           (H) New Brunswick Laboratory;

18           (I) Pantex Weapons Facility;

19           (J) Princeton Plasma Physics Laboratory;

20           (K) Savannah River Technology Center;

21           (L) Stanford Linear Accelerator Center;

22           (M) Thomas Jefferson National Accel-  
23 erator Facility;

24           (N) Y-12 facility at Oak Ridge National  
25 Laboratory;

1 (O) Waste Isolation Pilot Plant; or

2 (P) other similar organization of the De-  
3 partment designated by the Secretary that en-  
4 gages in technology transfer, partnering, or li-  
5 censing activities.

6 **SEC. 1402. AVAILABILITY OF FUNDS.**

7 Funds authorized to be appropriated to the Depart-  
8 ment of Energy under title XII, title XIII, and title XV  
9 shall remain available until expended.

10 **SEC. 1403. COST SHARING.**

11 (a) RESEARCH AND DEVELOPMENT.—For research  
12 and development projects funded from appropriations au-  
13 thorized under subtitles A through D of title XII, the Sec-  
14 retary shall require a commitment from non-federal  
15 sources of at least 20 percent of the cost of the project.  
16 The Secretary may reduce or eliminate the non-Federal  
17 requirement under this subsection if the Secretary deter-  
18 mines that the research and development is of a basic or  
19 fundamental nature.

20 (b) DEMONSTRATION AND DEPLOYMENT.—For dem-  
21 onstration and technology deployment activities funded  
22 from appropriations authorized under subtitles A through  
23 D of title XII, the Secretary shall require a commitment  
24 from non-federal sources of at least 50 percent of the costs  
25 of the project directly and specifically related to any dem-

1 onstration or technology deployment activity. The Sec-  
2 retary may reduce or eliminate the non-federal require-  
3 ment under this subsection if the Secretary determines  
4 that the reduction is necessary and appropriate consid-  
5 ering the technological risks involved in the project and  
6 is necessary to meet one or more goals of this title.

7 (c) CALCULATION OF AMOUNT.—In calculating the  
8 amount of the non-Federal commitment under subsection  
9 (a) or (b), the Secretary shall include cash, personnel,  
10 services, equipment, and other resources.

11 **SEC. 1404. MERIT REVIEW OF PROPOSALS.**

12 Awards of funds authorized under title XII, subtitle  
13 A of title XIII, and title XV shall be made only after an  
14 independent review of the scientific and technical merit of  
15 the proposals for such awards has been made by the De-  
16 partment of Energy.

17 **SEC. 1405. EXTERNAL TECHNICAL REVIEW OF DEPART-**  
18 **MENTAL PROGRAMS.**

19 (a) NATIONAL ENERGY RESEARCH AND DEVELOP-  
20 MENT ADVISORY BOARDS.—(1) The Secretary shall estab-  
21 lish an advisory board to oversee Department research and  
22 development programs in each of the following areas—

- 23 (A) energy efficiency;  
24 (B) renewable energy;  
25 (C) fossil energy;

1 (D) nuclear energy; and

2 (E) climate change technology, with emphasis  
3 on integration, collaboration, and other special fea-  
4 tures of the cross-cutting technologies supported by  
5 the Office of Climate Change Technology.

6 (2) The Secretary may designate an existing advisory  
7 board within the Department to fulfill the responsibilities  
8 of an advisory board under this subsection, or may enter  
9 into appropriate arrangements with the National Academy  
10 of Sciences to establish such an advisory board.

11 (b) UTILIZATION OF EXISTING COMMITTEES.—The  
12 Secretary of Energy shall continue to use the scientific  
13 program advisory committees chartered under the Federal  
14 Advisory Committee Act by the Office of Science to over-  
15 see research and development programs under that Office.

16 (c) MEMBERSHIP.—Each advisory board under this  
17 section shall consist of experts drawn from industry, aca-  
18 demia, federal laboratories, research institutions, or state,  
19 local, or tribal governments, as appropriate.

20 (d) MEETINGS AND PURPOSES.—Each advisory  
21 board under this section shall meet at least semi-annually  
22 to review and advise on the progress made by the respec-  
23 tive research, development, demonstration, and technology  
24 deployment program. The advisory board shall also review  
25 the adequacy and relevance of the goals established for

1 each program by Congress and the President, and may  
2 otherwise advise on promising future directions in re-  
3 search and development that should be considered by each  
4 program.

5 **SEC. 1406. IMPROVED COORDINATION AND MANAGEMENT**  
6 **OF CIVILIAN SCIENCE AND TECHNOLOGY**  
7 **PROGRAMS.**

8 (a) **EFFECTIVE TOP-LEVEL COORDINATION OF RE-**  
9 **SEARCH AND DEVELOPMENT PROGRAMS.**—Section 202(b)  
10 of the Department of Energy Organization Act (42 U.S.C.  
11 7132(b)) is amended to read as follows:

12 “(b)(1) There shall be in the Department an Under  
13 Secretary for Energy and Science, who shall be appointed  
14 by the President, by and with the advice and consent of  
15 the Senate. The Under Secretary shall be compensated at  
16 the rate provided for at level III of the Executive Schedule  
17 under section 5314 of title 5, United States Code.

18 “(2) The Under Secretary for Energy and Science  
19 shall be appointed from among persons who—

20 “(A) have extensive background in scientific or  
21 engineering fields; and

22 “(B) are well qualified to manage the civilian  
23 research and development programs of the Depart-  
24 ment of Energy.

1       “(3) The Under Secretary for Energy and Science  
2 shall—

3           “(A) serve as the Science and Technology Advi-  
4 sor to the Secretary;

5           “(B) monitor the Department’s research and  
6 development programs in order to advise the Sec-  
7 retary with respect to any undesirable duplication or  
8 gaps in such programs;

9           “(C) advise the Secretary with respect to the  
10 well-being and management of the multipurpose lab-  
11 oratories under the jurisdiction of the Department;

12           “(D) advise the Secretary with respect to edu-  
13 cation and training activities required for effective  
14 short- and long-term basic and applied research ac-  
15 tivities of the Department;

16           “(E) advise the Secretary with respect to grants  
17 and other forms of financial assistance required for  
18 effective short- and long-term basic and applied re-  
19 search activities of the Department; and

20           “(F) exercise authority and responsibility over  
21 Assistant Secretaries carrying out energy research  
22 and development and energy technology functions  
23 under sections 203 and 209, as well as other ele-  
24 ments of the Department assigned by the Secretary.

1           (b) RECONFIGURATION OF POSITION OF DIRECTOR  
2 OF THE OFFICE OF SCIENCE.—Section 209 of the Depart-  
3 ment of Energy Organization Act (41 U.S.C. 7139) is  
4 amended to read as follows—

5           “(a) There shall be within the Department an Office  
6 of Science, to be headed by an Assistant Secretary of  
7 Science, who shall be appointed by the President, by and  
8 with the advice and consent of the Senate, and who shall  
9 be compensated at the rate provided for level IV of the  
10 Executive Schedule under section 5315 of title 5, United  
11 States Code.

12           “(b) The Assistant Secretary of Science shall be in  
13 addition to the Assistant Secretaries provided for under  
14 section 203 of this Act.

15           “(c) It shall be the duty and responsibility of the As-  
16 sistant Secretary of Science to carry out the fundamental  
17 science and engineering research functions of the Depart-  
18 ment, including the responsibility for policy and manage-  
19 ment of such research, as well as other functions vested  
20 in the Secretary which he may assign to the Assistant Sec-  
21 retary.”.

22           (c) ADDITIONAL ASSISTANT SECRETARY POSITION  
23 TO ENABLE IMPROVED MANAGEMENT OF NUCLEAR EN-  
24 ERGY ISSUES.—

1           (1) Section 203(a) of the Department of En-  
2           ergy Organization Act (42 U.S.C. 7133(a)) is  
3           amended by striking “There shall be in the Depart-  
4           ment six Assistant Secretaries” and inserting “Ex-  
5           cept as provided in section 209, there shall be in the  
6           Department seven Assistant Secretaries”.

7           (2) It is the Sense of the Senate that the lead-  
8           ership for departmental missions in nuclear energy  
9           should be at the Assistant Secretary level.

10          (d) TECHNICAL AND CONFORMING AMENDMENTS.—

11           (1) Section 202 of the Department of Energy  
12           Organization Act (42 U.S.C. 7132) is further  
13           amended by adding the following at the end:

14           “(d) There shall be in the Department an Under Sec-  
15           retary, who shall be appointed by the President, by and  
16           with the advice and consent of the Senate, and who shall  
17           perform such functions and duties as the Secretary shall  
18           prescribe, consistent with this section. The Under Sec-  
19           retary shall be compensated at the rate provided for level  
20           III of the Executive Schedule under section 5314 of title  
21           5, United States Code.

22           “(e) There shall be in the Department a General  
23           Counsel, who shall be appointed by the President, by and  
24           with the advice and consent of the Senate. The General  
25           Counsel shall be compensated at the rate provided for level

1 IV of the Executive Schedule under section 5315 of title  
2 5, United States Code.”.

3 (2) Section 5314 of title 5, United States Code,  
4 is amended by striking “Under Secretaries of En-  
5 ergy (2)” and inserting “Under Secretaries of En-  
6 ergy (3)”.

7 (3) Section 5315 of title 5, United States Code,  
8 is amended by—

9 (A) striking “Director, Office of Science,  
10 Department of Energy.”; and

11 (B) striking “Assistant Secretaries of En-  
12 ergy (6)” and inserting “Assistant Secretaries  
13 of Energy (8)”.

14 (4) The table of contents for the Depart-  
15 ment of Energy Organization Act (42 U.S.C.  
16 7101 note) is amended—

17 (A) by striking “Section 209” and insert-  
18 ing “Sec. 209”;

19 (B) by striking “213.” and inserting “Sec.  
20 213”;

21 (C) by striking “214.” and inserting “Sec.  
22 214.”;

23 (D) by striking “215.” and inserting “Sec.  
24 215.”; and

1 (E) by striking “216.” and inserting “Sec.  
2 216.”.

3 **SEC. 1407. IMPROVED COORDINATION OF TECHNOLOGY**  
4 **TRANSFER ACTIVITIES.**

5 (a) TECHNOLOGY TRANSFER COORDINATOR.—The  
6 Secretary shall appoint a Technology Transfer Coordi-  
7 nator to perform oversight of and policy development for  
8 technology transfer activities at the Department. The  
9 Technology Transfer Coordinator shall coordinate the ac-  
10 tivities of the Technology Partnerships Working Group,  
11 and shall oversee the expenditure of funds allocated to the  
12 Technology Partnership Working Group.

13 (b) TECHNOLOGY PARTNERSHIP WORKING  
14 GROUP.—The Secretary shall establish a Technology  
15 Partnership Working Group, which shall consist of rep-  
16 resentatives of the National Laboratories and single-pur-  
17 pose research facilities, to—

18 (1) coordinate technology transfer activities oc-  
19 ccurring at National Laboratories and single-purpose  
20 research facilities;

21 (2) exchange information about technology  
22 transfer practices; and

23 (3) develop and disseminate to the public and  
24 prospective technology partners information about

1 opportunities and procedures for technology transfer  
2 with the Department.

3 **SEC 1408. TECHNOLOGY INFRASTRUCTURE PROGRAM.**

4 (a) ESTABLISHMENT.—The Secretary shall establish  
5 a Technology Infrastructure Program in accordance with  
6 this section.

7 (b) PURPOSE.—The purpose of the Technology Infra-  
8 structure Program shall be to improve the ability of Na-  
9 tional Laboratories or single-purpose research facilities to  
10 support departmental missions by—

11 (1) stimulating the development of technology  
12 clusters that can support departmental missions at  
13 the National Laboratories or single-purpose research  
14 facilities;

15 (2) improving the ability of National Labora-  
16 tories or single-purpose research facilities to leverage  
17 and benefit from commercial research, technology,  
18 products, processes, and services; and

19 (3) encouraging the exchange of scientific and  
20 technological expertise between National Labora-  
21 tories or single-purpose research facilities and—

22 (A) institutions of higher education,

23 (B) technology-related business concerns,

24 (C) nonprofit institutions, and

1                   (D) agencies of State, tribal, or local gov-  
2                   ernments,  
3                   that can support departmental missions at the Na-  
4                   tional Laboratories and single-purpose research fa-  
5                   cilities.

6           (c) PROJECTS.—The Secretary shall authorize the  
7           Director of each National Laboratory or facility to imple-  
8           ment the Technology Infrastructure Program at such Na-  
9           tional Laboratory or single-purpose research facility  
10           through projects that meet the requirements of sub-  
11           sections (d) and (e).

12           (d) PROGRAM REQUIREMENTS.—Each project funded  
13           under this section shall meet the following requirements:

14                   (1) MINIMUM PARTICIPANTS.—Each project  
15                   shall at a minimum include—

16                           (A) a National Laboratory or single-pur-  
17                           pose research facility; and

18                           (B) one of the following entities—

19                                   (i) a business,

20                                   (ii) an institution of higher education,

21                                   (iii) a nonprofit institution, or

22                                   (iv) an agency of a State, local, or  
23                           tribal government.

24                   (2) COST SHARING.—

1 (A) MINIMUM AMOUNT.—Not less than 50  
2 percent of the costs of each project funded  
3 under this section shall be provided from non-  
4 Federal sources.

5 (B) QUALIFIED FUNDING AND RE-  
6 SOURCES.—

7 (i) The calculation of costs paid by  
8 the non-Federal sources to a project shall  
9 include cash, personnel, services, equip-  
10 ment, and other resources expended on the  
11 project.

12 (ii) Independent research and develop-  
13 ment expenses of government contractors  
14 that qualify for reimbursement under sec-  
15 tion 31–205–18(e) of the Federal Acquisi-  
16 tion Regulations issued pursuant to section  
17 25(c)(1) of the Office of Federal Procure-  
18 ment Policy Act (41 U.S.C. 421(c)(1))  
19 may be credited towards costs paid by non-  
20 Federal sources to a project, if the ex-  
21 penses meet the other requirements of this  
22 section.

23 (iii) No funds or other resources ex-  
24 pended either before the start of a project  
25 under this section or outside the project's

1 scope of work shall be credited toward the  
2 costs paid by the non-Federal sources to  
3 the project.

4 (3) COMPETITIVE SELECTION.—All projects in  
5 which a party other than the Department, a Na-  
6 tional Laboratory, or a single-purpose research facil-  
7 ity receives funding under this section shall, to the  
8 extent practicable, be competitively selected by the  
9 National Laboratory or facility using procedures de-  
10 termined to be appropriate by the Secretary.

11 (4) ACCOUNTING STANDARDS.—Any participant  
12 that receives funds under this section, other than a  
13 National Laboratory or single-purpose research facil-  
14 ity, may use generally accepted accounting principles  
15 for maintaining accounts, books, and records relat-  
16 ing to the project.

17 (5) LIMITATIONS.—No Federal funds shall be  
18 made available under this section for—

19 (A) construction; or

20 (B) any project for more than five years.

21 (e) SELECTION CRITERIA.—

22 (1) THRESHOLD FUNDING CRITERIA.—The Sec-  
23 retary shall allocate funds under this section only if  
24 the Director of the National Laboratory or single-  
25 purpose research facility managing the project deter-

1 mines that the project is likely to improve the ability  
2 of the National Laboratory or single-purpose re-  
3 search facility to achieve technical success in meet-  
4 ing departmental missions.

5 (2) ADDITIONAL CRITERIA.—The Secretary  
6 shall require the Director of the National Labora-  
7 tory or single-purpose research facility managing a  
8 project under this section to consider the following  
9 criteria in selecting a project to receive Federal  
10 funds—

11 (A) the potential of the project to succeed,  
12 based on its technical merit, team members,  
13 management approach, resources, and project  
14 plan;

15 (B) the potential of the project to promote  
16 the development of a commercially sustainable  
17 technology cluster, which will derive most of the  
18 demand for its products or services from the  
19 private sector, and which will support depart-  
20 mental missions at the participating National  
21 Laboratory or single-purpose research facility;

22 (C) the potential of the project to promote  
23 the use of commercial research, technology,  
24 products, processes, and services by the partici-  
25 pating National Laboratory or single-purpose

1 research facility to achieve its departmental  
2 mission or the commercial development of tech-  
3 nological innovations made at the participating  
4 National Laboratory or single-purpose research  
5 facility;

6 (D) the commitment shown by non-Federal  
7 organizations to the project, based primarily on  
8 the nature and amount of the financial and  
9 other resources they will risk on the project;

10 (E) the extent to which the project involves  
11 a wide variety and number of institutions of  
12 higher education, nonprofit institutions, and  
13 technology-related business concerns that can  
14 support the missions of the participating Na-  
15 tional Laboratory or single-purpose research fa-  
16 cility and that will make substantive contribu-  
17 tions to achieving the goals of the project;

18 (F) the extent of participation in the  
19 project by agencies of State, tribal, or local gov-  
20 ernments that will make substantive contribu-  
21 tions to achieving the goals of the project;

22 (G) the extent to which the project focuses  
23 on promoting the development of technology-re-  
24 lated business concerns that are small business

1 concerns or involves such small business con-  
2 cerns substantively in the project; and

3 (H) such other criteria as the Secretary  
4 determines to be appropriate.

5 (f) REPORT TO CONGRESS.—Not later than January  
6 1, 2004, the Secretary shall report to Congress on whether  
7 the Technology Infrastructure Program should be contin-  
8 ued and, if so, how the program should be managed.

9 (g) DEFINITIONS.—In this section:

10 (1) TECHNOLOGY CLUSTER.—The term “tech-  
11 nology cluster” means a concentration of—

12 (A) technology-related business concerns;

13 (B) institutions of higher education; or

14 (C) other nonprofit institutions,

15 that reinforce each other’s performance in the areas  
16 of technology development through formal or infor-  
17 mal relationships.

18 (2) TECHNOLOGY-RELATED BUSINESS CON-  
19 CERN.—The term “technology-related business con-  
20 cern” means a for-profit corporation, company, asso-  
21 ciation, firm, partnership, or small business concern  
22 that—

23 (A) conducts scientific or engineering re-  
24 search,

25 (B) develops new technologies,

1 (C) manufacturers products based on new  
2 technologies, or

3 (D) performs technological services.

4 (h) AUTHORIZATION OF APPROPRIATIONS.—There  
5 are authorized to be appropriated to the Secretary for ac-  
6 tivities under this section \$10,000,000 for each of fiscal  
7 years 2003 and 2004.

8 **SEC. 1409. SMALL BUSINESS ADVOCACY AND ASSISTANCE.**

9 (a) SMALL BUSINESS ADVOCATE.—The Secretary  
10 shall require the Director of each National Laboratory,  
11 and may require the Director of a single-purpose research  
12 facility, to appoint a small business advocate to—

13 (1) increase the participation of small business  
14 concerns, including socially and economically dis-  
15 advantaged small business concerns, in procurement,  
16 collaborative research, technology licensing, and  
17 technology transfer activities conducted by the Na-  
18 tional Laboratory or single-purpose research facility;

19 (2) report to the Director of the National Lab-  
20 oratory or single-purpose research facility on the ac-  
21 tual participation of small business concerns in pro-  
22 curement and collaborative research along with rec-  
23 ommendations, if appropriate, on how to improve  
24 participation;

1           (3) make available to small business concerns  
2 training, mentoring, and clear, up-to-date informa-  
3 tion on how to participate in the procurement and  
4 collaborative research, including how to submit effec-  
5 tive proposals;

6           (4) increase the awareness inside the National  
7 Laboratory or single-purpose research facility of the  
8 capabilities and opportunities presented by small  
9 business concerns; and

10           (5) establish guidelines for the program under  
11 subsection (b) and report on the effectiveness of  
12 such program to the Director of the National Lab-  
13 oratory or single-purpose research facility.

14           (b) ESTABLISHMENT OF SMALL BUSINESS ASSIST-  
15 ANCE PROGRAM.—The Secretary shall require the Direc-  
16 tor of each National Laboratory, and may require the di-  
17 rector of a single-purpose research facility, to establish a  
18 program to provide small business concerns—

19           (1) assistance directed at making them more ef-  
20 fective and efficient subcontractors or suppliers to  
21 the National Laboratory or single-purpose research  
22 facility; or

23           (2) general technical assistance, the cost of  
24 which shall not exceed \$10,000 per instance of as-

1       sistance, to improve the small business concern's  
2       products or services.

3       (c) USE OF FUNDS.—None of the funds expended  
4       under subsection (b) may be used for direct grants to the  
5       small business concerns.

6       (d) DEFINITIONS.—In this section:

7           (1) SMALL BUSINESS CONCERN.—The term  
8       “small business concern” has the meaning given  
9       such term in section 3 of the Small Business Act  
10      (15 U.S.C. 632).

11          (2) SOCIALLY AND ECONOMICALLY DISADVAN-  
12      TAGED SMALL BUSINESS CONCERNS.—The term “so-  
13      cially and economically disadvantaged small business  
14      concerns” has the meaning given such term in sec-  
15      tion 8(a)(4) of the Small Business Act (15 U.S.C.  
16      637(a)(4)).

17      **SEC. 1410. OTHER TRANSACTIONS.**

18      (a) IN GENERAL.—Section 646 of the Department of  
19      Energy Organization Act (42 U.S.C. 7256) is amended  
20      by adding at the end the following:

21          “(g) OTHER TRANSACTIONS AUTHORITY.—(1) In ad-  
22      dition to other authorities granted to the Secretary to  
23      enter into procurement contracts, leases, cooperative  
24      agreements, grants, and other similar arrangements, the  
25      Secretary may enter into other transactions with public

1 agencies, private organizations, or persons on such terms  
2 as the Secretary may deem appropriate in furtherance of  
3 basic, applied, and advanced research functions now or  
4 hereafter vested in the Secretary. Such other transactions  
5 shall not be subject to the provisions of section 9 of the  
6 Federal Nonnuclear Energy Research and Development  
7 Act of 1974 (42 U.S.C. 5908).

8 “(2)(A) The Secretary of Energy shall ensure that—

9 “(i) to the maximum extent practicable, no  
10 transaction entered into under paragraph (1) pro-  
11 vides for research that duplicates research being  
12 conducted under existing programs carried out by  
13 the Department of Energy; and

14 “(ii) to the extent that the Secretary determines  
15 practicable, the funds provided by the Government  
16 under a transaction authorized by paragraph (1) do  
17 not exceed the total amount provided by other par-  
18 ties to the transaction.

19 “(B) A transaction authorized by paragraph (1) may  
20 be used for a research project when the use of a standard  
21 contract, grant, or cooperative agreement for such project  
22 is not feasible or appropriate.

23 “(3)(A) The Secretary shall not disclose any trade  
24 secret or commercial or financial information submitted

1 by a non-Federal entity under paragraph (1) that is privi-  
2 leged and confidential.

3 “(B) The Secretary shall not disclose, for five years  
4 after the date the information is received, any other infor-  
5 mation submitted by a non-Federal entity under para-  
6 graph (1), including any proposal, proposal abstract, docu-  
7 ment supporting a proposal, business plan, or technical  
8 information that is privileged and confidential.

9 “(C) The Secretary may protect from disclosure, for  
10 up to five years, any information developed pursuant to  
11 a transaction under paragraph (1) that would be protected  
12 from disclosure under section 552(b)(4) of title 5, United  
13 States Code, if obtained from a person other than a Fed-  
14 eral agency.”.

15 (b) IMPLEMENTATION.—Not later than six months  
16 after the date of enactment of this section, the Depart-  
17 ment shall establish guidelines for the use of other trans-  
18 actions.

19 **SEC. 1411. MOBILITY OF SCIENTIFIC AND TECHNICAL PER-**  
20 **SONNEL.**

21 Not later than two years after the enactment of this  
22 section, the Secretary, acting through the Technology  
23 Transfer Coordinator under section 1407, shall determine  
24 whether each contractor operating a National Laboratory  
25 or single-purpose research facility has policies and proce-

1 dures that do not create disincentives to the transfer of  
2 scientific and technical personnel among the contractor-  
3 operated National Laboratories or contractor-operated  
4 single-purpose research facilities.

5 **SEC. 1412. NATIONAL ACADEMY OF SCIENCES REPORT.**

6 Within 90 days after the date of enactment of this  
7 Act, the Secretary shall contract with the National Acad-  
8 emy of Sciences to—

9 (1) conduct a study on the obstacles to accel-  
10 erating the innovation cycle for energy technology,  
11 and

12 (2) report to the Congress recommendations for  
13 shortening the cycle of research, development, and  
14 deployment.

15 **SEC. 1413. REPORT ON TECHNOLOGY READINESS AND BAR-**  
16 **RIERS TO TECHNOLOGY TRANSFER.**

17 (a) IN GENERAL.—The Secretary, acting through the  
18 Technology Partnership Working Group and in consulta-  
19 tion with representatives of affected industries, univer-  
20 sities, and small business concerns, shall—

21 (1) assess the readiness for technology transfer  
22 of energy technologies developed through projects  
23 funded from appropriations authorized under sub-  
24 titles A through D of title XIV, and



1 technology industries, including renewable energy in-  
2 dustries, companies developing and commercializing  
3 devices to increase energy-efficiency, the oil and gas  
4 industry, nuclear power industry, the coal industry,  
5 and other industrial sectors as the Secretary may  
6 deem appropriate.

7 (2) ANNUAL REPORTS.—The Administrator of  
8 the Energy Information Administration shall include  
9 statistics on energy industry workforce trends in the  
10 annual reports of the Energy Information Adminis-  
11 tration.

12 (3) SPECIAL REPORTS.—The Secretary shall re-  
13 port to the appropriate committees of Congress  
14 whenever the Secretary determines that significant  
15 shortfalls of technical personnel in one or more en-  
16 ergy industry segments are forecast or have oc-  
17 curred.

18 (b) TRAINEESHIP GRANTS FOR TECHNICALLY  
19 SKILLED PERSONNEL.—

20 (1) GRANT PROGRAMS.—The Secretary shall es-  
21 tablish grant programs in the appropriate offices of  
22 the Department to enhance training of technically  
23 skilled personnel for which a shortfall is determined  
24 under subsection (a).

1           (2) ELIGIBLE INSTITUTIONS.—As determined  
2           by the Secretary to be appropriate to the particular  
3           workforce shortfall, the Secretary shall make grants  
4           under paragraph (1) to—

5                   (A) an institution of higher education;

6                   (B) a postsecondary educational institution  
7                   providing vocational and technical education  
8                   (within the meaning given those terms in sec-  
9                   tion 3 of the Carl D. Perkins Vocational and  
10                  Technical Education Act of 1998 (20 U.S.C.  
11                  2302));

12                  (C) appropriate agencies of State, local, or  
13                  tribal governments; or

14                  (D) joint labor and management training  
15                  organizations with state or federally recognized  
16                  apprenticeship programs and other employee-  
17                  based training organizations as the Secretary  
18                  considers appropriate.

19           (c) DEFINITION.—For purposes of this section, the  
20           term “skilled technical personnel” means journey and ap-  
21           prentice level workers who are enrolled in or have com-  
22           pleted a state or federally recognized apprenticeship pro-  
23           gram and other skilled workers in energy technology in-  
24           dustries.

1 (d) AUTHORIZATION OF APPROPRIATIONS.—From  
2 amounts authorized under section 1241(c), there are au-  
3 thorized to be appropriated to the Secretary for activities  
4 under this section such sums as may be necessary for each  
5 fiscal year.

6 **SEC. 1502. POSTDOCTORAL AND SENIOR RESEARCH FEL-**  
7 **LOWSHIPS IN ENERGY RESEARCH.**

8 (a) POSTDOCTORAL FELLOWSHIPS.—The Secretary  
9 shall establish a program of fellowships to encourage out-  
10 standing young scientists and engineers to pursue  
11 postdoctoral research appointments in energy research  
12 and development at institutions of higher education of  
13 their choice. In establishing a program under this sub-  
14 section, the Secretary may enter into appropriate arrange-  
15 ments with the National Academy of Sciences to help ad-  
16 minister the program.

17 (b) DISTINGUISHED SENIOR RESEARCH FELLOW-  
18 SHIPS.—The Secretary shall establish a program of fellow-  
19 ships to allow outstanding senior researchers in energy re-  
20 search and development and their research groups to ex-  
21 plore research and development topics of their choosing  
22 for a fixed period of time. Awards under this program  
23 shall be made on the basis of past scientific or technical  
24 accomplishment and promise for continued accomplish-

1 ment during the period of support, which shall not be less  
2 than 3 years.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—From  
4 amounts authorized under section 1241(c), there are au-  
5 thorized to be appropriated to the Secretary for activities  
6 under this section such sums as may be necessary for each  
7 fiscal year.

8 **SEC. 1503. TRAINING GUIDELINES FOR ELECTRIC ENERGY**  
9 **INDUSTRY PERSONNEL.**

10 (a) MODEL GUIDELINES.—The Secretary shall, in co-  
11 operation with electric generation, transmission, and dis-  
12 tribution companies and recognized representatives of em-  
13 ployees of those entities, develop model employee training  
14 guidelines to support electric supply system reliability and  
15 safety.

16 (b) CONTENT OF GUIDELINES.—The guidelines  
17 under this section shall include—

18 (1) requirements for worker training, com-  
19 petency, and certification, developed using criteria  
20 set forth by the Utility Industry Group recognized  
21 by the National Skill Standards Board; and

22 (2) consolidation of existing guidelines on the  
23 construction, operation, maintenance, and inspection  
24 of electric supply generation, transmission and dis-  
25 tribution facilities such as those established by the

1 National Electric Safety Code and other industry  
2 consensus standards.

3 **SEC. 1504. NATIONAL CENTER ON ENERGY MANAGEMENT**  
4 **AND BUILDING TECHNOLOGIES.**

5 The Secretary shall establish a National Center on  
6 Energy Management and Building Technologies, to carry  
7 out research, education, and training activities to facilitate  
8 the improvement of energy efficiency and indoor air qual-  
9 ity in industrial, commercial and residential buildings. The  
10 National Center shall be established in cooperation with—

11 (1) recognized representatives of employees in  
12 the heating, ventilation, and air-conditioning indus-  
13 try;

14 (2) contractors that install and maintain heat-  
15 ing, ventilation and air-conditioning systems and  
16 equipment;

17 (3) manufacturers of heating, ventilation and  
18 air-conditioning systems and equipment;

19 (4) representatives of the advanced building en-  
20 velope industry, including design, windows, lighting,  
21 and insulation industries; and

22 (5) other entities as appropriate.

1 **SEC. 1505. IMPROVED ACCESS TO ENERGY-RELATED SCI-**  
2 **ENTIFIC AND TECHNICAL CAREERS.**

3 (a) DEPARTMENT OF ENERGY SCIENCE EDUCATION  
4 PROGRAMS.—Section 3164 of the Department of Energy  
5 Science Education Enhancement Act (42 U.S.C. 7381a)  
6 is amended by adding at the end the following:

7 “(c) PROGRAMS FOR WOMEN AND MINORITY STU-  
8 DENTS.—In carrying out a program under subsection (a),  
9 the Secretary shall give priority to activities that are de-  
10 signed to encourage women and minority students to pur-  
11 sue scientific and technical careers.”.

12 (b) PARTNERSHIPS WITH HISTORICALLY BLACK  
13 COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING IN-  
14 STITUTIONS, AND TRIBAL COLLEGES.—The Department  
15 of Energy Science Education Enhancement Act (42  
16 U.S.C. 7381 et seq.) is amended—

17 (1) by redesignating sections 3167 and 3168 as  
18 sections 3168 and 3169, respectively; and

19 (2) by inserting after section 3166 the fol-  
20 lowing:

21 **SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK**  
22 **COLLEGES AND UNIVERSITIES, HISPANIC-**  
23 **SERVING INSTITUTIONS, AND TRIBAL COL-**  
24 **LEGES.**

25 “(a) DEFINITIONS.—In this section:

1           “(1) HISPANIC-SERVING INSTITUTION.—The  
2 term ‘Hispanic-serving institution’ has the meaning  
3 given the term in section 502(a) of the Higher Edu-  
4 cation Act of 1965 (20 U.S.C. 1101a(a)).

5           “(2) HISTORICALLY BLACK COLLEGE OR UNI-  
6 VERSITY.—The term ‘historically Black college or  
7 university’ has the meaning given the term ‘part B  
8 institution’ in section 322 of the Higher Education  
9 Act of 1965 (20 U.S.C. 1061).

10           “(3) NATIONAL LABORATORY.—The term ‘Na-  
11 tional Laboratory’ has the meaning given the term  
12 in section 1203 of the Energy Science and Tech-  
13 nology Enhancement Act of 2002.

14           “(4) SCIENCE FACILITY.—The term ‘science fa-  
15 cility’ has the meaning given the term ‘single-pur-  
16 pose research facility’ in section 1401 of the Energy  
17 Science and Technology Enhancement Act of 2002.

18           “(5) TRIBAL COLLEGE.—The term ‘tribal col-  
19 lege’ has the meaning given the term ‘tribally con-  
20 trolled college or university’ in section 2(a) of the  
21 Tribally Controlled College or University Assistance  
22 Act of 1978 (25 U.S.C. 1801(a)).

23           “(b) EDUCATION PARTNERSHIP.—

24           “(1) IN GENERAL.—The Secretary shall direct  
25 the Director of each National Laboratory, and may

1 direct the head of any science facility, to increase  
2 the participation of historically Black colleges or uni-  
3 versities, Hispanic-serving institutions, or tribal col-  
4 leges in activities that increase the capacity of the  
5 historically Black colleges or universities, Hispanic-  
6 serving institutions, or tribal colleges to train per-  
7 sonnel in science or engineering.

8 “(2) ACTIVITIES.—An activity under paragraph  
9 (1) may include—

10 “(A) collaborative research;

11 “(B) a transfer of equipment;

12 “(C) training of personnel at a National  
13 Laboratory or science facility; and

14 “(D) a mentoring activity by personnel at  
15 a National Laboratory or science facility.

16 “(c) REPORT.—Not later than 2 years after the date  
17 of enactment of this section, the Secretary shall submit  
18 to the Committee on Science of the House of Representa-  
19 tives and the Committee on Energy and Natural Re-  
20 sources of the Senate a report on the activities carried  
21 out under this section.”.

1       **DIVISION F—TECHNOLOGY**  
2       **ASSESSMENT AND STUDIES**  
3       **TITLE XVI—TECHNOLOGY**  
4       **ASSESSMENT**

5       **SEC. 1601. NATIONAL SCIENCE AND TECHNOLOGY ASSESS-**  
6               **MENT SERVICE.**

7           The National Science and Technology Policy, Organi-  
8       zation, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.)  
9       is amended by adding at the end the following:

10       **“TITLE VII—NATIONAL SCIENCE**  
11               **AND TECHNOLOGY ASSESS-**  
12               **MENT SERVICE**

13       **“SEC. 701. ESTABLISHMENT.**

14           “There is hereby created a Science and Technology  
15       Assessment Service (hereinafter referred to as the ‘Serv-  
16       ice’), which shall be within and responsible to the legisla-  
17       tive branch of the Government.

18       **“SEC. 702. COMPOSITION.**

19           “The Service shall consist of a Science and Tech-  
20       nology Board (hereinafter referred to as the ‘Board’)  
21       which shall formulate and promulgate the policies of the  
22       Service, and a Director who shall carry out such policies  
23       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 or 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,

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 (c) 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 related to the production of  
12           oil or gas on the Outer Continental Shelf; and

13           (B) a related facility that carries out a  
14           public service, transportation, or infrastructure  
15           activity critical to the operation of an energy in-  
16           frastructure facility, as determined by the Sec-  
17           retary.

18          (4) DISTANCE.—The term “distance” means  
19          the minimum great circle distance, measured in stat-  
20          ute miles.

21          (5) LEASED TRACT.—

22           (A) IN GENERAL.—The term “leased  
23           tract” means a tract that—

24           (i) is subject to a lease under section  
25           6 or 8 of the Outer Continental Shelf

1 Lands Act (43 U.S.C. 1335, 1337) for the  
2 purpose of drilling for, developing, and  
3 producing oil or natural gas resources; and

4 (ii) consists of a block, a portion of a  
5 block, a combination of blocks or portions  
6 of blocks, or a combination of portions of  
7 blocks, as—

8 (I) specified in the lease; and

9 (II) depicted on an outer Conti-  
10 nental Shelf official protraction dia-  
11 gram.

12 (B) EXCLUSION.—The term “leased tract”  
13 does not include a tract described in subpara-  
14 graph (A) that is located in a geographic area  
15 subject to a leasing moratorium on January 1,  
16 2001, unless the lease was in production on  
17 that date.

18 (6) OCS POLITICAL SUBDIVISION.—The term  
19 “OCS political subdivision” means a county, parish,  
20 borough or any equivalent subdivision of an OCS  
21 Production State all or part of which subdivision lies  
22 within the coastal zone (as defined in section 304(1)  
23 of the Coastal Zone Management Act of 1972 (16  
24 U.S.C. 1453(1)).

1           (7) OCS PRODUCTION STATE.—The term “OCS  
2 Production State” means the State of—

3           (A) Alaska;

4           (B) Alabama;

5           (C) California;

6           (D) Florida;

7           (F) Louisiana;

8           (G) Mississippi; or

9           (H) Texas.

10          (8) PRODUCTION.—The term “production” has  
11 the meaning given the term in section 2 of the Outer  
12 Continental Shelf Lands Act (43 U.S.C. 1331).

13          (9) PROGRAM.—The term “program” means  
14 the Outer Continental Shelf Energy Infrastructure  
15 Security Program established under subsection (b).

16          (10) QUALIFIED OUTER CONTINENTAL SHELF  
17 REVENUES.—The term “qualified Outer Continental  
18 Shelf revenues” means all amounts received by the  
19 United States from each leased tract or portion of  
20 a leased tract lying seaward of the zone defined and  
21 governed by section 8(g) of the Outer Continental  
22 Shelf Lands Act (43 U.S.C. 1331, *et seq.*), or lying  
23 within such zone but to which section 8(g) does not  
24 apply, the geographic center of which lies within a  
25 distance of 200 miles from any part of the coastline

1 of any State, including bonus bids, rents, royalties  
2 (including payments for royalties taken in kind and  
3 sold), net profit share payments, and related late  
4 payment interest. Such term does not include any  
5 revenues from a leased tract or portion of a leased  
6 tract that is included within any area of the Outer  
7 Continental Shelf where a moratorium on new leas-  
8 ing was in effect as of January 1, 2001, unless the  
9 lease was issued prior to the establishment of the  
10 moratorium and was in production on January 1,  
11 2001.

12 (11) SECRETARY.—The term “Secretary”  
13 means the Secretary of the Interior.

14 (12) STATE PLAN.—The term “State plan”  
15 means a State plan described in subsection (b).

16 (b) ESTABLISHMENT.—The Secretary shall establish  
17 a program, to be known as the “Outer Continental Shelf  
18 Energy Infrastructure Security Program,” under which  
19 the Secretary shall provide funds to OCS Production  
20 States to implement approved State plans to provide secu-  
21 rity against hostile and natural threats to critical OCS en-  
22 ergy infrastructure facilities and support of any necessary  
23 public service or transportation activities that are needed  
24 to maintain the safety and operation of critical energy in-  
25 frastructure activities. For purposes of this program, res-

1 toration of any coastal wetland shall be considered to be  
2 an activity that secures critical OCS energy infrastructure  
3 facilities from a natural threat.

4 (c) STATE PLANS.—

5 (1) INITIAL PLAN.—Not later than 180 days  
6 after the date of enactment of this Act, to be eligible  
7 to receive funds under the program, the Governor of  
8 an OCS Production State shall submit to the Sec-  
9 retary a plan to provide security against hostile and  
10 natural threats to critical energy infrastructure fa-  
11 cilities in the OCS Production State and to support  
12 any of the necessary public service or transportation  
13 activities that are needed to maintain the safety and  
14 operation of critical energy infrastructure facilities.  
15 Such plan shall include—

16 (A) the name of the State agency that will  
17 have the authority to represent and act for the  
18 State in dealing with the Secretary for purposes  
19 of this section;

20 (B) a program for the implementation of  
21 the plan which describes how the amounts pro-  
22 vided under this section will be used;

23 (C) a contact for each OCS political sub-  
24 division and description of how such political  
25 subdivisions will use amounts provided under

1 this section, including a certification by the  
2 Governor that such uses are consistent with the  
3 requirements of this section;

4 (D) certification by the Governor that  
5 ample opportunity has been accorded for public  
6 participation in the development and revision of  
7 the plan; and

8 (E) Measures for taking into account other  
9 relevant Federal resources and programs.

10 (2) REVISED PLANS.—

11 (A) FIRST REVISED PLAN.—Not later than  
12 18 months after the date of enactment of this  
13 Act, the Governor of a State shall submit to the  
14 Secretary a revised State plan.

15 (B) ANNUAL REVIEWS.—Not later than 1  
16 year after the date of submission of the revised  
17 plan under subparagraph (A) and annually  
18 thereafter, the Governor of an OCS Production  
19 State shall—

20 (i) review the approved State plan;

21 and

22 (ii) submit to the Secretary any re-  
23 vised State plan resulting from the review.

24 (3) APPROVAL OF PLANS.—

1 (A) IN GENERAL.—In consultation with  
2 appropriate Federal security officials and the  
3 Secretaries of Commerce and Energy, the Sec-  
4 retary shall—

5 (i) approve each State plan; or

6 (ii) recommend changes to the State  
7 plan.

8 (B) RESUBMISSION OF STATE PLANS.—If  
9 the Secretary recommends changes to a State  
10 plan under subparagraph (A)(ii), the Governor  
11 of the OCS Production State may resubmit a  
12 revised State plan to the Secretary for approval.

13 (4) AVAILABILITY OF PLANS.—

14 (A) AVAILABILITY TO THE PUBLIC.—The  
15 Secretary, in consultation with the Governor of  
16 an OCS Production State, shall determine  
17 whether and to what extent the approved State  
18 plan shall be made public.

19 (B) AVAILABILITY TO CONGRESS.—The  
20 Secretary shall provide to Congress, on a con-  
21 fidential basis, a copy of each approved State  
22 plan.

23 (5) CONSULTATION AND PUBLIC COMMENT.—

24 (A) CONSULTATION.—The Governor of an  
25 OCS Production State shall develop the State

1 plan in consultation with Federal, State, and  
2 local law enforcement and public safety offi-  
3 cials, industry, Indian tribes, the scientific com-  
4 munity, and other persons as appropriate.

5 (B) PUBLIC COMMENT.—The Governor of  
6 an OCS Production State may solicit public  
7 comments on the State plan to the extent that  
8 the Governor determines to be appropriate.

9 (d) ALLOCATION OF AMOUNTS BY THE SEC-  
10 RETARY.—The Secretary shall allocate the amounts made  
11 available for the purposes of carrying out the program  
12 provided for by this section among OCS Production States  
13 as follows:

14 (1) 25 percent of the amounts shall be divided  
15 equally among OCS Production States; and

16 (2) 75 percent of the amounts shall be divided  
17 among OCS Production States on the basis of the  
18 proximity of each OCS Production State to offshore  
19 locations at which oil and gas are being produced.

20 (e) CALCULATION.—The amount for each OCS Pro-  
21 duction State under paragraph (d)(2) shall be calculated  
22 based on the ratio of qualified OCS revenues generated  
23 off the coastline of the OCS Production State to the quali-  
24 fied OCS revenues generated off the coastlines of all OCS  
25 Production States for the prior five-year period. Where

1 there is more than one OCS Production State within 200  
2 miles of a leased tract, the amount of each OCS Produc-  
3 tion State's payment under paragraph (d)(2) for such  
4 leased tract shall be inversely proportional to the distance  
5 between the nearest point on the coastline of such State  
6 and the geographic center of each leased tract or portion  
7 of the leased tract (to the nearest whole mile) that is with-  
8 in 200 miles of that coastline, as determined by the Sec-  
9 retary. A leased tract or portion of a leased tract shall  
10 be excluded if the tract or portion is located in a geo-  
11 graphic area where a moratorium on new leasing was in  
12 effect on January 1, 2001, unless the lease was issued  
13 prior to the establishment of the moratorium and was in  
14 production on January 1, 2001.

15 (f) PAYMENTS TO OCS POLITICAL SUBDIVISIONS.—  
16 Thirty-five percent of each OCS Production State's allo-  
17 cable share as determined under subsection (e) shall be  
18 paid directly to the OCS political subdivisions by the Sec-  
19 retary based on the following formula, except that a polit-  
20 ical subdivision in the State of California that has a coast-  
21 al shoreline that is not within 200 miles of the geographic  
22 center of a leased tract or portion of a leased tract and  
23 in which there is located one or more oil refineries shall  
24 be eligible for that portion of the allocation described in  
25 paragraph (3) in the same manner as if that political sub-

1 division were located within a distance of 50 miles from  
2 the geographic center of the closest leased tract with quali-  
3 fied Outer Continental Shelf revenues:

4 (1) 25 percent shall be allocated based on the  
5 ratio of such OCS political subdivision's coastal pop-  
6 ulation to the coastal population of all OCS political  
7 subdivisions in the OCS Production State.

8 (2) 25 percent shall be allocated based on the  
9 ratio of such OCS political subdivision's coastline  
10 miles to the coastline miles of all OCS political sub-  
11 divisions in the OCS Production State. For purposes  
12 of this subsection, those OCS political subdivisions  
13 without coastlines shall be considered to have a  
14 coastline that is the average length of the coastlines  
15 of all political subdivisions in the state.

16 (3) 50 percent shall be allocated based on the  
17 relative distance of such OCS political subdivision  
18 from any leased tract used to calculate that OCS  
19 Production State's allocation using ratios that are  
20 inversely proportional to the distance between the  
21 point in the coastal political subdivision closest to  
22 the geographic center of each leased tract or portion,  
23 as determined by the Secretary. For purposes of the  
24 calculations under this subparagraph, a leased tract  
25 or portion of a leased tract shall be excluded if the

1 leased tract or portion is located in a geographic  
2 area where a moratorium on new leasing was in ef-  
3 fect on January 1, 2001, unless the lease was issued  
4 prior to the establishment of the moratorium and  
5 was in production on January 1, 2001.

6 (g) FAILURE TO HAVE PLAN APPROVED.—Any  
7 amount allocated to an OCS Production State or OCS po-  
8 litical subdivision but not disbursed because of a failure  
9 to have an approved Plan under this section shall be allo-  
10 cated equally by the Secretary among all other OCS Pro-  
11 duction States in a manner consistent with this subsection  
12 except that the Secretary shall hold in escrow such amount  
13 until the final resolution of any appeal regarding the dis-  
14 approval of a plan submitted under this section. The Sec-  
15 retary may waive the provisions of this paragraph and  
16 hold an OCS Production State's allocable share in escrow  
17 if the Secretary determines that such State is making a  
18 good faith effort to develop and submit, or update, a Plan.

19 (h) USE OF AMOUNTS ALLOCATED BY THE SEC-  
20 RETARY.—

21 (1) IN GENERAL.—Amounts allocated by the  
22 Secretary under subsection (d) may be used only in  
23 accordance with a plan approved pursuant to sub-  
24 section (c) for—

1 (A) activities to secure critical OCS energy  
2 infrastructure facilities from human or natural  
3 threats; and

4 (B) support of any necessary public service  
5 or transportation activities that are needed to  
6 maintain the safety and operation of critical  
7 OCS energy infrastructure facilities.

8 (2) RESTORATION OF COASTAL WETLAND.—For  
9 the purpose of subparagraph (1)(A), restoration of  
10 any coastal wetland shall be considered to be an ac-  
11 tivity that secures critical OCS energy infrastructure  
12 facilities from a natural threat.

13 (i) AUTHORIZATION OF APPROPRIATIONS.—There are  
14 hereby authorized to be appropriated \$450,000,000 for  
15 each of the fiscal years 2003 through 2008 to carry out  
16 the purposes of this section.

17 **Subtitle C—Commercial Nuclear**  
18 **Facility Security**

19 **SEC. 1811. RESERVED.**



**Calendar No. 259**

107TH CONGRESS  
1ST SESSION

**S. 1766**

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**A BILL**

To provide for the energy security of the Nation,  
and for other purposes.

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DECEMBER 6, 2001

Read the second time and placed on the calendar