

(5) It is appropriate for Federal agencies and departments to use the funds authorized for the Program in a manner, consistent with the Trade Agreements Act of 1979 (19 U.S.C. 2501 et seq.), which most effectively fosters reciprocal competitive procurement treatment by foreign governments for United States high-performance computing and associated technology products and suppliers.

(b) Annual report

(1) Report

The Director shall submit an annual report to Congress that identifies—

(A) any grant, contract, cooperative agreement, or cooperative research and development agreement (as defined under section 3710a(d)(1) of this title) made or entered into by any Federal agency or department for research and development under the Program with—

- (i) any company other than a company that is either incorporated or located in the United States, and that has majority ownership by individuals who are citizens of the United States; or
- (ii) any educational institution or non-profit institution located outside the United States; and

(B) any procurement exceeding \$1,000,000 by any Federal agency or department under the Program for—

- (i) unmanufactured articles, materials, or supplies mined or produced outside the United States; or
- (ii) manufactured articles, materials, or supplies other than those manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured in the United States,

under the meaning of chapter 83 of title 41.

(2) Consolidation of reports

The report required by this subsection may be included with the report required by section 5511(a)(3)(A)¹ of this title.

(c) Application of Buy American Act

This chapter does not affect the applicability of chapter 83 of title 41 to procurements by Federal agencies and departments undertaken as a part of the Program.

(Pub. L. 102-194, title II, §208, Dec. 9, 1991, 105 Stat. 1603; Pub. L. 110-69, title III, §3002(c)(6), Aug. 9, 2007, 121 Stat. 587.)

REFERENCES IN TEXT

The Trade Agreements Act of 1979, referred to in subsec. (a)(5), is Pub. L. 96-39, July 26, 1979, 93 Stat. 144, as amended. For complete classification of this Act to the Code, see References in Text note set out under section 2501 of Title 19, Customs Duties, and Tables.

Section 5511(a)(3)(A) of this title, referred to in subsec. (b)(2), was redesignated section 5511(a)(2)(D) of this title by Pub. L. 110-69, title VII, §7024(a)(1)(B)(ii), (iii)(II), Aug. 9, 2007, 121 Stat. 687.

CODIFICATION

In subsec. (b)(1)(B), “chapter 83 of title 41” substituted for “title III of the Act of March 3, 1933 (41

U.S.C. 10a-10d; popularly known as the Buy American Act) as amended by the Buy American Act of 1988” on authority of Pub. L. 111-350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

In subsec. (c), “chapter 83 of title 41” substituted for “title III of the Act of March 3, 1933 (41 U.S.C. 10a-10d; popularly known as the Buy American Act), as amended by the Buy American Act of 1988,” on authority of Pub. L. 111-350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

AMENDMENTS

2007—Subsecs. (c), (d). Pub. L. 110-69 redesignated subsec. (d) as (c) and struck out former subsec. (c) which related to review of Supercomputer Agreement.

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective May 15, 2000, of provisions of law requiring submittal to Congress of any annual, semiannual, or other regular periodic report listed in House Document No. 103-7 (in which a report required under subsec. (b)(1) of this section is listed on page 185), see section 3003 of Pub. L. 104-66, as amended, set out as a note under section 1113 of Title 31, Money and Finance.

SUBCHAPTER III—DEPARTMENT OF ENERGY HIGH-END COMPUTING REVITALIZATION

§ 5541. Definitions

In this subchapter:

(1) Center

The term “Center” means a High-End Software Development Center established under section 5542(d) of this title.

(2) High-end computing system

The term “high-end computing system” means a computing system with performance that substantially exceeds that of systems that are commonly available for advanced scientific and engineering applications.

(3) Leadership System

The term “Leadership System” means a high-end computing system that is among the most advanced in the world in terms of performance in solving scientific and engineering problems.

(4) Institution of higher education

The term “institution of higher education” has the meaning given the term in section 1001(a) of title 20.

(5) Secretary

The term “Secretary” means the Secretary of Energy, acting through the Director of the Office of Science of the Department of Energy.

(Pub. L. 108-423, §2, Nov. 30, 2004, 118 Stat. 2400.)

REFERENCES IN TEXT

This subchapter, referred to in text, was in the original “this Act”, meaning Pub. L. 108-423, Nov. 30, 2004, 118 Stat. 2400, which is classified principally to this subchapter. For complete classification of this Act to the Code, see Short Title note set out under section 5501 of this title and Tables.

CODIFICATION

This section was enacted as part of the Department of Energy High-End Computing Revitalization Act of 2004 which comprises this subchapter, and not as part of

¹ See References in Text note below.

the High-Performance Computing Act of 1991 which comprises this chapter.

SHORT TITLE

This subchapter known as the “Department of Energy High-End Computing Revitalization Act of 2004”, see Short Title note set out under section 5501 of this title.

§ 5542. Department of Energy high-end computing research and development program

(a) In general

The Secretary shall—

(1) carry out a program of research and development (including development of software and hardware) to advance high-end computing systems; and

(2) develop and deploy high-end computing systems for advanced scientific and engineering applications.

(b) Program

The program shall—

(1) support both individual investigators and multidisciplinary teams of investigators;

(2) conduct research in multiple architectures, which may include vector, reconfigurable logic, streaming, processor-in-memory, and multithreading architectures;

(3) conduct research on software for high-end computing systems, including research on algorithms, programming environments, tools, languages, and operating systems for high-end computing systems, in collaboration with architecture development efforts;

(4) provide for sustained access by the research community in the United States to high-end computing systems and to Leadership Systems, including provision of technical support for users of such systems;

(5) support technology transfer to the private sector and others in accordance with applicable law; and

(6) ensure that the high-end computing activities of the Department of Energy are coordinated with relevant activities in industry and with other Federal agencies, including the National Science Foundation, the Defense Advanced Research Projects Agency, the National Nuclear Security Administration, the National Security Agency, the National Institutes of Health, the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, the National Institutes of Standards and Technology, and the Environmental Protection Agency.

(c) Leadership Systems facilities

(1) In general

As part of the program carried out under this subchapter, the Secretary shall establish and operate 1 or more Leadership Systems facilities to—

(A) conduct advanced scientific and engineering research and development using Leadership Systems; and

(B) develop potential advancements in high-end computing system hardware and software.

(2) Administration

In carrying out this subsection, the Secretary shall provide to Leadership Systems, on

a competitive, merit-reviewed basis, access to researchers in United States industry, institutions of higher education, national laboratories, and other Federal agencies.

(d) High-End Software Development Center

(1) In general

As part of the program carried out under this subchapter, the Secretary shall establish at least 1 High-End Software Development Center.

(2) Duties

A Center shall concentrate efforts to develop, test, maintain, and support optimal algorithms, programming environments, tools, languages, and operating systems for high-end computing systems.

(3) Proposals

In soliciting proposals for the Center, the Secretary shall encourage staffing arrangements that include both permanent staff and a rotating staff of researchers from other institutions and industry to assist in coordination of research efforts and promote technology transfer to the private sector.

(4) Use of expertise

The Secretary shall use the expertise of a Center to assess research and development in high-end computing system architecture.

(5) Selection

The selection of a Center shall be determined by a competitive proposal process administered by the Secretary.

(Pub. L. 108–423, § 3, Nov. 30, 2004, 118 Stat. 2400.)

REFERENCES IN TEXT

This subchapter, referred to in subsecs. (c)(1) and (d)(1), was in the original “this Act”, meaning Pub. L. 108–423, Nov. 30, 2004, 118 Stat. 2400, which is classified principally to this subchapter. For complete classification of this Act to the Code, see Short Title note set out under section 5501 of this title and Tables.

CODIFICATION

This section was enacted as part of the Department of Energy High-End Computing Revitalization Act of 2004 which comprises this subchapter, and not as part of the High-Performance Computing Act of 1991 which comprises this chapter.

§ 5543. Authorization of appropriations

In addition to amounts otherwise made available for high-end computing, there are authorized to be appropriated to the Secretary to carry out this subchapter—

(1) \$50,000,000 for fiscal year 2005;

(2) \$55,000,000 for fiscal year 2006; and

(3) \$60,000,000 for fiscal year 2007.

(Pub. L. 108–423, § 4, Nov. 30, 2004, 118 Stat. 2402.)

REFERENCES IN TEXT

This subchapter, referred to in text, was in the original “this Act”, meaning Pub. L. 108–423, Nov. 30, 2004, 118 Stat. 2400, which is classified principally to this subchapter. For complete classification of this Act to the Code, see Short Title note set out under section 5501 of this title and Tables.

CODIFICATION

This section was enacted as part of the Department of Energy High-End Computing Revitalization Act of