

Union Calendar No. 140

106TH CONGRESS
1ST Session

H. R. 1655

[Report No. 106-243]

A BILL

To authorize appropriations for fiscal years 2000 and 2001 for the civilian energy and scientific research, development, and demonstration and related commercial application of energy technology programs, projects, and activities of the Department of Energy, and for other purposes.

JULY 20, 1999

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

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IN THE HOUSE OF REPRESENTATIVES

MAY 3, 1999

Mr. CALVERT introduced the following bill; which was referred to the Committee on Science

JULY 20, 1999

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in *italic*]

[For text of introduced bill, see copy of bill as introduced on May 3, 1999]

A BILL

To authorize appropriations for fiscal years 2000 and 2001 for the civilian energy and scientific research, development, and demonstration and related commercial application of energy technology programs, projects, and activities of the Department of Energy, 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 “Department of Energy*
5 *Research, Development, and Demonstration Authorization*
6 *Act of 1999”.*

7 **SEC. 2. DEFINITIONS.**

8 *For the purposes of this Act, the term—*

9 (1) *“Department” means the Department of En-*
10 *ergy; and*

11 (2) *“Secretary” means the Secretary of Energy.*

12 **SEC. 3. AUTHORIZATION OF APPROPRIATIONS.**

13 (a) *ENERGY SUPPLY.—There are authorized to be ap-*
14 *propriated to the Secretary for Energy Supply civilian en-*
15 *ergy and scientific research, development, and demonstra-*
16 *tion and related commercial application of energy tech-*
17 *nology operation and maintenance and construction pro-*
18 *grams, projects, and activities for which specific sums are*
19 *not authorized under other authority of law \$432,366,000*
20 *for fiscal year 2000 and \$452,577,000 for fiscal year 2001,*
21 *to remain available through the end of fiscal year 2002,*
22 *of which—*

23 (1) *\$316,624,000 for fiscal year 2000 and*
24 *\$325,321,000 for fiscal year 2001 shall be for Solar*
25 *and Renewable Resources Technologies, including—*

1 (A) \$3,708,000 for fiscal year 2000 and
2 \$3,819,000 for fiscal year 2001 for *Solar Build-*
3 *ing Technology Research;*

4 (B) \$83,345,000 for fiscal year 2000 and
5 \$85,845,000 for fiscal year 2001 for *Photovoltaic*
6 *Energy Systems;*

7 (C) \$17,510,000 for fiscal year 2000 and
8 \$18,035,000 for fiscal year 2001 for *Concen-*
9 *trating Solar Power, of which \$2,000,000 for fis-*
10 *cal year 2000 and \$3,000,000 for fiscal year*
11 *2001 shall be for experimental beamed power*
12 *technology demonstrations;*

13 (D) \$75,396,000 for fiscal year 2000 and
14 \$77,658,000 for fiscal year 2001 for *Biopower/*
15 *Biofuels Energy Systems;*

16 (E) \$35,814,000 for fiscal year 2000 and
17 \$36,889,000 for fiscal year 2001 for *Wind En-*
18 *ergy Systems;*

19 (F) \$1,500,000 for fiscal year 2000 and
20 \$1,500,000 for fiscal year 2001 for the *Renewable*
21 *Energy Production Incentive Program;*

22 (G) \$6,000,000 for fiscal year 2000 and
23 \$6,000,000 for fiscal year 2001 for the *Inter-*
24 *national Solar Energy Program;*

1 (H) \$1,100,000 for fiscal year 2000 and
2 \$1,100,000 for fiscal year 2001 for the National
3 Renewable Energy Laboratory;

4 (I) \$33,500,000 for fiscal year 2000 and
5 \$35,000,000 for fiscal year 2001 for Geothermal,
6 of which \$4,000,000 for fiscal year 2000 and
7 \$4,615,000 for fiscal year 2001 shall be derived
8 from amounts otherwise authorized under this
9 subsection, from savings resulting from reduc-
10 tions in contractor travel pursuant to section
11 10(d);

12 (J) \$3,348,000 for fiscal year 2000 and
13 \$3,448,000 for fiscal year 2001 for Hydropower;

14 (K) \$41,303,000 for fiscal year 2000 and
15 \$42,542,000 for fiscal year 2001 for Electric En-
16 ergy Systems and Storage; and

17 (L) \$18,100,000 for fiscal year 2000 and
18 \$18,100,000 for fiscal year 2001 for Program Di-
19 rection; and

20 (2) \$115,742,000 for fiscal year 2000 and
21 \$127,256,000 for fiscal year 2001 shall be for Nuclear
22 Energy, including—

23 (A) \$37,000,000 for fiscal year 2000 and
24 \$37,000,000 for fiscal year 2001 for Advanced
25 Radioisotope Power Systems;

1 (B) \$6,070,000 for fiscal year 2000 and
2 \$6,070,000 for fiscal year 2001 for Test Reactor
3 Area Landlord operation and maintenance;

4 (C) \$1,430,000 for fiscal year 2000 and
5 \$1,944,000 for fiscal year 2001 for construction
6 of Project 99–E–200, Test Reactor Area Electric
7 Utility Upgrade, Idaho National Engineering
8 and Environmental Laboratory;

9 (D) \$1,500,000 for fiscal year 2000 and
10 \$2,500,000 for fiscal year 2001 for construction
11 of Project 95–E–201, Test Reactor Area Fire and
12 Life Safety Improvements, Idaho National Engi-
13 neering and Environmental Laboratory;

14 (E) \$13,500,000 for fiscal year 2000 and
15 \$16,000,000 for fiscal year 2001 for University
16 Reactor Fuel Assistance and Support;

17 (F) \$5,000,000 for fiscal year 2000 and
18 \$7,500,000 for fiscal year 2001 for Nuclear En-
19 ergy Plant Optimization;

20 (G) \$30,000,000 for fiscal year 2000 and
21 \$35,000,000 for fiscal year 2001 for the Nuclear
22 Energy Research Initiative; and

23 (H) \$21,242,000 for fiscal year 2000 and
24 \$21,242,000 for fiscal year 2001 for Program Di-
25 rection.

1 (b) *SCIENCE.*—*There are authorized to be appro-*
2 *priated to the Secretary for Science scientific and civilian*
3 *energy research, development, and demonstration operation*
4 *and maintenance and construction programs, projects, and*
5 *activities for which specific sums are not authorized under*
6 *other authority of law \$2,657,761,000 for fiscal year 2000*
7 *and \$2,691,465,000 for fiscal year 2001, to remain avail-*
8 *able until expended, of which—*

9 (1) *\$715,090,000 for fiscal year 2000 and*
10 *\$753,110,000 for fiscal year 2001 shall be for High*
11 *Energy Physics, including—*

12 (A) *\$235,190,000 for fiscal year 2000 and*
13 *\$246,950,000 for fiscal year 2001 for High En-*
14 *ergy Physics Research and Technology;*

15 (B) *\$451,200,000 for fiscal year 2000 and*
16 *\$473,760,000 for fiscal year 2001 for High En-*
17 *ergy Physics Facility Operations;*

18 (C) *\$2,000,000 for fiscal year 2000 and*
19 *\$5,200,000 for fiscal year 2001 for construction*
20 *of Project 00–G–307, Research Office Building,*
21 *Stanford Linear Accelerator Center;*

22 (D) *\$4,700,000 for fiscal year 2000 and*
23 *\$4,200,000 for fiscal year 2001 for construction*
24 *of Project 99–G–306, Wilson Hall Safety Im-*

1 *provements Project, Fermi National Accelerator*
2 *Laboratory; and*

3 *(E) \$22,000,000 for fiscal year 2000 and*
4 *\$23,000,000 for fiscal year 2001 for construction*
5 *of Project 98–G–304, Neutrinos at the Main In-*
6 *jector, Fermi National Accelerator Laboratory;*

7 *(2) \$357,714,000 for fiscal year 2000 and*
8 *\$375,600,000 for fiscal year 2001 shall be for Nuclear*
9 *Physics;*

10 *(3) \$413,674,000 for fiscal year 2000 and*
11 *\$434,357,000 for fiscal year 2001 shall be for Biologi-*
12 *cal and Environmental Research;*

13 *(4) \$698,800,000 for fiscal year 2000 and*
14 *\$733,740,000 for fiscal year 2001 shall be for Basic*
15 *Energy Sciences, including—*

16 *(A) \$405,390,000 for fiscal year 2000 and*
17 *\$425,660,000 for fiscal year 2001 for Materials*
18 *Sciences Research and Facilities Operations;*

19 *(B) \$217,179,000 for fiscal year 2000 and*
20 *\$228,038,000 for fiscal year 2001 for Chemical*
21 *Sciences Research and Facilities Operations;*

22 *(C) \$18,820,000 for fiscal year 2000 and*
23 *\$19,761,000 for fiscal year 2001 for Engineering*
24 *Research;*

1 (D) \$26,056,000 for fiscal year 2000 and
2 \$27,359,000 for fiscal year 2001 for Geosciences
3 Research; and

4 (E) \$31,355,000 for fiscal year 2000 and
5 \$32,923,000 for fiscal year 2001 for Energy Bio-
6 sciences;

7 (5) \$31,474,000 for fiscal year 2000 and
8 \$32,333,000 for fiscal year 2001 shall be for Com-
9 putational and Technology Research, including—

10 (A) \$17,174,000 for fiscal year 2000 and
11 \$18,033,000 for fiscal year 2001 for Mathe-
12 matical, Information, and Computational
13 Sciences; and

14 (B) \$14,300,000 for fiscal year 2000 and
15 \$14,300,000 for fiscal year 2001 for Laboratory
16 Technology Research;

17 (6) \$1,000,000 for fiscal year 2000 and
18 \$1,000,000 for fiscal year 2001 shall be for Energy
19 Research Analysis;

20 (7) \$22,309,000 for fiscal year 2000 and
21 \$23,425,000 for fiscal year 2001 shall be for Multipro-
22 gram Energy Laboratories—Facility Support;

23 (8) \$250,000,000 for fiscal year 2000 and
24 \$275,000,000 for fiscal year 2001 shall be for Fusion
25 Energy Sciences, including \$13,600,000 for fiscal

1 *year 2000 and \$19,400,000 for fiscal year 2001 for*
2 *Tokamak Fusion Test Reactor Decontamination and*
3 *Decommissioning;*

4 (9) *\$49,800,000 for fiscal year 2000 and*
5 *\$49,800,000 for fiscal year 2001 shall be for Science*
6 *Program Direction;*

7 (10) *\$17,900,000 for fiscal year 2000 and*
8 *\$13,100,000 for fiscal year 2001 shall be for Spall-*
9 *ation Neutron Source research and development; and*

10 (11) *\$100,000,000 for fiscal year 2000 shall be*
11 *for construction of Project 99–E–334, Spallation Neu-*
12 *tron Source, Oak Ridge National Laboratory, Oak*
13 *Ridge, Tennessee.*

14 (c) *FOSSIL ENERGY RESEARCH AND DEVELOPMENT.—*
15 *There are authorized to be appropriated to the Secretary*
16 *for Fossil Energy Research and Development civilian en-*
17 *ergy and scientific research, development, and demonstra-*
18 *tion and related commercial application of energy tech-*
19 *nology operation and maintenance programs, projects, and*
20 *activities for which specific sums are not authorized under*
21 *other authority of law \$397,564,000 for fiscal year 2000*
22 *and \$427,102,000 for fiscal year 2001, to remain available*
23 *through the end of fiscal year 2002, of which—*

1 (1) \$126,609,000 for fiscal year 2000 and
2 \$126,614,000 for fiscal year 2001 shall be for Coal,
3 including—

4 (A) \$5,250,000 for fiscal year 2000 and
5 \$5,407,000 for fiscal year 2001 for Coal Prepa-
6 ration;

7 (B) \$1,641,000 for fiscal year 2000 for Di-
8 rect Liquefaction;

9 (C) \$6,659,000 for fiscal year 2000 and
10 \$6,859,000 for fiscal year 2001 for Indirect Liq-
11 uefaction;

12 (D) \$2,200,000 for fiscal year 2000 and
13 \$2,310,000 for fiscal year 2001 for Advanced
14 Clean Fuels Research Advanced Research and
15 Environmental Technology;

16 (E) \$3,000,000 for fiscal year 2000 for Ad-
17 vanced Pulverized Coal-Fired Powerplant;

18 (F) \$7,010,000 for fiscal year 2000 and
19 \$7,220,000 for fiscal year 2001 for Indirect
20 Fired Cycle;

21 (G) \$38,661,000 for fiscal year 2000 and
22 \$39,821,000 for fiscal year 2001 for High-Effi-
23 ciency-Integrated Gasification Combined Cycle;

1 (H) \$15,077,000 for fiscal year 2000 and
2 \$15,529,000 for fiscal year 2001 for *High-Effi-*
3 *ciency Pressurized Fluidized Bed*;

4 (I) \$23,864,000 for fiscal year 2000 and
5 \$25,057,000 for fiscal year 2001 for *Advanced*
6 *Clean/Efficient Power Systems Advanced Re-*
7 *search and Environmental Technology*; and

8 (J) \$23,247,000 for fiscal year 2000 and
9 \$24,410,000 for fiscal year 2001 for *Advanced*
10 *Research and Technology Development*;

11 (2) \$50,574,000 for fiscal year 2000 and
12 \$52,091,000 for fiscal year 2001 shall be for *Oil Tech-*
13 *nology, including—*

14 (A) \$31,720,000 for fiscal year 2000 and
15 \$32,671,000 for fiscal year 2001 for *Exploration*
16 *and Production Supporting Research*;

17 (B) \$8,034,000 for fiscal year 2000 and
18 \$8,275,000 for fiscal year 2001 for *Recovery*
19 *Field Demonstrations*; and

20 (C) \$10,820,000 for fiscal year 2000 and
21 \$11,145,000 for fiscal year 2001 for *Oil Tech-*
22 *nology Effective Environmental Protection*;

23 (3) \$107,916,000 for fiscal year 2000 and
24 \$108,831,000 for fiscal year 2001 shall be for *Gas,*
25 *including—*

1 (A) \$14,932,000 for fiscal year 2000 and
2 \$15,380,000 for fiscal year 2001 for Natural Gas
3 Research Exploration and Production;

4 (B) \$1,030,000 for fiscal year 2000 and
5 \$1,061,000 for fiscal year 2001 for Natural Gas
6 Research Delivery and Storage;

7 (C) \$41,808,000 for fiscal year 2000 and
8 \$41,808,000 for fiscal year 2001 for Natural Gas
9 Research Advanced Turbine Systems;

10 (D) \$9,330,000 for fiscal year 2000 and
11 \$9,610,000 for fiscal year 2001 for Natural Gas
12 Research Emerging Processing Technology Ap-
13 plications;

14 (E) \$3,108,000 for fiscal year 2000 and
15 \$3,201,000 for fiscal year 2001 for Natural Gas
16 Effective Environmental Protection;

17 (F) \$1,260,000 for fiscal year 2000 and
18 \$1,323,000 for fiscal year 2001 for Fuel Cells
19 Advanced Research; and

20 (G) \$36,449,000 for fiscal year 2000 and
21 \$36,449,000 for fiscal year 2001 for Fuel Cells
22 Systems;

23 (4) \$71,114,000 for fiscal year 2000 and
24 \$72,796,000 for fiscal year 2001 shall be for Program
25 Direction and Management Support, including—

1 (A) \$15,049,000 for fiscal year 2000 and
2 \$15,049,000 for fiscal year 2001 for Head-
3 quarters Program Direction; and

4 (B) \$56,065,000 for fiscal year 2000 and
5 \$57,747,000 for fiscal year 2001 for Energy
6 Technology Center Program Direction;

7 (5) \$2,000,000 for fiscal year 2000 and
8 \$2,060,000 for fiscal year 2001 shall be for GP-F-
9 100, Plant and Capital Equipment, at Energy Tech-
10 nology Center sites;

11 (6) \$7,148,000 for fiscal year 2000 and
12 \$7,537,000 for fiscal year 2001 shall be for Coopera-
13 tive Research and Development;

14 (7) \$2,173,000 for fiscal year 2000 and
15 \$2,173,000 for fiscal year 2001 shall be for Fuels Con-
16 version, Natural Gas, and Electricity;

17 (8) \$5,000,000 for fiscal year 2000 and
18 \$5,000,000 for fiscal year 2001 shall be for Advanced
19 Metallurgical Processes; and

20 (9) \$25,000,000 for fiscal year 2000 and
21 \$50,000,000 for fiscal year 2001 shall be for a Fossil
22 Energy Science Initiative to be managed by the As-
23 sistant Secretary for Fossil Energy in consultation
24 with the Director of the Office of Science, for grants
25 to be competitively awarded and subject to peer re-

1 *view for research relating to fossil energy. The Sec-*
2 *retary shall submit to the Committee on Science and*
3 *the Committee on Appropriations of the House of*
4 *Representatives, and to the Committee on Energy and*
5 *Natural Resources and the Committee on Appropria-*
6 *tions of the Senate, an annual report on the activities*
7 *of the Fossil Energy Science Initiative, including a*
8 *description of the process used to award the funds and*
9 *an explanation of how the research relates to fossil en-*
10 *ergy.*

11 *(d) ENERGY CONSERVATION RESEARCH AND DEVEL-*
12 *OPMENT.—There are authorized to be appropriated to the*
13 *Secretary for Energy Conservation Research and Develop-*
14 *ment civilian energy and scientific research, development,*
15 *and demonstration and related application of energy tech-*
16 *nology operation and maintenance programs, projects, and*
17 *activities for which specific sums are not authorized under*
18 *other authority of law \$490,212,000 for fiscal year 2000*
19 *and \$527,626,000 for fiscal year 2001, to remain available*
20 *through the end of fiscal year 2002, of which—*

21 *(1) \$204,935,000 for fiscal year 2000 and*
22 *\$210,845,000 for fiscal year 2001 shall be for the*
23 *Transportation Sector, including—*

1 (A) \$129,714,000 for fiscal year 2000 and
2 \$133,606,000 for fiscal year 2001 for Vehicle
3 Technology Research and Development;

4 (B) \$23,500,000 for fiscal year 2000 and
5 \$24,205,000 for fiscal year 2001 for Fuels Utili-
6 zation Research and Development, of which
7 \$2,500,000 for fiscal year 2000 and \$2,750,000
8 for fiscal year 2001 shall be for biodiesel fuel re-
9 search and development;

10 (C) \$5,196,000 for fiscal year 2000 and
11 \$5,352,000 for fiscal year 2001 for Technology
12 Deployment;

13 (D) \$38,599,000 for fiscal year 2000 and
14 \$39,757,000 for fiscal year 2001 for Materials
15 Technology; and

16 (E) \$7,925,000 for fiscal year 2000 and
17 \$7,925,000 for fiscal year 2001 for Management
18 and Planning;

19 (2) \$155,131,000 for fiscal year 2000 and
20 \$159,534,000 for fiscal year 2001 shall be for the In-
21 dustry Sector, including—

22 (A) \$59,180,000 for fiscal year 2000 and
23 \$60,955,000 for fiscal year 2001 for Industries of
24 the Future (Specific);

1 (B) \$87,600,000 for fiscal year 2000 and
2 \$90,228,000 for fiscal year 2001 for Industries of
3 the Future (Crosscutting); and

4 (C) \$8,351,000 for fiscal year 2000 and
5 \$8,351,000 for fiscal year 2001 for Management
6 and Planning;

7 (3) \$70,014,000 for fiscal year 2000 and
8 \$72,115,000 for fiscal year 2001 shall be for the
9 Building Technology, State and Community Sector
10 (nongrants), including—

11 (A) \$55,870,000 for fiscal year 2000 and
12 \$57,546,000 for fiscal year 2001 for Building
13 Research; and

14 (B) \$14,144,000 for fiscal year 2000 and
15 \$14,568,000 for fiscal year 2001 for Building
16 Technology Assistance (nongrants);

17 (4) \$35,132,000 for fiscal year 2000 and
18 \$35,132,000 for fiscal year 2001 shall be for Policy
19 and Management; and

20 (5) \$25,000,000 for fiscal year 2000 and
21 \$50,000,000 for fiscal year 2001 shall be for an En-
22 ergy Efficiency Science Initiative to be managed by
23 the Assistant Secretary for Energy Efficiency and Re-
24 newable Energy in consultation with the Director of
25 the Office of Science, for grants to be competitively

1 *awarded and subject to peer review for research relat-*
2 *ing to energy efficiency. The Secretary shall submit to*
3 *the Committee on Science and the Committee on Ap-*
4 *propriations of the House of Representatives, and to*
5 *the Committee on Energy and Natural Resources and*
6 *the Committee on Appropriations of the Senate, an*
7 *annual report on the activities of the Energy Effi-*
8 *ciency Science Initiative, including a description of*
9 *the process used to award the funds and an expla-*
10 *nation of how the research relates to energy efficiency.*

11 **SEC. 4. GAS HYDRATE ENERGY AND SCIENTIFIC AND ENVI-**
12 **RONMENTAL RESEARCH AND DEVELOPMENT**
13 **PROGRAM.**

14 (a) *IN GENERAL.*—*Not later than 180 days after the*
15 *date of enactment of this Act, the Secretary, acting through*
16 *the Assistant Secretary for Fossil Energy, shall commence*
17 *a program of gas hydrate energy and scientific and envi-*
18 *ronmental research and development.*

19 (b) *GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS,*
20 *INTERAGENCY FUNDS TRANSFER AGREEMENTS, AND FIELD*
21 *WORK PROPOSALS.*—

22 (1) *ASSISTANCE.*—*The Secretary, acting through*
23 *the Assistant Secretary for Fossil Energy, may award*
24 *grants or contracts to, or enter into cooperative agree-*
25 *ments with, institutions of higher education and in-*

1 *dustrial enterprises to conduct energy and scientific*
2 *and environmental research, development, and dem-*
3 *onstration programs on gas hydrate.*

4 (2) *PEER REVIEW.*—*Funds made available under*
5 *paragraph (1) for initiating contracts, grants, cooper-*
6 *ative agreements, interagency funds transfer agree-*
7 *ments, and field work proposals shall be made avail-*
8 *able based on a competitive selection process and a*
9 *peer review of proposals. Exceptions shall be consid-*
10 *ered on a case-by-case basis, and reported by the Sec-*
11 *retary, acting through the Assistant Secretary for*
12 *Fossil Energy, to the Committee on Science of the*
13 *House of Representatives and the Committee on En-*
14 *ergy and Natural Resources of the Senate 30 days*
15 *prior to any such award.*

16 (c) *CONSULTATION.*—*The Secretary, acting through*
17 *the Assistant Secretary for Fossil Energy, may establish an*
18 *advisory panel consisting of experts from industry, institu-*
19 *tions of higher education, and other entities as the Secretary*
20 *considers appropriate, to assist in developing recommenda-*
21 *tions and priorities for the gas hydrate research and devel-*
22 *opment program carried out under subsection (a).*

23 (d) *LIMITATIONS.*—

24 (1) *ADMINISTRATIVE EXPENSES.*—*Not more than*
25 *5 percent of the amount made available to carry out*

1 *this section for a fiscal year may be used by the Sec-*
2 *retary, acting through the Assistant Secretary for*
3 *Fossil Energy, for expenses associated with the ad-*
4 *ministration of the program carried out under sub-*
5 *section (a).*

6 (2) *CONSTRUCTION COSTS.*—*None of the funds*
7 *made available to carry out this section may be used*
8 *for the construction of a new building or the acquisi-*
9 *tion, expansion, remodeling, or alteration of an exist-*
10 *ing building (including site grading and improve-*
11 *ment and architect fees).*

12 (e) *DEFINITIONS.*—*For purposes of this section:*

13 (1) *CONTRACT.*—*The term “contract” means a*
14 *procurement contract within the meaning of section*
15 *6303 of title 31, United States Code.*

16 (2) *COOPERATIVE AGREEMENT.*—*The term “co-*
17 *operative agreement” means a cooperative agreement*
18 *within the meaning of section 6305 of title 31, United*
19 *States Code.*

20 (3) *GRANT.*—*The term “grant” means a grant*
21 *awarded under a grant agreement, within the mean-*
22 *ing of section 6304 of title 31, United States Code.*

23 (4) *INSTITUTION OF HIGHER EDUCATION.*—*The*
24 *term “institution of higher education” means an in-*
25 *stitution of higher education, within the meaning of*

1 *section 1201(a) of the Higher Education Act of 1965*
2 *(20 U.S.C. 1141(a)).*

3 *(f) AUTHORIZATION OF APPROPRIATIONS.—Of the*
4 *amounts authorized under section 3(c)(3), \$5,000,000 for*
5 *fiscal year 2000 and \$7,500,000 for fiscal year 2001 shall*
6 *be available for carrying out this section.*

7 **SEC. 5. NOTICE.**

8 *(a) REPROGRAMMING.—The Secretary may use for*
9 *any authorized activities of the Department under this*
10 *Act—*

11 *(1) up to the lesser of \$250,000 or 5 percent of*
12 *the total funding for a fiscal year of a civilian energy*
13 *or scientific research, development, or demonstration*
14 *or related commercial application of energy tech-*
15 *nology program, project, or activity of the Depart-*
16 *ment; or*

17 *(2) after the expiration of 60 days after trans-*
18 *mitting to the Committee on Science and the Com-*
19 *mittee on Appropriations of the House of Representa-*
20 *tives, and to the Committee on Energy and Natural*
21 *Resources and the Committee on Appropriations of*
22 *the Senate, a report described in subsection (b), up to*
23 *25 percent of the total funding for a fiscal year of a*
24 *civilian energy or scientific research, development, or*
25 *demonstration or related commercial application of*

1 *energy technology program, project, or activity of the*
2 *Department.*

3 *(b) REPORT.—(1) The report referred to in subsection*
4 *(a)(2) is a report containing a full and complete statement*
5 *of the action proposed to be taken and the facts and cir-*
6 *cumstances relied upon in support of such proposed action.*

7 *(2) In the computation of the 60-day period under sub-*
8 *section (a)(2), there shall be excluded any day on which*
9 *either House of Congress is not in session because of an*
10 *adjournment of more than 3 days to a day certain.*

11 *(c) LIMITATIONS.—In no event may funds be used pur-*
12 *suant to subsection (a) for a program, project, or activity*
13 *for which funding has been requested to the Congress but*
14 *which has not been funded by the Congress.*

15 *(d) NOTICE OF REORGANIZATION.—The Secretary*
16 *shall provide notice to the Committee on Science and the*
17 *Committee on Appropriations of the House of Representa-*
18 *tives, and to the Committee on Energy and Natural Re-*
19 *sources and the Committee on Appropriations of the Senate,*
20 *not later than 15 days before any major reorganization of*
21 *any civilian energy or scientific research, development, or*
22 *demonstration or related commercial application of energy*
23 *technology program, project, or activity of the Department.*

24 *(e) COPY OF REPORTS.—The Secretary shall provide*
25 *copies to the Committee on Science and the Committee on*

1 *Appropriations of the House of Representatives, and to the*
2 *Committee on Energy and Natural Resources and the Com-*
3 *mittee on Appropriations of the Senate, of any report relat-*
4 *ing to the civilian energy or scientific research, develop-*
5 *ment, or demonstration or related commercial application*
6 *of energy technology programs, projects, and activities of*
7 *the Department prepared at the direction of any committee*
8 *of Congress.*

9 **SEC. 6. LIMITATION ON DEMONSTRATIONS.**

10 *The Department shall provide funding for civilian en-*
11 *ergy or scientific or related commercial application of en-*
12 *ergy technology demonstration programs, projects, and ac-*
13 *tivities only for technologies or processes that can be reason-*
14 *ably expected to yield new, measurable benefits to the cost,*
15 *efficiency, or performance of the technology or process.*

16 **SEC. 7. LIMITS ON GENERAL PLANT PROJECTS.**

17 *If, at any time during the construction of a civilian*
18 *energy or scientific research, development, or demonstration*
19 *or related commercial application of energy technology*
20 *project of the Department for which no specific funding level*
21 *is provided by law, the estimated cost (including any revi-*
22 *sion thereof) of the project exceeds \$2,000,000, the Secretary*
23 *may not continue such construction unless the Secretary*
24 *has furnished a complete report to the Committee on Science*
25 *and the Committee on Appropriations of the House of Rep-*

1 *representatives, and to the Committee on Energy and Natural*
2 *Resources and the Committee on Appropriations of the Sen-*
3 *ate, explaining the project and the reasons for the estimate*
4 *or revision.*

5 **SEC. 8. LIMITS ON CONSTRUCTION PROJECTS.**

6 (a) *LIMITATION.*—*Except as provided in subsection*
7 *(b), construction on a civilian energy or scientific research,*
8 *development, or demonstration or related commercial appli-*
9 *cation of energy technology project of the Department for*
10 *which funding has been specifically provided by law may*
11 *not be started, and additional obligations may not be in-*
12 *curred in connection with the project above the authorized*
13 *funding amount, whenever the current estimated cost of the*
14 *construction project exceeds by more than 10 percent the*
15 *higher of—*

16 (1) *the amount authorized for the project, if the*
17 *entire project has been funded by the Congress; or*

18 (2) *the amount of the total estimated cost for the*
19 *project as shown in the most recent budget justifica-*
20 *tion data submitted to Congress.*

21 (b) *NOTICE.*—*An action described in subsection (a)*
22 *may be taken if—*

23 (1) *the Secretary has submitted to the Committee*
24 *on Science and the Committee on Appropriations of*
25 *the House of Representatives, and to the Committee*

1 *on Energy and Natural Resources and the Committee*
2 *on Appropriations of the Senate, a report on the pro-*
3 *posed actions and the circumstances making such ac-*
4 *tions necessary; and*

5 *(2) a period of 30 days has elapsed after the date*
6 *on which the report is received by the committees.*

7 *(c) EXCLUSION.—In the computation of the 30-day pe-*
8 *riod described in subsection (b)(2), there shall be excluded*
9 *any day on which either House of Congress is not in session*
10 *because of an adjournment of more than 3 days to a day*
11 *certain.*

12 *(d) EXCEPTION.—Subsections (a) and (b) shall not*
13 *apply to any construction project which has a current esti-*
14 *mated cost of less than \$2,000,000.*

15 **SEC. 9. AUTHORITY FOR CONCEPTUAL AND CONSTRUCTION**
16 **DESIGN.**

17 *(a) REQUIREMENT FOR CONCEPTUAL DESIGN.—(1)*
18 *Subject to paragraph (2) and except as provided in para-*
19 *graph (3), before submitting to Congress a request for funds*
20 *for a construction project that is in support of a civilian*
21 *energy or scientific research, development, or demonstration*
22 *or related commercial application of energy technology pro-*
23 *gram, project, or activity of the Department, the Secretary*
24 *shall complete a conceptual design for that project.*

1 (2) *If the estimated cost of completing a conceptual*
2 *design for a construction project exceeds \$750,000, the Sec-*
3 *retary shall submit to Congress a request for funds for the*
4 *conceptual design before submitting a request for funds for*
5 *the construction project.*

6 (3) *The requirement in paragraph (1) does not apply*
7 *to a request for funds for a construction project, the total*
8 *estimated cost of which is less than \$2,000,000.*

9 (b) *AUTHORITY FOR CONSTRUCTION DESIGN.—(1) The*
10 *Secretary may carry out construction design (including ar-*
11 *chitectural and engineering services) in connection with*
12 *any proposed construction project that is in support of a*
13 *civilian energy or scientific research, development, and*
14 *demonstration or related commercial application of energy*
15 *technology program, project, or activity of the Department*
16 *if the total estimated cost for such design does not exceed*
17 *\$250,000.*

18 (2) *If the total estimated cost for construction design*
19 *in connection with any construction project described in*
20 *paragraph (1) exceeds \$250,000, funds for such design must*
21 *be specifically authorized by law.*

22 **SEC. 10. LIMITS ON USE OF FUNDS.**

23 (a) *CONSTRUCTION OF SPALLATION NEUTRON SOURCE*
24 *PROJECT.—None of the funds authorized by section 3(b)(11)*
25 *may be obligated until—*

1 (1) *the Secretary certifies in writing to the Com-*
2 *mittee on Science of the House of Representatives and*
3 *the Committee on Energy and Natural Resources of*
4 *the Senate that senior project management positions*
5 *for the project have been filled by qualified individ-*
6 *uals; and*

7 (2) *the Secretary provides the Committee on*
8 *Science and the Committee on Appropriations of the*
9 *House of Representatives, and the Committee on En-*
10 *ergy and Natural Resources and the Committee on*
11 *Appropriations of the Senate, with—*

12 (A) *a cost baseline and project milestones*
13 *for each major construction and technical system*
14 *activity, consistent with the overall cost and*
15 *schedule submitted with the Department's fiscal*
16 *year 2000 budget, that have been reviewed and*
17 *certified by an independent entity, outside the*
18 *Department and having no financial interest in*
19 *the project, as the most cost-effective way to com-*
20 *plete the project;*

21 (B) *binding legal agreements that specify*
22 *the duties and obligations of each laboratory of*
23 *the Department in carrying out the project;*

24 (C) *a revised project management structure*
25 *that integrates the staff of the collaborating lab-*

1 *oratories working on the project under a single*
2 *project director, who shall have direct super-*
3 *visory responsibility over the carrying out of the*
4 *duties and obligations described in subparagraph*
5 *(B); and*

6 *(D) official delegation by the Secretary of*
7 *primary authority with respect to the project to*
8 *the project director; and*

9 *(3) the Comptroller General certifies to the Con-*
10 *gress that the total taxes and fees in any manner or*
11 *form paid by the Federal Government on the Spall-*
12 *ation Neutron Source and the property, activities,*
13 *and income of the Department relating to the Spall-*
14 *ation Neutron Source to the State of Tennessee or its*
15 *counties, municipalities, or any other subdivision*
16 *thereof, does not exceed the aggregate taxes and fees*
17 *for which the Federal Government would be liable if*
18 *the project were located in any other State that con-*
19 *tains a national laboratory of the Department.*

20 *The Secretary shall report on the Spallation Neutron*
21 *Source Project 99-E-334 annually, as part of the Depart-*
22 *ment's annual budget submission, including a description*
23 *of the achievement of milestones, a comparison of actual*
24 *costs to estimated costs, and any changes in estimated*
25 *project costs or schedule.*

1 (b) *INTERNATIONAL THERMONUCLEAR EXPERIMENTAL*
2 *REACTOR (ITER) ENGINEERING DESIGN ACTIVITIES*
3 *(EDA).*—None of the funds authorized by this Act may be
4 used either directly or indirectly for United States partici-
5 pation in International Thermonuclear Experimental Re-
6 actor (ITER) Engineering Design Activities (EDA).

7 (c) *OFFICE OF SCIENCE.*—None of the funds author-
8 ized by this Act may be used either directly or indirectly
9 to fund the salary of an individual holding the position
10 of Director or Deputy Director of the Office of Science, or
11 Associate Director (except for the Office of Laboratory Pol-
12 icy and the Office of Resource Management), or Director,
13 Office of Planning and Analysis within the Department's
14 Office of Science unless such individual holds a post-
15 graduate degree in science or engineering.

16 (d) *TRAVEL.*—Not more than 1 percent of the funds
17 authorized by this Act may be used either directly or indi-
18 rectly to fund travel costs of the Department or travel costs
19 for persons awarded contracts or subcontracts by the De-
20 partment. As part of the Department's annual budget re-
21 quest submission to the Congress, the Secretary shall submit
22 a report to the Committee on Science and the Committee
23 on Appropriations of the House of Representatives, and to
24 the Committee on Energy and Natural Resources and the

1 *Committee on Appropriations of the Senate, that*
2 *identifies—*

3 (1) *the estimated amount of travel costs by the*
4 *Department and for persons awarded contracts or*
5 *subcontracts by the Department for the fiscal year of*
6 *such budget submission, as well as for the 2 previous*
7 *fiscal years;*

8 (2) *the major purposes for such travel; and*

9 (3) *the sources of funds for such travel.*

10 (e) *TRADE ASSOCIATIONS.—No funds authorized by*
11 *this Act may be used either directly or indirectly to fund*
12 *a grant, contract, subcontract, or any other form of finan-*
13 *cial assistance awarded by the Department to a trade asso-*
14 *ciation on a noncompetitive basis. As part of the Depart-*
15 *ment's annual budget request submission to the Congress,*
16 *the Secretary shall submit a report to the Committee on*
17 *Science and the Committee on Appropriations of the House*
18 *of Representatives, and to the Committee on Energy and*
19 *Natural Resources and the Committee on Appropriations*
20 *of the Senate, that identifies—*

21 (1) *the estimated amount of funds provided by*
22 *the Department to trade associations, by trade asso-*
23 *ciation, for the fiscal year of such budget submission,*
24 *as well as for the 2 previous fiscal years;*

1 (2) *the services either provided or to be provided*
2 *by each such trade association; and*

3 (3) *the sources of funds for services provided by*
4 *each such trade association.*

5 (f) *REDUCTIONS.*—*Notwithstanding any other provi-*
6 *sion of this Act—*

7 (1) *each of the amounts authorized by this Act*
8 *for fiscal year 2000 shall be reduced by 1 percent;*

9 (2) *each of the amounts authorized by this Act*
10 *for fiscal year 2000, as reduced pursuant to para-*
11 *graph (1), shall be further reduced by .7674 percent,*
12 *with such reduction representing a reduction in travel*
13 *costs; and*

14 (3) *each of the amounts authorized by this Act*
15 *for fiscal year 2000 for administrative expenses, in-*
16 *cluding program management, shall be further re-*
17 *duced proportionately to achieve additional savings of*
18 *\$30,000,000.*

19 **SEC. 11. MANAGEMENT AND OPERATING CONTRACTS.**

20 (a) *COMPETITIVE PROCEDURE REQUIREMENT.*—*None*
21 *of the funds authorized to be appropriated by this Act for*
22 *civilian energy or scientific research, development, and*
23 *demonstration or related commercial application of energy*
24 *technology programs, projects, and activities may be used*
25 *to award a management and operating contract for a feder-*

1 *ally owned or operated civilian energy laboratory of the De-*
2 *partment unless such contract is awarded using competitive*
3 *procedures or the Secretary grants, on a case-by-case basis,*
4 *a waiver to allow for such a deviation. The Secretary may*
5 *not delegate the authority to grant such a waiver.*

6 (b) *CONGRESSIONAL NOTICE.*—*At least 60 days before*
7 *a contract award, amendment, or modification for which*
8 *the Secretary intends to grant such a waiver, the Secretary*
9 *shall submit to the Committee on Science and the Com-*
10 *mittee on Appropriations of the House of Representatives,*
11 *and to the Committee on Energy and Natural Resources*
12 *and the Committee on Appropriations of the Senate, a re-*
13 *port notifying the committees of the waiver and setting*
14 *forth the reasons for the waiver.*

15 **SEC. 12. FEDERAL ACQUISITION REGULATION.**

16 (a) *REQUIREMENT.*—*None of the funds authorized to*
17 *be appropriated by this Act for civilian energy or scientific*
18 *research, development, and demonstration or related com-*
19 *mercial application of energy technology programs,*
20 *projects, and activities may be used to award, amend, or*
21 *modify a contract of the Department in a manner that devi-*
22 *ates from the Federal Acquisition Regulation, unless the*
23 *Secretary grants, on a case-by-case basis, a waiver to allow*
24 *for such a deviation. The Secretary may not delegate the*
25 *authority to grant such a waiver.*

1 *to a person outside the Federal Government, unless the Sec-*
2 *retary determines that comparable articles or services are*
3 *not available from a commercial source in the United*
4 *States.*

5 **SEC. 15. ELIGIBILITY FOR AWARDS.**

6 (a) *IN GENERAL.*—*The Secretary shall exclude from*
7 *consideration for grant agreements for civilian energy and*
8 *scientific research, development, and demonstration or re-*
9 *lated commercial application of energy technology pro-*
10 *grams, projects, and activities made by the Department*
11 *after fiscal year 1999 any person who received funds, other*
12 *than those described in subsection (b), appropriated for a*
13 *fiscal year after fiscal year 1999, under a grant agreement*
14 *from any Federal funding source for a program, project,*
15 *or activity that was not subjected to a competitive, merit-*
16 *based award process, except as specifically authorized by*
17 *this Act. Any exclusion from consideration pursuant to this*
18 *section shall be effective for a period of 5 years after the*
19 *person receives such Federal funds.*

20 (b) *EXCEPTION.*—*Subsection (a) shall not apply to the*
21 *receipt of Federal funds by a person due to the membership*
22 *of that person in a class specified by law for which assist-*
23 *ance is awarded to members of the class according to a for-*
24 *mula provided by law or under circumstances permitting*

1 *other than full and open competition under the Federal Ac-*
2 *quisition Regulation.*

3 (c) *DEFINITION.*—*For purposes of this section, the*
4 *term “grant agreement” means a legal instrument whose*
5 *principal purpose is to transfer a thing of value to the re-*
6 *ipient to carry out a public purpose of support or stimula-*
7 *tion authorized by a law of the United States, and does*
8 *not include the acquisition (by purchase, lease, or barter)*
9 *of property or services for the direct benefit or use of the*
10 *United States Government. Such term does not include a*
11 *cooperative agreement (as such term is used in section 6305*
12 *of title 31, United States Code) or a cooperative research*
13 *and development agreement (as such term is defined in sec-*
14 *tion 12(d)(1) of the Stevenson-Wydler Technology Innova-*
15 *tion Act of 1980 (15 U.S.C. 3710a(d)(1))).*

16 **SEC. 16. INTERNET AVAILABILITY OF INFORMATION.**

17 *The Secretary shall make available through the Inter-*
18 *net home page of the Department the abstracts relating to*
19 *all research grants and awards made with funds authorized*
20 *by this Act. Nothing in this section shall be construed to*
21 *require or permit the release of any information prohibited*
22 *by law or regulation from being released to the public.*

23 **SEC. 17. FOREIGN VISITORS PROGRAM.**

24 (a) *PROHIBITION.*—*Except as provided in subsection*
25 *(b) or (c), the Secretary may not admit to any classified*

1 *area of any federally owned or operated nonmilitary energy*
2 *laboratory any individual who is a citizen of a nation that*
3 *is named on the Department of Energy List of Sensitive*
4 *Countries.*

5 **(b) WAIVER AUTHORITY.**—(1) *The Secretary may*
6 *waive the prohibition in subsection (a) on a case-by-case*
7 *basis with respect to individuals whose admission to a fed-*
8 *erally owned or operated nonmilitary energy laboratory is*
9 *determined by the Secretary to be necessary for the further-*
10 *ance of civilian science interests of the United States.*

11 (2) *Not later than 30 days after granting a waiver*
12 *under paragraph (1), the Secretary shall transmit to the*
13 *Committee on Science of the House of Representatives and*
14 *the Committee on Energy and Natural Resources of the Sen-*
15 *ate a report in writing providing notice of the waiver. The*
16 *report shall identify each individual for whom a waiver is*
17 *granted and, with respect to each such individual, provide*
18 *a detailed justification for the waiver and the Secretary's*
19 *certification that the admission of that individual to a fed-*
20 *erally owned or operated nonmilitary energy laboratory is*
21 *necessary for the furtherance of civilian science interests of*
22 *the United States.*

23 (3) *The authority of the Secretary under paragraph*
24 *(1) may not be delegated.*

1 (c) *APPLICATION.*—*This section shall not apply to the*
2 *Ames Laboratory, the Environmental Measurement Labora-*
3 *tory, the Ernest Orlando Lawrence Berkeley National Lab-*
4 *oratory, the Federal Energy Technology Center, the Fermi*
5 *National Accelerator Laboratory, the National Renewable*
6 *Energy Laboratory, the Princeton Plasma Physics Labora-*
7 *tory, the Radiological and Environmental Sciences Labora-*
8 *tory, the Stanford Linear Accelerator Center, or the Thomas*
9 *Jefferson National Accelerator Facility.*