

109TH CONGRESS
2D SESSION

H. R. 4906

To improve science, technology, engineering, and mathematics education, and
for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 8, 2006

Mr. FORD introduced the following bill; which was referred to the Committee on Science, and in addition to the Committees on Education and the Workforce and Judiciary, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To improve science, technology, engineering, and
mathematics education, 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 “21st Century Innova-
5 tion Act of 2006”.

6 **SEC. 2. TEACHER RECRUITING.**

7 (a) PURPOSE.—It is the purpose of this section to
8 encourage individuals educated in science, technology, en-
9 gineering, and mathematics to enter and continue in the

1 teaching profession, with the goal of attracting 10,000 of
2 America's brightest students to the teaching profession
3 over the next 5 years.

4 (b) SCHOLARSHIPS.—Title II of the Higher Edu-
5 cation Act of 1965 (20 U.S.C. 1021 et seq.) is amended
6 by adding at the end the following new part:

7 **“PART C—STEM TEACHER SCHOLARSHIPS**

8 **“SEC. 231. PROGRAM ESTABLISHED.**

9 “The Secretary shall award scholarships, on a com-
10 petitive basis and in accordance with this part, to students
11 who are enrolled in studies leading to bachelor's degrees,
12 with concurrent certification as kindergarten, elementary,
13 and secondary school teachers, in science, technology, en-
14 gineering, and mathematics, and who have agreed to per-
15 form qualified service.

16 **“SEC. 232. SELECTION OF RECIPIENTS.**

17 “(a) SELECTION CRITERIA.—The Secretary shall de-
18 velop selection criteria that the Secretary will use to award
19 scholarships, and to renew those awards, based on estab-
20 lished measurements of merit available to secondary stu-
21 dents who wish to pursue degrees in science, technology,
22 engineering, and mathematics.

23 “(b) APPLICATIONS.—Any student desiring to receive
24 a scholarship under this part shall submit an application

1 to the Secretary at such time, in such manner, and con-
2 taining such information as the Secretary may require.

3 “(c) DURATION OF SCHOLARSHIPS; RENEWAL.—
4 Scholarships shall be awarded for only one academic year
5 of study at a time, and shall be renewable on an annual
6 basis for the established length of the recipient’s academic
7 program, not to exceed 6 academic years. The Secretary
8 shall condition the renewal of scholarships on measures
9 of academic progress and achievement.

10 **“SEC. 233. QUALIFIED SERVICE REQUIREMENT.**

11 “(a) QUALIFIED SERVICE AGREEMENT.—Any stu-
12 dent who receives a scholarship under this part shall enter
13 into an agreement with the Secretary to complete no less
14 than 5 academic years of qualified service during a 7-year
15 period, to begin no later than 12 months following the
16 completion of a bachelor’s degree in science, technology,
17 engineering, or mathematics.

18 “(b) REQUIREMENT ENFORCED.—The Secretary
19 shall establish such requirements as the Secretary finds
20 necessary to ensure that recipients of scholarships under
21 this subsection who complete bachelor’s degrees in science,
22 technology, engineering, and mathematics, with teacher
23 certification, subsequently perform 5 academic years of
24 qualified service during a 7-year period, or repay the por-
25 tion of the scholarship received for which the recipient did

1 not perform the required qualified service, as determined
 2 by the Secretary. The Secretary shall use any such repay-
 3 ments to carry out additional activities under this part.

4 “(c) DEFINITION.—For the purpose of this section,
 5 the term ‘qualified service’ means full-time employment at
 6 a public or private kindergarten, elementary school, or sec-
 7 ondary school as a teacher of a course in a science, tech-
 8 nology, engineering, or mathematics field.

9 **“SEC. 234. AWARDS.**

10 “(a) SCHOLARSHIP AWARD.—The Secretary shall
 11 provide each recipient with a scholarship in the amount
 12 of up to \$20,000 to pay for the cost of attendance of the
 13 student for each academic year the student is eligible to
 14 receive the scholarship. The Secretary shall transfer such
 15 funds to the institution of higher education at which the
 16 recipient is enrolled.

17 “(b) BONUS AWARD.—

18 “(1) OPTION FOR BONUS AWARD.—Any student
 19 who receives a scholarship under this part may elect
 20 to enter into a bonus agreement with the Secretary,
 21 in accordance with this subsection, for any academic
 22 year during which the student receives a scholarship
 23 under this part.

24 “(2) BONUS AGREEMENT.—A bonus agreement
 25 under paragraph (1) shall provide that—

1 “(A) the student shall perform one aca-
2 demic year of the qualified service agreed to
3 under section 233(a) in a high-need local edu-
4 cational agency, as defined in section 201(b);
5 and

6 “(B) the Secretary shall provide \$10,000,
7 in addition to the amount the student receives
8 under subsection (a), for each academic year in
9 which the student enters into such bonus agree-
10 ment.

11 “(3) SERVICE REQUIREMENT ENFORCED.—The
12 Secretary shall establish such requirements as the
13 Secretary finds necessary to ensure that recipients
14 of bonuses under this subsection fulfill the qualified
15 service requirement in a high-need local educational
16 agency, as defined in section 201(b), for a period of
17 time equivalent to the period for which the recipient
18 receives the bonus, or repays the portion of the
19 bonus received for which the recipient did not per-
20 form the required qualified service in a high-need
21 local educational agency, as determined by the Sec-
22 retary. The Secretary shall use any such repayments
23 to carry out additional activities under this sub-
24 section.

1 “(c) MAXIMUM AWARD.—The maximum award any
 2 student may receive under this section for an academic
 3 year shall be the student’s cost of attendance minus any
 4 grant aid such student receives from sources other than
 5 this section.

6 **“SEC. 235. REGULATIONS.**

7 “The Secretary is authorized to issue such regula-
 8 tions as may be necessary to carry out the provisions of
 9 this part.”.

10 (c) INSTITUTIONAL GRANTS FOR INTEGRATED DE-
 11 GREE PROGRAMS.—Title II of the Higher Education Act
 12 of 1965 (20 U.S.C. 1021 et seq.) is further amended by
 13 adding after Part C, as added by subsection (b) of this
 14 section, the following new part:

15 **“PART D—INTEGRATED DEGREE PROGRAMS**

16 **“SEC. 241. PROGRAM AUTHORIZED.**

17 “(a) IN GENERAL.—The Secretary is authorized to
 18 award grants to institutions of higher education, on a
 19 competitive basis, in order to pay for the Federal share
 20 of the cost of projects to establish, strengthen, and operate
 21 4-year undergraduate degree programs through which stu-
 22 dents may concurrently—

23 “(1) earn a bachelor’s degree in science, tech-
 24 nology, engineering, or mathematics; and

1 “(2) be certified to teach kindergarten, elemen-
2 tary, or secondary school.

3 “(b) GRANT AMOUNT; AWARD PERIOD.—The Sec-
4 retary may award grants to no more than 50 institutions
5 of higher education each fiscal year, and a grant to an
6 institution for a fiscal year shall not exceed \$1,000,000.
7 Grants shall be awarded for only one fiscal year at a time,
8 and shall be renewable on an annual basis for up to 5
9 years.

10 **“SEC. 242. SELECTION OF GRANT RECIPIENTS.**

11 “(a) CRITERIA.—The Secretary shall set criteria to
12 evaluate the applications for grants under this part and
13 the projects proposed to establish, strengthen, and operate
14 4-year integrated undergraduate degree programs.

15 “(b) EQUITABLE DISTRIBUTION OF GRANTS.—To
16 the extent practicable and consistent with the criteria
17 under subsection (a), the Secretary shall make grants
18 under this part in such manner as to achieve an equitable
19 distribution of the grant funds throughout the United
20 States, considering geographic distribution, rural and
21 urban areas, and range and type of institutions.

22 **“SEC. 243. APPLICATION REQUIREMENTS.**

23 “‘In order to receive a grant under this part, an insti-
24 tution of higher education shall submit an application to
25 the Secretary at such time, in such manner, and con-

1 taining such information as the Secretary may require.

2 Such application shall include the following:

3 “(1) A description of the proposed project.

4 “(2) A demonstration of—

5 “(A) the commitment, including the finan-
6 cial commitment, of the institution for the pro-
7 posed project; and

8 “(B) the active support of the leadership of
9 the institution for the proposed project.

10 “(3) A description of how the proposed project
11 will be continued after Federal funds are no longer
12 awarded under this part for the project.

13 “(4) A plan for the evaluation of the project,
14 which shall include benchmarks to monitor progress
15 toward specific project objectives.

16 **“SEC. 244. MATCHING REQUIREMENT.**

17 “Each institution of higher education receiving a
18 grant under this part shall provide, from non-Federal
19 sources, an amount equal to the amount of the grant (in
20 cash or in kind) to carry out the project supported by the
21 grant.

22 **“SEC. 245. AUTHORIZATION OF APPROPRIATIONS.**

23 “The are authorized to be appropriated to carry out
24 this part \$50,000,000 for each of the fiscal years 2007
25 through 2012.”.

1 **SEC. 3. TEACHER TRAINING.**

2 (a) SUMMER INSTITUTES.—

3 (1) GRANTS.—The Secretary of Education may
4 make grants to State educational agencies and local
5 educational agencies to develop and operate summer
6 institutes described in paragraph (2) to enable
7 science, technology, engineering, and mathematic
8 teachers in elementary schools and secondary schools
9 to upgrade their skills.

10 (2) REQUIREMENTS.—A summer institute fund-
11 ed under this section—

12 (A) shall be up to 4 weeks in duration; and

13 (B) shall be designed to enable science,
14 technology, engineering, and mathematics
15 teachers in elementary schools and secondary
16 schools to upgrade their skills, including by
17 keeping informed of recent developments in
18 their respective fields and by exchanging best
19 practices.

20 (b) ADVANCED TECHNICAL DEGREES.—

21 (1) GRANTS AUTHORIZED.—The Secretary is
22 authorized to make grants, on a competitive basis,
23 to institutions of higher education that offer part-
24 time master's degree programs with rigorous science,
25 technology, engineering, and mathematics content to
26 individuals employed full-time as middle school and

1 secondary school science, technology, engineering,
2 and mathematics teachers.

3 (2) USES OF FUNDS.—Each recipient of a
4 grant under this subsection shall use—

5 (A) 50 percent of the grant funds to award
6 scholarships to individuals employed full-time as
7 middle school and secondary school science,
8 technology, engineering, and mathematics
9 teachers who are enrolled in a part-time mas-
10 ter's degree program with rigorous science,
11 technology, engineering, or mathematics con-
12 tent, to pay the cost of attendance related to
13 such program; and

14 (B) 50 percent of the grant funds to estab-
15 lish, strengthen, and operate part-time master's
16 degree programs with rigorous science, tech-
17 nology, engineering, and mathematics content.

18 (3) DURATION; RENEWAL.—Grants under this
19 subsection shall be awarded for a period of 5 years,
20 and shall be renewable for one 5-year period.

21 (4) MATCHING REQUIREMENT.—Each institu-
22 tion of higher education receiving a grant under this
23 subsection shall provide, from non-Federal sources,
24 an amount equal to the amount of the grant (in cash

1 or in kind) to carry out the activities supported by
2 the grant.

3 (5) PRIORITY.—In making grants under this
4 subsection, the Secretary shall give priority to insti-
5 tutions of higher education that—

6 (A) include in the application for the grant
7 a description of how the activities supported by
8 the grant will be continued after Federal funds
9 are no longer awarded under this subsection; or

10 (B) demonstrate prior experience in, or ex-
11 ceptional programs for, operating part-time
12 master's degree programs with rigorous science,
13 technology, engineering, and mathematics con-
14 tent that target full-time middle school and sec-
15 ondary school science, technology, engineering,
16 and mathematics teachers as students.

17 (c) ADVANCED COURSES.—The Secretary may make
18 grants to State educational agencies and local educational
19 agencies to provide training to elementary school and sec-
20 ondary school teachers on the provision of advanced
21 courses, including advanced placement courses, in science,
22 technology, engineering, and mathematics.

23 (d) APPLICATION.—To seek a grant under this sec-
24 tion, an entity shall submit an application to the Secretary

1 at such time, in such manner, and containing such infor-
2 mation as the Secretary may require.

3 (e) DEFINITIONS.—In this section:

4 (1) The term “elementary school” has the
5 meaning given to that term in section 9101 of the
6 Elementary and Secondary Education Act of 1965
7 (20 U.S.C. 7801).

8 (2) The term “institution of higher education”
9 has the meaning given to that term in section 101
10 of the Higher Education Act of 1965 (20 U.S.C.
11 1001).

12 (3) The term “local educational agency” has
13 the meaning given to that term in section 9101 of
14 the Elementary and Secondary Education Act of
15 1965 (20 U.S.C. 7801).

16 (4) The term “secondary school” has the mean-
17 ing given to that term in section 9101 of the Ele-
18 mentary and Secondary Education Act of 1965 (20
19 U.S.C. 7801).

20 (5) The term “Secretary” means the Secretary
21 of Education.

22 (6) The term “State educational agency” has
23 the meaning given to that term in section 9101 of
24 the Elementary and Secondary Education Act of
25 1965 (20 U.S.C. 7801).

1 (f) AUTHORIZATION OF APPROPRIATIONS.—To carry
2 out this section, there are authorized to be appropriated
3 \$20,000,000 for each of fiscal years 2007 through 2011.

4 **SEC. 4. EARLY CAREER SCIENTISTS AND ENGINEER**
5 **AWARDS.**

6 In addition to amounts otherwise available for sup-
7 port of the Presidential Early Career Award for Scientists
8 and Engineers program, the following amounts are au-
9 thorized to be appropriated for the designated agencies:

10 (1) For the National Science Foundation,
11 \$8,200,000 for fiscal year 2007, \$16,400,000 for
12 fiscal year 2008, \$24,600,000 for fiscal year 2009,
13 \$32,800,000 for fiscal year 2010, and \$41,000,000
14 for fiscal year 2011.

15 (2) For the National Institutes of Health,
16 \$4,800,000 for fiscal year 2007, \$9,600,000 for fis-
17 cal year 2008, \$14,400,000 for fiscal year 2009,
18 \$19,200,000 for fiscal year 2010, and \$24,000,000
19 for fiscal year 2011.

20 (3) For the Department of Energy, \$3,600,000
21 for fiscal year 2007, \$7,200,000 for fiscal year
22 2008, \$10,800,000 for fiscal year 2009,
23 \$14,400,000 for fiscal year 2010, and \$18,000,000
24 for fiscal year 2011.

1 (4) For the Department of Defense, \$2,400,000
2 for fiscal year 2007, \$4,800,000 for fiscal year
3 2008, \$7,200,000 for fiscal year 2009, \$9,600,000
4 for fiscal year 2010, and \$12,000,000 for fiscal year
5 2011.

6 (5) For the National Aeronautics and Space
7 Administration, \$1,000,000 for fiscal year 2007,
8 \$2,000,000 for fiscal year 2008, \$3,000,000 for fis-
9 cal year 2009, \$4,000,000 for fiscal year 2010, and
10 \$5,000,000 for fiscal year 2011.

11 **SEC. 5. UNDERGRADUATE SCHOLAR AWARDS IN SCIENCE,**
12 **TECHNOLOGY, ENGINEERING, OR MATHE-**
13 **MATICS.**

14 (a) IN GENERAL.—The National Science Foundation
15 shall institute a program, to be known as the Under-
16 graduate Scholar Awards in Science, Technology, Engi-
17 neering, or Mathematics program, or the USA–STEM
18 program, to award undergraduate scholarships in science,
19 technology, engineering, or mathematics to individuals fol-
20 lowing criteria and procedures to be established by the
21 Secretary of Education in consultation with the Director
22 of the National Science Foundation, except as provided
23 in subsection (b).

24 (b) SPECIAL REQUIREMENTS.—

1 (1) SCHOLARSHIP AMOUNT.—Scholarships
2 awarded under the USA–STEM program shall pro-
3 vide up to \$20,000 a year (as determined by the
4 Secretary of Education) for four years for qualified
5 educational expenses, including tuition and fees.

6 (2) ADVISORY BOARD.—(A) The Director of the
7 National Science Foundation shall establish a board
8 of advisors for the program. The board shall identify
9 areas of national need for which shortages of
10 science, technology, engineering, or mathematics per-
11 sonnel with undergraduate academic degrees are an-
12 ticipated.

13 (B) The members of the advisory board estab-
14 lished under subparagraph (A) shall be selected from
15 among the principal Federal agencies that support
16 research and development activities in science, tech-
17 nology, engineering, and mathematics.

18 (3) SELECTION CRITERIA.—Selection criteria
19 for scholarship awards established under subsection
20 (a) shall include whether an applicant proposes to
21 pursue an advanced degree in an area of national
22 need, identified by the advisory board under para-
23 graph (2)(A).

24 (c) AUTHORIZATION OF APPROPRIATIONS.—There
25 are authorized to be appropriated to the National Science

1 Foundation for the purposes of this section, \$150,000,000
2 for fiscal year 2007, \$300,000,000 for fiscal year 2008,
3 and \$450,000,000 for each of fiscal years 2009 through
4 2011.

5 **SEC. 6. GRADUATE SCHOLAR AWARDS IN SCIENCE, TECH-**
6 **NOLOGY, ENGINEERING, OR MATHEMATICS.**

7 (a) IN GENERAL.—The National Science Foundation
8 shall institute a program, to be known as the Graduate
9 Scholar Awards in Science, Technology, Engineering, or
10 Mathematics program, or the GSA–STEM program, to
11 award graduate fellowships in science, technology, engi-
12 neering, or mathematics to individuals following the cri-
13 teria and procedures of the Foundation’s Graduate Re-
14 search Fellowship program, except as provided in sub-
15 section (b).

16 (b) SPECIAL REQUIREMENTS.—

17 (1) FELLOWSHIP AMOUNT.—Fellowships
18 awarded under the GSA–STEM program shall pro-
19 vide an annual stipend of \$30,000 to the recipient
20 and \$15,000, in lieu of tuition, to the institution of
21 higher education at which the recipient is enrolled.

22 (2) ADVISORY BOARD.—(A) The Director of the
23 National Science Foundation shall establish a board
24 of advisors for the program. The board shall identify
25 areas of national need for which shortages of

1 science, technology, engineering, or mathematics per-
2 sonnel with advanced academic degrees are antici-
3 pated.

4 (B) The members of the advisory board estab-
5 lished under subparagraph (A) shall be selected from
6 among the principal Federal agencies that support
7 research and development activities in science, tech-
8 nology, engineering, and mathematics.

9 (3) SELECTION CRITERIA.—Selection criteria
10 for fellowship awards used in the Foundation’s
11 Graduate Research Fellowship program shall be ap-
12 plied to the GSA–STEM program. An additional cri-
13 terion for awards under the GSA–STEM program
14 shall be whether an applicant proposes to pursue an
15 advanced degree in an area of national need, identi-
16 fied by the advisory board under paragraph (2)(A).

17 (c) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to the National Science
19 Foundation for the purposes of this section, \$225,000,000
20 for fiscal year 2007, \$450,000,000 for fiscal year 2008,
21 and \$675,000,000 for each of fiscal years 2009 through
22 2011.

23 **SEC. 7. PRESIDENTIAL INNOVATION AWARD.**

24 (a) ESTABLISHMENT.—There is hereby established a
25 Presidential Innovation Award, signified by a medal which

1 shall be of such design and materials and bear such in-
2 scriptions as the President, on the basis of recommenda-
3 tions submitted by the Director of the Office of Science
4 and Technology Policy, may prescribe.

5 (b) AWARD.—The President shall periodically award
6 the medal, on the basis of recommendations received from
7 the Director of the Office of Science and Technology Pol-
8 icy or on the basis of such other information as the Presi-
9 dent considers appropriate, to individuals who develop one
10 or more unique scientific or engineering ideas in the na-
11 tional interest at the time the innovation occurs.

12 (c) PURPOSE.—The awards under this section shall
13 be made to—

14 (1) stimulate scientific and engineering ad-
15 vances in the national interest;

16 (2) illustrate the linkage between science and
17 engineering and national needs; and

18 (3) provide an example to students of the con-
19 tribution they could make to society by entering the
20 science and engineering profession.

21 (d) CITIZENSHIP.—An individual may not be award-
22 ed a medal under this section unless at the time such
23 award is made the individual—

24 (1) is a citizen or other national of the United
25 States; or

1 (2) is an alien lawfully admitted to the United
2 States for permanent residence who—

3 (A) has filed an application for petition for
4 naturalization in the manner prescribed by sec-
5 tion 334 of the Immigration and Nationality
6 Act (8 U.S.C. 1445); and

7 (B) is not permanently ineligible to become
8 a citizen of the United States.

9 (e) PRESENTATION.—The presentation of the award
10 shall be made by the President with such ceremonies as
11 he may deem proper, including attendance by appropriate
12 Members of Congress.

13 **SEC. 8. NATIONAL COORDINATION OFFICE FOR RESEARCH**
14 **INFRASTRUCTURE.**

15 (a) IN GENERAL.—The Office of Science and Tech-
16 nology Policy shall establish a National Coordination Of-
17 fice for Research Infrastructure, which shall identify and
18 prioritize deficiencies in research facilities and instrumen-
19 tation in academic institutions and in national laboratories
20 and shall make recommendations for the allocation of re-
21 sources provided under subsection (e).

22 (b) STAFFING.—The Director of the Office of Science
23 and Technology Policy shall appoint individuals to serve
24 in the office established under subsection (a) from among
25 the principal Federal agencies that support research in the

1 sciences, mathematics, and engineering, and shall at a
2 minimum include individuals from the National Science
3 Foundation and the Department of Energy.

4 (c) USE OF FUNDS.—The amounts authorized by
5 subsection (e) shall be available on a competitive, merit-
6 reviewed basis for construction and maintenance of re-
7 search facilities at institutions of higher education or na-
8 tional laboratories, including instrumentation, computing
9 and networking equipment, and other physical resources
10 necessary for performing leading-edge research.

11 (d) REPORT.—The Director of the Office of Science
12 and Technology Policy shall provide annually a report to
13 Congress at the time of the President’s budget proposal
14 describing the research infrastructure needs identified in
15 accordance with subsection (a) and a list of infrastructure
16 projects proposed for funding using the resources author-
17 ized by subsection (e).

18 (e) AUTHORIZATION OF APPROPRIATIONS.—

19 (1) NATIONAL SCIENCE FOUNDATION.—There
20 are authorized to be appropriated to the National
21 Science Foundation for the purposes of this section,
22 \$333,000,000 for each of fiscal years 2007 through
23 2011.

24 (2) DEPARTMENT OF ENERGY.—There are au-
25 thorized to be appropriated to the Department of

1 Energy for the purposes of this section,
2 \$167,000,000 for each of fiscal years 2007 through
3 2011.

4 **SEC. 9. EXTENSION OF AUTHORIZED STAY IN THE UNITED**
5 **STATES FOR FOREIGN STUDENTS AND EX-**
6 **CHANGE VISITOR PROGRAM PARTICIPANTS**
7 **STUDYING SCIENCE, TECHNOLOGY, ENGI-**
8 **NEERING, OR MATHEMATICS TO SEEK EM-**
9 **PLOYMENT.**

10 Section 214 of the Immigration and Nationality Act
11 (8 U.S.C. 1184) is amended by adding at the end the fol-
12 lowing new subsection:

13 “(r)(1) In the case of an alien described in paragraph
14 (2), upon application by the alien and the satisfactory
15 completion of such security screening as the Secretary of
16 Homeland Security may specify, the Secretary may extend
17 the alien’s period of authorized admission as a principal
18 nonimmigrant described in such paragraph for 12 months
19 for the purpose of permitting the alien to secure employ-
20 ment in the United States in the alien’s field described
21 in such paragraph.

22 “(2) An alien referred to in paragraph (1) is a prin-
23 cipal nonimmigrant described in subparagraph (F) or (J)
24 of section 101(a)(15) who obtains a doctorate degree or
25 its equivalent in the United States in science, technology,

1 engineering, mathematics, or other similar field deter-
2 mined by the Secretary of Homeland Security, in consulta-
3 tion with the Secretary of State, to be important to the
4 national interest of the United States during the period
5 of stay as such a nonimmigrant.

6 “(3) An alien granted an extended period of author-
7 ized admission under paragraph (1) shall be granted au-
8 thorization to engage in employment in the United States
9 in any field described in paragraph 2 and be provided an
10 ‘employment authorized’ endorsement or other appro-
11 priate work permit for such employment during such pe-
12 riod of extended admission.

13 “(4) If, during an alien’s period of extended admis-
14 sion described in paragraph (1)—

15 “(A) the alien obtains employment referred to
16 in such paragraph, and

17 “(B) an application is filed on behalf of such
18 alien for a change of classification under section 248
19 to that of a nonimmigrant described in subpara-
20 graph (H) of section 101(a)(15) on the basis of such
21 employment,

22 then the period of extended admission under paragraph
23 (1) and the employment authorization described in para-
24 graph (3) shall be further extended during the pendency
25 of such application.

1 “(5) The spouse and minor children of an alien grant-
2 ed a period of extended admission under paragraph (1),
3 and if applicable, under paragraph (4), if accompanying
4 or following to join such alien, are eligible to be provided
5 nonimmigrant status in the same classification during
6 such period of authorized stay as the spouse or children
7 would have with respect to the alien immediately before
8 the alien was granted such a period of extended admis-
9 sion.”.

10 **SEC. 10. ADVANCED RESEARCH PROJECTS AGENCY-EN-**
11 **ERGY.**

12 (a) AGENCY.—

13 (1) ESTABLISHMENT.—There is established the
14 Advanced Research Projects Agency-Energy (in this
15 section referred to as “ARPA-E”) within the De-
16 partment of Energy.

17 (2) GOAL.—The goal of ARPA-E is to reduce
18 the amount of energy the United States imports
19 from foreign sources by 50 percent over the next 10
20 years by—

21 (A) promoting revolutionary changes in the
22 critical technologies that would promote energy
23 independence;

1 (B) turning cutting-edge science and engi-
2 neering into technologies for energy and envi-
3 ronmental application; and

4 (C) accelerating innovation in energy and
5 the environment for both traditional and alter-
6 native energy sources and in energy efficiency
7 mechanisms to decrease the Nation's reliance
8 on foreign energy sources.

9 (3) DIRECTOR.—ARPA-E shall be headed by a
10 Director who shall be appointed by the Secretary of
11 Energy. The Director shall report to the Secretary.

12 (4) RESPONSIBILITIES.—The Director of
13 ARPA-E shall administer the Fund established
14 under subsection (b) to award competitive grants,
15 cooperative agreements, or contracts to institutions
16 of higher education, companies, or consortia of such
17 entities which may include federally funded research
18 and development centers, to achieve the goals stated
19 in paragraph (2) through targeted acceleration of—

20 (A) energy-related research;

21 (B) development of resultant techniques,
22 processes, and technologies, and related testing
23 and evaluation; and

1 (C) demonstration and commercial applica-
2 tion of the most promising technologies and re-
3 search applications.

4 (5) PERSONNEL.—

5 (A) PROGRAM MANAGERS.—The Director
6 of ARPA–E shall designate employees to serve
7 as program managers for each of the programs
8 established pursuant to the responsibilities es-
9 tablished for ARPA–E under paragraph (4).
10 Program managers shall be responsible for—

11 (i) establishing research and develop-
12 ment goals for the program, including
13 through the convening of workshops and
14 conferring with outside experts, as well as
15 publicizing its goals to the public and pri-
16 vate sectors;

17 (ii) soliciting applications for specific
18 areas of particular promise, especially
19 those which the private sector cannot or
20 will not provide funding;

21 (iii) selecting research projects for
22 support under the program from among
23 application submitted to ARPA–E, fol-
24 lowing consideration of—

1 (I) the novelty and scientific and
2 technical merit of the proposed
3 projects;

4 (II) the demonstrated capabilities
5 of the applicants to successfully carry
6 out the proposed research project; and

7 (III) such other criteria as are
8 established by the Director; and

9 (iv) monitoring the progress of
10 projects supported under the program.

11 (B) HIRING AND MANAGEMENT.—In hiring
12 personnel for ARPA-E, the Secretary shall
13 have the hiring and management authorities de-
14 scribed in section 1101 of the Strom Thurmond
15 National Defense Authorization Act for Fiscal
16 Year 1999 (5 U.S.C. 3104 note). For purposes
17 of subsection (c)(1) of that section, the term of
18 appointments for employees may not exceed 5
19 years before the granting of any extension.

20 (6) COORDINATION.—The Director of ARPA-E
21 shall ensure that the activities of ARPA-E are co-
22 ordinated with those of other relevant research agen-
23 cies, and may carry out projects jointly with other
24 agencies.

25 (b) FUND.—

1 (1) ESTABLISHMENT.—There is established in
2 the Treasury the Energy Independence Acceleration
3 Fund (in this section referred to as the “Fund”),
4 which shall be administered by the Director of
5 ARPA-E for the purposes of carrying out this sec-
6 tion.

7 (2) AUTHORIZATION OF APPROPRIATIONS.—
8 There are authorized to be appropriated to the Di-
9 rector of ARPA-E for deposit in the Fund
10 \$300,000,000 for fiscal year 2007, \$375,000,000 for
11 fiscal year 2008, \$468,000,000 for fiscal year 2009,
12 \$585,000,000 for fiscal year 2010, \$732,000,000 for
13 fiscal year 2011, and \$915,000,000 for fiscal year
14 2012, to remain available until expended.

15 (c) RECOUPMENT.—

16 (1) REQUIREMENT.—Not later than 180 days
17 after the date of enactment of this Act, the Sec-
18 retary shall establish procedures and criteria for the
19 recoupment of the Federal share of each project sup-
20 ported under this section. Such recoupment shall
21 occur within a reasonable period of time following
22 the date of the completion of such project, but not
23 later than 20 years following such date, taking into
24 account the effect of recoupment on—

1 (A) the commercial competitiveness of the
2 entity carrying out the project;

3 (B) the profitability of the project; and

4 (C) the commercial viability of the tech-
5 nology utilized.

6 (2) WAIVER.—The Secretary may at any time
7 waive or defer all or some portion of the recoupment
8 requirement as necessary for the commercial viabil-
9 ity of the project.

10 (3) AVAILABILITY OF FUNDS.—Revenue re-
11 ceived by the Federal Government pursuant to this
12 subsection shall be deposited into the Fund and
13 shall be available with further appropriation to fund
14 future grants, contracts, and cooperative agreement
15 as authorized by the Director of ARPA–E.

16 (d) ADVICE.—

17 (1) ADVISORY COMMITTEES.—The Director of
18 ARPA–E may seek advice on any aspect of ARPA–
19 E from—

20 (A) existing Department of Energy advi-
21 sory committees; and

22 (B) new advisory committees organized to
23 support the programs of ARPA–E and to pro-
24 vide advice and assistance on—

25 (i) specific program tasks; or

1 (ii) overall direction of ARPA–E.

2 (2) APPLICABILITY.—Section 14 of the Federal
3 Advisory Committee Act shall not apply to advisory
4 committees organized under paragraph (1)(B).

5 (3) ADDITIONAL SOURCES OF ADVICE.—The
6 Director of ARPA–E may seek advice and review
7 from the National Academy of Sciences, the Na-
8 tional Academy for Engineering, and any other pro-
9 fessional or scientific organization with expertise in
10 specific processes or technologies under development
11 by ARPA–E.

12 (e) ARPA–E EVALUATION.—After ARPA–E has
13 been in operation for 54 months, the President’s Com-
14 mittee on Science and Technology shall begin an evalua-
15 tion (to be completed within 12 months) of how well
16 ARPA–E is achieving its goals and mission. The evalua-
17 tion shall include the recommendation of such Committee
18 on whether ARPA–E should be continued or terminated,
19 as well as lessons-learned from its operation. The evalua-
20 tion shall be made available to Congress and to the public
21 upon completion.

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