

TITLE XVI—STUDIES

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- 1 **TITLE XVI—STUDIES**
- 2 **SEC. 1601. ENERGY AND WATER SAVING MEASURES IN CON-**
- 3 **GRESSIONAL BUILDINGS.**
- 4 (a) IN GENERAL.—The Architect of the Capitol,
- 5 building on the Master Plan Study for the Capitol complex
- 6 completed in July 2000, shall commission a study to
- 7 evaluate the energy infrastructure of the Capitol complex
- 8 to determine how to augment the infrastructure to become
- 9 more energy efficient—

1 (1) by using unconventional and renewable en-
2 ergy resources; and

3 (2) in a manner that would enable the Capitol
4 complex to have reliable utility service in the event
5 of power fluctuations, shortages, or outages.

6 (b) AUTHORIZATION OF APPROPRIATIONS.—There is
7 authorized to be appropriated to the Architect of the Cap-
8 itol to carry out this section \$2,000,000 for each of fiscal
9 years 2006 through 2010.

10 **SEC. 1602. INCREASED HYDROELECTRIC GENERATION AT**
11 **EXISTING FEDERAL FACILITIES.**

12 (a) STUDY.—

13 (1) IN GENERAL.—The Secretary and the Sec-
14 retary of the Interior, in consultation with the Sec-
15 retary of the Army, shall conduct a study of the po-
16 tential for increasing electric power production capa-
17 bility, in accordance with applicable law, at federally
18 owned or operated water regulation, storage, and
19 conveyance facilities.

20 (2) CONTENTS.—The study under paragraph
21 (1) shall include an identification and detailed de-
22 scription of each facility that is capable, with or
23 without modification, of producing additional hydro-
24 electric power, including an estimate of the potential
25 of the facility to generate hydroelectric power.

1 (b) REPORT.—

2 (1) IN GENERAL.—Not later than 18 months
3 after the date of enactment of this Act, the Secre-
4 taries shall submit to the Committee on Energy and
5 the Committee on Commerce, Resources, Transpor-
6 tation and Infrastructure of the House of Represent-
7 atives, and the Committee on Energy and Natural
8 Resources of the Senate, a report describing the
9 findings, conclusions, and recommendations of the
10 study under subsection (a).

11 (2) INCLUSIONS.—The report under paragraph
12 (1) shall include—

13 (A) each identification, description, and es-
14 timate under subsection (a)(2);

15 (B) a description of any activity that is
16 conducted or under consideration, or that could
17 be considered, to produce additional hydro-
18 electric power at an identified facility;

19 (C) a summary of actions taken by the
20 Secretaries before the date on which the study
21 was completed to produce additional hydro-
22 electric power at an identified facility;

23 (D) a calculation of—

24 (i) the costs of installing, upgrading,
25 modifying, or taking any other action re-

1 lating to, equipment to produce additional
2 hydroelectric power at an identified facil-
3 ity; and

4 (ii) the level of involvement of Federal
5 power customers in the determination of
6 the costs;

7 (E) a description of any benefit to be
8 achieved by an installation, upgrade, modifica-
9 tion, or other action under subparagraph (D),
10 including a quantified estimate of any addi-
11 tional energy or capacity produced at an identi-
12 fied facility;

13 (F) a description of any action that is
14 planned, is being carried out on the date on
15 which the report is submitted, or might reason-
16 ably be considered to increase hydroelectric
17 power production by replacing turbine runners,
18 upgrading or rewinding generators, or con-
19 structing pumped storage facilities;

20 (G) a description of the effect of increased
21 hydroelectric power production on—

22 (i) irrigation;

23 (ii) fish;

24 (iii) wildlife;

25 (iv) Indian land;

- 1 (v) river health;
2 (vi) water quality;
3 (vii) navigation;
4 (viii) recreation;
5 (ix) fishing; and
6 (x) flood control; and

7 (H) any additional recommendations of the
8 Secretaries to increase hydroelectric power pro-
9 duction, and reduce costs and improve effi-
10 ciency, in accordance with applicable law, at
11 federally owned or operated water regulation,
12 storage, and conveyance facilities.

13 **SEC. 1603. ALASKA NATURAL GAS PIPELINE.**

14 Not later than 180 days after the date of enactment
15 of this Act, and every 180 days thereafter until the Alaska
16 natural gas pipeline commences operation, the Federal
17 Energy Regulatory Commission shall submit to Congress
18 a report describing—

- 19 (1) the progress made in licensing and con-
20 structing the pipeline; and
21 (2) any issue impeding that progress.

22 **SEC. 1604. RENEWABLE ENERGY ON FEDERAL LAND.**

23 (a) NATIONAL ACADEMY OF SCIENCES STUDY.—Not
24 later than 90 days after the date of enactment of this Act,
25 the Secretary of the Interior shall enter into a contract

1 with the National Academy of Sciences under which the
2 National Academy of Sciences shall—

3 (1) study the potential of developing wind,
4 solar, and ocean energy resources (including tidal,
5 wave, and thermal energy) on Federal land and the
6 outer Continental Shelf;

7 (2) assess any Federal law (including regula-
8 tions) relating to the development of those resources
9 that is in existence on the date of enactment of this
10 Act; and

11 (3) recommend statutory and regulatory mecha-
12 nisms for developing those resources.

13 (b) SUBMISSION TO CONGRESS.—Not later than 2
14 years after the date of enactment of this Act, the Sec-
15 retary of the Interior shall submit to Congress the results
16 of the study under subsection (a).

17 **SEC. 1605. COAL BED METHANE STUDY.**

18 (a) STUDY.—

19 (1) IN GENERAL.—The Secretary of the Inte-
20 rior shall enter into an arrangement under which the
21 National Academy of Sciences shall conduct a study
22 on the effect of coalbed natural gas production on
23 surface and ground water resources, including
24 ground water aquifers, in the States of Montana,

1 Wyoming, Colorado, New Mexico, North Dakota,
2 and Utah.

3 (2) MATTERS TO BE ADDRESSED.—The study
4 shall address the effectiveness of—

5 (A) the management of coal bed methane
6 produced water;

7 (B) the use of best management practices;
8 and

9 (C) various production techniques for coal
10 bed methane natural gas in minimizing impacts
11 on water resources.

12 (b) DATA ANALYSIS.—The study shall analyze avail-
13 able hydrologic, geologic and water quality data, along
14 with—

15 (1) production techniques, produced water man-
16 agement techniques, best management practices, and
17 other factors that can mitigate effects of coal bed
18 methane development;

19 (2) the costs associated with mitigation tech-
20 niques;

21 (3) effects on surface or ground water re-
22 sources, including drinking water, associated with
23 surface or subsurface disposal of waters produced
24 during extraction of coal bed methane; and

1 (4) any other significant effects on surface or
2 ground water resources associated with production
3 of coal-bed methane.

4 (c) RECOMMENDATIONS.—The study shall analyze
5 the effectiveness of current mitigation practices of coal bed
6 methane produced water handling in relation to existing
7 Federal and State laws and regulations, and make rec-
8 ommendations as to changes, if any, to Federal law nec-
9 essary to address adverse impacts to surface or ground
10 water resources associated with coal bed methane develop-
11 ment.

12 (d) COMPLETION OF STUDY.—The National Acad-
13 emy of Sciences shall submit the findings and rec-
14 ommendations of the study to the Secretary of the Interior
15 within 12 months after the date of enactment of this Act,
16 and shall upon completion make the results of the study
17 available to the public.

18 (e) REPORT TO CONGRESS.—The Secretary of the In-
19 terior shall report to the Congress within 6 months after
20 receiving the results of the study on—

21 (1) the findings and recommendations of the
22 study;

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

1 (3) any recommended changes in funding to ad-
2 dress the effects of coal bed methane production on
3 surface and ground water resources.

4 **SEC. 1606. BACKUP FUEL CAPABILITY STUDY.**

5 (a) STUDY.—

6 (1) IN GENERAL.—The Secretary shall conduct
7 a study of the effect of obtaining and maintaining
8 liquid and other fuel backup capability at—

9 (A) gas-fired power generation facilities;

10 and

11 (B) other gas-fired industrial facilities.

12 (2) CONTENTS.—The study under paragraph
13 (1) shall address—

14 (A) the costs and benefits of adding a dif-
15 ferent fuel capability to a power gas-fired power
16 generating or industrial facility, taking into
17 consideration regional differences;

18 (B) methods of the Federal Government
19 and State governments to encourage gas-fired
20 power generators and industries to develop the
21 capability to power the facilities using a backup
22 fuel;

23 (C) the effect on the supply and cost of
24 natural gas of—

1 (i) a balanced portfolio of fuel choices
2 in power generation and industrial applica-
3 tions; and

4 (ii) State regulations that permit
5 agencies in the State to carry out policies
6 that encourage the use of other backup
7 fuels in gas-fired power generation; and

8 (D) changes required in the Clean Air Act
9 (42 U.S.C. 7401 et seq.) to allow natural gas
10 generators to add clean backup fuel capabilities.

11 (b) REPORT TO CONGRESS.—Not later than 1 year
12 after the date of enactment of this Act, the Secretary shall
13 submit to Congress a report on the results of the study
14 under subsection (a), including recommendations regard-
15 ing future activity of the Federal Government relating to
16 backup fuel capability.

17 **SEC. 1607. INDIAN LAND RIGHTS-OF-WAY.**

18 (a) STUDY.—

19 (1) IN GENERAL.—The Secretary and the Sec-
20 retary of the Interior (referred to in this section as
21 the “Secretaries”) shall jointly conduct a study of
22 issues regarding energy rights-of-way on Indian
23 land.

24 (2) CONSULTATION.—In conducting the study
25 under paragraph (1), the Secretaries shall consult

1 with Indian tribes, the energy industry, appropriate
2 governmental entities, and affected businesses and
3 consumers.

4 (b) REPORT.—Not later than 180 days after the date
5 of enactment of this Act, the Secretaries shall submit to
6 Congress a report on the findings of the study,
7 including—

8 (1) an analysis of historic rates of compensation
9 paid for energy rights-of-way on Indian land; and

10 (2) recommendations for—

11 (A) appropriate standards and procedures
12 for determining fair and appropriate compensa-
13 tion to Indian tribes for grants, expansions, and
14 renewals of energy rights-of-way on Indian
15 land;

16 (B) policies that will—

17 (i) accommodate the needs of Indian
18 tribes relating to grants, expansions, and
19 renewals of energy rights-of-way on Indian
20 land; and

21 (ii) support tribal sovereignty, culture,
22 and priorities relating to land use; and

23 (C) any other national energy transpor-
24 tation policies relating to grants, expansions,

1 and renewals of energy rights-of-way on Indian
2 land, as the Secretaries consider appropriate.

3 **SEC. 1608. REVIEW OF ENERGY POLICY ACT OF 1992 PRO-**
4 **GRAMS.**

5 (a) IN GENERAL.—Not later than 180 days after the
6 date of enactment of this Act, the Secretary shall complete
7 a study to determine the effect that titles III, IV, and V
8 of the Energy Policy Act of 1992 (42 U.S.C. 13211 et
9 seq.) have had during the period beginning on the date
10 of enactment of those titles and ending on the date on
11 which the study begins on—

12 (1) the development of alternative fueled vehicle
13 technology;

14 (2) the availability of that technology in the
15 market; and

16 (3) the cost of alternative fueled vehicles.

17 (b) TOPICS.—In conducting the study under sub-
18 section (a), the Secretary shall identify—

19 (1) the number of alternative fueled vehicles ac-
20 quired by fleets or covered persons required to ac-
21 quire alternative fueled vehicles;

22 (2) the quantity, by type, of alternative fuel
23 used in alternative fueled vehicles acquired by fleets
24 or covered persons;

1 (3) the quantity of petroleum displaced by the
2 use of alternative fuels in alternative fueled vehicles
3 acquired by fleets or covered persons;

4 (4) the direct and indirect costs of compliance
5 with requirements under titles III, IV, and V of the
6 Energy Policy Act of 1992 (42 U.S.C. 13211 et
7 seq.), including—

8 (A) vehicle acquisition requirements im-
9 posed on fleets or covered persons;

10 (B) administrative and recordkeeping ex-
11 penses;

12 (C) fuel and fuel infrastructure costs;

13 (D) associated training and employee ex-
14 penses; and

15 (E) any other factors or expenses the Sec-
16 retary determines to be necessary to compile re-
17 liable estimates of the overall costs and benefits
18 of complying with programs under those titles
19 for fleets, covered persons, and the national
20 economy;

21 (5) the existence of obstacles preventing compli-
22 ance with vehicle acquisition requirements and in-
23 creased use of alternative fuel in alternative fueled
24 vehicles acquired by fleets or covered persons; and

1 (6) the projected impact of amendments to the
2 Energy Policy Act of 1992 made by this Act.

3 (c) REPORT.—On the date on which the study under
4 subsection (a) is completed, the Secretary shall submit to
5 Congress a report that—

6 (1) describes the results of the study; and

7 (2) includes any recommendations of the Sec-
8 retary for legislative or administrative changes con-
9 cerning the alternative fueled vehicle requirements
10 under titles III, IV and V of the Energy Policy Act
11 of 1992 (42 U.S.C. 13211 et seq.).

12 **SEC. 1609. STUDY OF FEASIBILITY AND EFFECTS OF RE-**
13 **DUCING USE OF FUEL FOR AUTOMOBILES.**

14 (a) STUDY.—

15 (1) IN GENERAL.—Not later than 30 days after
16 the date of the enactment of this Act, the Adminis-
17 trator of the National Highway Traffic Safety Ad-
18 ministration shall conduct a study of the feasibility
19 and effects of reducing, by a significant percentage,
20 by model year 2012, the amount of fuel consumed
21 by automobiles.

22 (2) INCLUSIONS.—The study under paragraph
23 (1) shall include an examination of—

24 (A) the Federal policy of establishing aver-
25 age fuel economy standards for automobiles and

1 requiring each automobile manufacturer to
2 comply with average fuel economy standards
3 that apply to the automobiles the manufacturer
4 produces (including recommendations of alter-
5 natives to that policy);

6 (B) methods by which automobile manu-
7 facturers could contribute toward achieving the
8 reduction described in paragraph (1);

9 (C) the potential of using fuel cell tech-
10 nology in motor vehicles to determine the extent
11 to which fuel cell technology contributes to
12 achieving the reduction described in paragraph
13 (1); and

14 (D) the effects of the reduction described
15 in paragraph (1) on—

16 (i) gasoline supplies;

17 (ii) the automobile industry, including
18 sales of automobiles manufactured in the
19 United States;

20 (iii) motor vehicle safety; and

21 (iv) air quality.

22 (b) REPORT.—Not later than 1 year after the date
23 of enactment of this Act, the Administrator shall submit
24 to Congress a report on the findings, conclusions, and rec-
25 ommendations of the study under subsection (a).

1 **SEC. 1610. HYBRID DISTRIBUTED POWER SYSTEMS.**

2 Not later than 1 year after the date of enactment
3 of this Act, the Secretary shall develop, and submit to
4 Congress a report on, a strategy for a comprehensive re-
5 search, development, demonstration, and commercial ap-
6 plication program to develop hybrid distributed power sys-
7 tems that combine—

8 (1) 1 or more renewable electric power genera-
9 tion technologies of 10 megawatts or less located
10 near the site of electric energy use; and

11 (2) nonintermittent electric power generation
12 technologies suitable for use in a distributed power
13 system.

14 **SEC. 1611. MOBILITY OF SCIENTIFIC AND TECHNICAL PER-**
15 **SONNEL.**

16 Not later than 2 years after the date of enactment
17 of this section, the Secretary shall transmit to Congress
18 a report that—

19 (1) identifies any policies or procedures of a
20 contractor operating a National Laboratory or sin-
21 gle-purpose research facility that create disincentives
22 to the temporary or permanent transfer of scientific
23 and technical personnel among the contractor-oper-
24 ated National Laboratories or contractor-operated
25 single-purpose research facilities; and

1 (2) provides recommendations for improving
2 interlaboratory exchange of scientific and technical
3 personnel.

4 **SEC. 1612. NATIONAL ACADEMY OF SCIENCES REPORT.**

5 Not later than 90 days after the date of enactment
6 of this Act, the Secretary shall enter into an arrangement
7 with the National Academy of Sciences for the Academy
8 to—

9 (1) conduct a study on—

10 (A) the obstacles to accelerating the re-
11 search, development, demonstration, and com-
12 mercial application cycle for energy technology;
13 and

14 (B) the adequacy of Department policies
15 and procedures for, and oversight of, technology
16 transfer-related disputes between contractors of
17 the Department and the private sector; and

18 (2) report to Congress on recommendations de-
19 veloped as a result of the study.

20 **SEC. 1613. REPORT ON RESEARCH AND DEVELOPMENT**
21 **PROGRAM EVALUATION METHODOLOGIES.**

22 (a) IN GENERAL.—Not later than 180 days after the
23 date of enactment of this Act, the Secretary shall enter
24 into appropriate arrangements with the National Academy
25 of Sciences to investigate and report on the scientific and

1 technical merits of any evaluation methodology currently
2 in use or proposed for use in relation to the scientific and
3 technical programs of the Department by the Secretary
4 or other Federal official.

5 (b) REPORT.—Not later than 180 days after receiv-
6 ing the report of the National Academy of Sciences, the
7 Secretary shall submit to Congress a report, along with
8 any other views or plans of the Secretary with respect to
9 the future use of the evaluation methodology.

10 **SEC. 1614. TRANSMISSION SYSTEM MONITORING STUDY.**

11 (a) IN GENERAL.—Not later than 180 days after the
12 date of enactment of this Act, the Secretary and the
13 Chairperson of the Federal Energy Regulatory Commis-
14 sion shall conduct a study, and submit to Congress a re-
15 port, on any action the Secretary determines to be nec-
16 essary to establish a system that makes available to all
17 transmission system owners and regional transmission or-
18 ganizations in the Eastern and Western Interconnections
19 real-time information on the functional status of all trans-
20 mission lines within those Interconnections.

21 (b) INCLUSIONS.—The study under this section shall
22 include—

23 (1) an assessment of any technical method of
24 implementing the information transmission system
25 described in subsection (a); and

1 (2) an identification of any action the Secretary
2 and the Chairperson shall carry out to implement
3 the information transmission system.

4 **SEC. 1615. INTERAGENCY REVIEW OF COMPETITION IN THE**
5 **WHOLESALE AND RETAIL MARKETS FOR**
6 **ELECTRIC ENERGY.**

7 (a) **TASK FORCE.**—There is established an inter-
8 agency task force, to be known as the “Electric Energy
9 Market Competition Task Force” (referred to in this sec-
10 tion as the “task force”), consisting of 5 members—

11 (1) 1 of whom shall be an employee of the De-
12 partment of Justice, to be appointed by the Attorney
13 General of the United States;

14 (2) 1 of whom shall be an employee of the Fed-
15 eral Energy Regulatory Commission, to be appointed
16 by the Chairperson of that Commission;

17 (3) 1 of whom shall be an employee of the Fed-
18 eral Trade Commission, to be appointed by the
19 Chairperson of that Commission;

20 (4) 1 of whom shall be an employee of the De-
21 partment, to be appointed by the Secretary; and

22 (5) 1 of whom shall be an employee of the
23 Rural Utilities Service, to be appointed by the Sec-
24 retary of Agriculture.

25 (b) **STUDY AND REPORT.**—

1 (1) STUDY.—The task force shall conduct a
2 study and analysis of competition within the whole-
3 sale and retail market for electric energy in the
4 United States.

5 (2) REPORT.—

6 (A) FINAL REPORT.—Not later than 1
7 year after the date of enactment of this Act, the
8 task force shall submit to Congress a final re-
9 port on the findings of the task force under
10 paragraph (1).

11 (B) PUBLIC COMMENT.—Not later than
12 the date that is 60 days before a final report
13 is submitted to Congress under subparagraph
14 (A), the task force shall—

15 (i) publish in the Federal Register a
16 draft of the report; and

17 (ii) provide an opportunity for public
18 comment on the report.

19 (c) CONSULTATION.—In conducting the study under
20 subsection (b), the task force shall consult with and solicit
21 comments from any advisory entity of the task force, the
22 States, representatives of the electric power industry, and
23 the public.

1 **SEC. 1616. STUDY ON THE BENEFITS OF ECONOMIC DIS-**
2 **PATCH.**

3 (a) DEFINITION OF ECONOMIC DISPATCH.—In this
4 section, the term “economic dispatch” means the oper-
5 ation of a generation facility to produce energy at the low-
6 est cost in order to reliably serve consumers, taking into
7 consideration any operational limit of a generation or
8 transmission facility.

9 (b) STUDY.—The Secretary, in coordination and con-
10 sultation with the States, shall conduct a study of—

11 (1) the procedures currently used by electric
12 utilities to carry out economic dispatch;

13 (2) possible revisions to those procedures to im-
14 prove the ability of nonutility generation resources
15 to offer the output of the resources for sale for in-
16 clusion in economic dispatch; and

17 (3) the potential benefits to residential, com-
18 mercial, and industrial electricity consumers, nation-
19 ally and in each State, of revising economic dispatch
20 procedures to improve the ability of nonutility gen-
21 eration resources to offer the output of the resources
22 for inclusion in economic dispatch.

23 (c) REPORT TO CONGRESS AND THE STATES.—Not
24 later than 90 days after the date of enactment of this Act,
25 and annually thereafter, the Secretary shall submit to
26 Congress and each State a report describing the results

1 of the study under subsection (b), including recommenda-
2 tions of the Secretary for such legislative and administra-
3 tive actions as the Secretary determines to be appropriate.

4 **SEC. 1617. STUDY OF RAPID ELECTRICAL GRID RESTORA-**
5 **TION.**

6 (a) STUDY.—

7 (1) IN GENERAL.—The Secretary shall conduct
8 a study of the benefits of using mobile transformers
9 and mobile substations to rapidly restore electrical
10 service to areas subjected to blackouts as a result
11 of—

- 12 (A) equipment failure;
- 13 (B) natural disasters;
- 14 (C) acts of terrorism; or
- 15 (D) war.

16 (2) CONTENTS.—The study under paragraph
17 (1) shall contain an analysis of—

- 18 (A) the feasibility of using mobile trans-
19 formers and mobile substations to reduce de-
20 pendence on foreign entities for key elements of
21 the electrical grid system of the United States;
- 22 (B) the feasibility of using mobile trans-
23 formers and mobile substations to rapidly re-
24 store electrical power to—

- 25 (i) military bases;

1 (ii) the Federal Government;
2 (iii) communications industries;
3 (iv) first responders; and
4 (v) other critical infrastructures, as
5 determined by the Secretary;

6 (C) the quantity of mobile transformers
7 and mobile substations necessary—

8 (i) to eliminate dependence on foreign
9 sources for key electrical grid components
10 in the United States;

11 (ii) to rapidly deploy technology to
12 fully restore full electrical service to
13 prioritized Governmental functions; and

14 (iii) to identify manufacturing sources
15 in existence on the date of enactment of
16 this Act that have previously manufactured
17 specialized mobile transformer or mobile
18 substation products for Federal agencies.

19 (b) REPORT.—

20 (1) IN GENERAL.—Not later than 1 year after
21 the date of enactment of this Act, the Secretary
22 shall submit to the President and Congress a report
23 on the study under subsection (a).

1 (2) INCLUSION.—The report shall include a de-
2 scription of the results of the analysis under sub-
3 section (a)(2).

4 **SEC. 1618. DEVELOPMENT OF COGENERATION.**

5 (a) ELECTRICAL GENERATION AND RATES.—

6 (1) BENEFITS OF DISTRIBUTED GENERATION
7 OF ELECTRICITY.—Part II of the Federal Power Act
8 (16 U.S.C. 824 et seq.) (as amended by this title)
9 is amended by adding at the end the following:

10 **“SEC. 223. BENEFITS OF DISTRIBUTED GENERATION OF**
11 **ELECTRICITY.**

12 “(a) STUDY.—

13 “(1) IN GENERAL.—

14 “(A) POTENTIAL BENEFITS.—The Sec-
15 retary, in consultation with the Commission,
16 shall conduct a study of the potential benefits
17 of cogeneration and small power production.

18 “(B) RECIPIENTS.—The benefits described
19 in subparagraph (A) include benefits that are
20 received directly or indirectly by—

21 “(i) an electricity distribution or
22 transmission service provider;

23 “(ii) other customers served by an
24 electricity distribution or transmission
25 service provider; and

1 “(iii) the general public in the area
2 served by the public utility in which the co-
3 generator or small power producer is lo-
4 cated.

5 “(2) INCLUSIONS.—The study shall include an
6 analysis of—

7 “(A) the potential benefits of—

8 “(i) increased system reliability;

9 “(ii) improved power quality;

10 “(iii) the provision of ancillary serv-
11 ices;

12 “(iv) reduction of peak power require-
13 ments through onsite generation;

14 “(v) the provision of reactive power or
15 volt-ampere reactives;

16 “(vi) an emergency supply of power;

17 “(vii) offsets to investments in genera-
18 tion, transmission, or distribution facilities
19 that would otherwise be recovered through
20 rates;

21 “(viii) diminished land use effects and
22 right-of-way acquisition costs; and

23 “(ix) reducing the vulnerability of a
24 system to terrorism; and

1 “(B) any rate-related issue that may im-
2 pede or otherwise discourage the expansion of
3 cogeneration and small power production facili-
4 ties, including a review of whether rates, rules,
5 or other requirements imposed on the facilities
6 are comparable to rates imposed on customers
7 of the same class that do not have cogeneration
8 or small power production.

9 “(3) VALUATION OF BENEFITS.—In carrying
10 out the study, the Secretary shall determine an ap-
11 propriate method of valuing potential benefits under
12 varying circumstances for individual cogeneration or
13 small power production units.

14 “(b) REPORT.—Not later than 18 months after the
15 date of enactment of this section, the Secretary shall—

16 “(1) complete the study;

17 “(2) provide an opportunity for public comment
18 on the results of the study; and

19 “(3) submit to the President and Congress a
20 report describing—

21 “(A) the results of the study; and

22 “(B) information relating to the public
23 comments received under paragraph (2).

1 “(c) PUBLICATION.—After submission of the report
2 under subsection (b) to the President and Congress, the
3 Secretary shall publish the report.”.

4 **SEC. 1619. STUDY ON INVENTORY OF PETROLEUM AND**
5 **NATURAL GAS STORAGE.**

6 (a) DEFINITION OF PETROLEUM.—In this section,
7 the term “petroleum” means—

- 8 (1) crude oil;
- 9 (2) motor gasoline;
- 10 (3) jet fuel;
- 11 (4) distillates; and
- 12 (5) propane.

13 (b) STUDY.—

14 (1) IN GENERAL.—The Secretary shall conduct
15 a study of petroleum and natural gas storage capac-
16 ity and operational inventory levels, nationwide and
17 by major geographical regions.

18 (2) INCLUSIONS.—The study shall include an
19 analysis of, for petroleum and natural gas—

20 (A) historical normal ranges of inventory
21 levels;

22 (B) historical and projected storage capac-
23 ity trends;

24 (C) estimated operation inventory levels
25 below which outages, delivery slowdown, ration-

1 ing, interruptions in service, or other indicators
2 of shortage begin to appear;

3 (D) explanations for inventory levels drop-
4 ping below normal ranges; and

5 (E) the ability of industry to meet the de-
6 mand of the United States for petroleum and
7 natural gas without shortages or price spikes, if
8 inventory levels are below normal ranges.

9 (c) REPORT.—Not later than 1 year after the date
10 of enactment of this Act, the Secretary shall submit to
11 Congress a report on the results of the study, including—

12 (1) the findings of the study; and

13 (2) any recommendations of the Secretary for
14 preventing future supply shortages.

15 **SEC. 1620. NATURAL GAS SUPPLY SHORTAGE REPORT.**

16 (a) IN GENERAL.—Not later than 180 days after the
17 date of enactment of this Act, the Secretary shall submit
18 to Congress a report on natural gas supplies and demand.

19 (b) PURPOSE.—The purpose of the report under sub-
20 section (a) is to develop recommendations for achieving
21 a balance between natural gas supply and demand in order
22 to—

23 (1) provide residential consumers with natural
24 gas at reasonable and stable prices;

1 (2) accommodate long-term maintenance and
2 growth of domestic natural gas-dependent industrial,
3 manufacturing, and commercial enterprises;

4 (3) facilitate the attainment of national ambient
5 air quality standards under the Clean Air Act (43
6 U.S.C. 7401 et seq.);

7 (4) achieve continued progress in reducing the
8 emissions associated with electric power generation;
9 and

10 (5) support the development of the preliminary
11 phases of hydrogen-based energy technologies.

12 (c) COMPREHENSIVE ANALYSIS.—The report shall
13 include a comprehensive analysis of, for the period begin-
14 ning on January 1, 2004, and ending on December 31,
15 2015, natural gas supply and demand in the United
16 States, including—

17 (1) estimates of annual domestic demand for
18 natural gas, taking into consideration the effect of
19 Federal policies and actions that are likely to in-
20 crease or decrease the demand for natural gas;

21 (2) projections of annual natural gas supplies,
22 from domestic and foreign sources, under Federal
23 policies in existence on the date of enactment of this
24 Act;

1 (3) an identification of estimated natural gas
2 supplies that are not available under those Federal
3 policies;

4 (4) scenarios for decreasing natural gas demand
5 and increasing natural gas supplies that compare
6 the relative economic and environmental impacts of
7 Federal policies that—

8 (A) encourage or require the use of natural
9 gas to meet air quality, carbon dioxide emission
10 reduction, or energy security goals;

11 (B) encourage or require the use of energy
12 sources other than natural gas, including coal,
13 nuclear, and renewable sources;

14 (C) support technologies to develop alter-
15 native sources of natural gas and synthetic gas,
16 including coal gasification technologies;

17 (D) encourage or require the use of energy
18 conservation and demand side management
19 practices; and

20 (E) affect access to domestic natural gas
21 supplies; and

22 (5) recommendations for Federal actions to
23 achieve the purposes described in subsection (b), in-
24 cluding recommendations that—

1 (A) encourage or require the use of energy
2 sources other than natural gas, including coal,
3 nuclear, and renewable sources;

4 (B) encourage or require the use of energy
5 conservation or demand side management prac-
6 tices;

7 (C) support technologies for the develop-
8 ment of alternative sources of natural gas and
9 synthetic gas, including coal gasification tech-
10 nologies; and

11 (D) would improve access to domestic nat-
12 ural gas supplies.

13 (d) CONSULTATION.—In preparing the report under
14 subsection (a), the Secretary shall consult with—

15 (1) experts in natural gas supply and demand;

16 and

17 (2) representatives of—

18 (A) State and local governments;

19 (B) tribal organizations; and

20 (C) consumer and other organizations.

21 (e) HEARINGS.—In preparing the report under sub-
22 section (a), the Secretary may hold public hearings and
23 provide other opportunities for public comment, as the
24 Secretary considers appropriate.

1 **SEC. 1621. SPLIT-ESTATE FEDERAL OIL AND GAS LEASING**
2 **AND DEVELOPMENT PRACTICES.**

3 (a) REVIEW.—

4 (1) IN GENERAL.—In consultation with affected
5 private surface owners, representatives of the oil and
6 gas industry, and other interested parties, the Sec-
7 retary of the Interior shall undertake a review of the
8 current policies and practices with respect to man-
9 agement of Federal subsurface oil and gas develop-
10 ment activities and the effects of those activities on
11 the privately owned surface.

12 (2) INCLUSIONS.—The review shall include—

13 (A) a comparison of the rights and respon-
14 sibilities under existing mineral and land law
15 for the owner of a Federal mineral lease, the
16 private surface owners and the Department;

17 (B) a comparison of the surface owner
18 consent provisions in section 714 of the Surface
19 Mining Control and Reclamation Act of 1977
20 (30 U.S.C. 1304) concerning surface mining of
21 Federal coal deposits and the surface owner
22 consent provisions for oil and gas development,
23 including coalbed methane production;

24 (C) an analysis and comparison of existing
25 State laws addressing surface owner protection
26 on split estates in which the surface estate is

1 privately held and the subsurface estate is fed-
2 erally owned, or other split estate situations;
3 and

4 (D) recommendations for administrative or
5 legislative action necessary to facilitate reason-
6 able access for Federal oil and gas activities
7 while addressing surface owner concerns and
8 minimizing impacts to private surface.

9 (b) REPORT.—The Secretary of the Interior shall re-
10 port the results of such review to Congress not later than
11 180 days after the date of enactment of this Act.

12 **SEC. 1622. RESOLUTION OF FEDERAL RESOURCE DEVELOP-**
13 **MENT CONFLICTS IN THE POWDER RIVER**
14 **BASIN.**

15 (a) REVIEW.—The Secretary of the Interior shall re-
16 view Federal and State laws in existence on the date of
17 enactment of this Act in order to resolve any conflict relat-
18 ing to the Powder River Basin in Wyoming and Montana
19 between—

20 (1) the development of Federal coal; and

21 (2) the development of Federal and non-Federal
22 coalbed methane.

23 (b) REPORT.—Not later than 180 days after the date
24 of enactment of this Act, the Secretary of the Interior
25 shall submit to Congress a report that—

1 (1) describes methods of resolving a conflict de-
2 scribed in subsection (a); and

3 (2) identifies a method preferred by the Sec-
4 retary of the Interior, including proposed legislative
5 language, if any, required to implement the method.

6 **SEC. 1623. STUDY OF ENERGY EFFICIENCY STANDARDS.**

7 (a) STUDY.—The Secretary shall enter into a con-
8 tract with the National Academy of Sciences under which
9 the National Academy of Sciences, not later than 1 year
10 after the date of enactment of this Act, shall conduct a
11 study of whether the goals of energy efficiency standards
12 are best served—

13 (1) by measuring energy consumed, and effi-
14 ciency improvements, at the site of energy consump-
15 tion; or

16 (2) through the full fuel cycle, beginning at the
17 source of energy production.

18 (b) REPORT.—Not later than 1 year after the date
19 of enactment of this Act, the Secretary shall submit to
20 Congress a report on the study under subsection (a).

21 **SEC. 1624. TELECOMMUTING STUDY.**

22 (a) DEFINITIONS.—In this section:

23 (1) FEDERAL EMPLOYEE.—The term “Federal
24 employee” has the meaning given the term “em-

1 ployee” in section 2105 of title 5, United States
2 Code.

3 (2) TELECOMMUTING.—The term ‘telecom-
4 muting” means the performance of work functions
5 using communications technologies, which eliminates
6 or substantially reduces the need to commute to and
7 from traditional worksites.

8 (b) STUDY REQUIRED.—The Secretary, in consulta-
9 tion with the Chairperson of the Federal Energy Regu-
10 latory Commission, the Director of the Office of Personnel
11 Management, the Administrator of General Services, and
12 the Administrator of National Telecommunications and
13 Information Administration, shall conduct a study of the
14 energy conservation implications of the widespread adop-
15 tion of telecommuting by Federal employees in the United
16 States.

17 (c) INCLUSIONS.—The study under subsection (b)
18 shall include an analysis of the following subjects in rela-
19 tion to the energy saving potential of telecommuting by
20 Federal employees:

21 (1) Reductions of energy use and energy costs
22 in commuting and regular office heating, cooling,
23 and other operations.

24 (2) Other energy reductions accomplished by
25 telecommuting.

1 (3) Existing regulatory barriers that hamper
2 telecommuting, including barriers to broadband tele-
3 communications services deployment.

4 (4) Collateral benefits to the environment, fam-
5 ily life, and other values.

6 (d) REPORT.—Not later than 180 days after the date
7 of enactment of this Act, the Secretary shall submit to
8 the President and Congress a report on the study under
9 subsection (b), including a description of the results of the
10 analysis of each of subject referred to in subsection (c).

11 **SEC. 1625. OIL BYPASS FILTRATION TECHNOLOGY.**

12 The Secretary and the Administrator of the Environ-
13 mental Protection Agency shall—

14 (1) conduct a joint study of the benefits of oil
15 bypass filtration technology in—

16 (A) reducing demand for oil; and

17 (B) protecting the environment;

18 (2) evaluate various products and manufactur-
19 ers with respect to oil bypass filtration technology;
20 and

21 (3) after conducting the evaluation under para-
22 graph (2), examine the feasibility of using oil bypass
23 filtration technology in Federal motor vehicle fleets.

24 **SEC. 1626. TOTAL INTEGRATED THERMAL SYSTEMS.**

25 The Secretary shall—

1 (1) conduct a study of the benefits of total inte-
2 grated thermal systems in—

3 (A) reducing demand for oil; and

4 (B) protecting the environment; and

5 (2) examine the feasibility of using total inte-
6 grated thermal systems in Federal motor vehicle
7 fleets (including the motor vehicle fleet of the De-
8 partment of Defense).

9 **SEC. 1627. UNIVERSITY COLLABORATION.**

10 (a) REPORT.—Not later than 2 years after the date
11 of enactment of this Act, the Secretary shall submit to
12 Congress a report that examines the feasibility of pro-
13 moting collaborations between large institutions of higher
14 education and small institutions of higher education (as
15 determined by the Secretary) through grants, contracts,
16 and cooperative agreements made by the Secretary for en-
17 ergy projects.

18 (b) CONSIDERATION.—In preparing the report under
19 subsection (a), the Secretary shall take into consideration
20 the feasibility of providing incentives for including small
21 institutions of higher education (including institutions
22 that primarily serve minorities), as determined by the Sec-
23 retary, in—

24 (1) energy research grants;

25 (2) contracts; and

1 (3) cooperative agreements.

2 **SEC. 1628. RELIABILITY AND CONSUMER PROTECTION AS-**
3 **SESSMENT.**

4 (a) ASSESSMENT.—Not later than 5 years after the
5 date of enactment of this Act, and every 5 years there-
6 after, the Chairperson of the Federal Energy Regulatory
7 Commission shall assess the effects of the exemption of
8 electric cooperatives and government-owned utilities from
9 regulation by the Federal Energy Regulatory Commission
10 under section 201(f) of the Federal Power Act (16 U.S.C.
11 824).

12 (b) INCLUSIONS.—The assessment shall include an
13 analysis of—

14 (1) the effects of the exemption described in
15 subsection (a) on the reliability of interstate electric
16 transmission networks;

17 (2) the benefits to consumers, and increases in
18 efficiency, provided by competitive wholesale elec-
19 tricity markets;

20 (3) just and reasonable rates for electricity con-
21 sumers; and

22 (4) the ability of the Federal Energy Regu-
23 latory Commission to protect electricity consumers.

24 (c) RECOMMENDATIONS.—If the Chairperson deter-
25 mines that the exemption described in subsection (a) ad-

1 versely affects consumers or the reliability of the electric
2 system, the Chairperson shall make recommendations to
3 Congress in accordance with section 311 of the Federal
4 Power Act (16 U.S.C. 825j).