classification of this title to the Code, see Short Title of 2007 Amendment note set out under section 15801 of this title and Tables.

SHORT TITLE

For short title of title V of Pub. L. 110–69, which enacted this subchapter, as the ''Protecting America's Competitive Edge Through Energy Act'' or the ''PACE–Energy Act'', see section 5001 of Pub. L. 110–69, set out as a note under section 15801 of this title .

§ 16532. Nuclear science talent expansion program for institutions of higher education

(a) Purposes

The purposes of this section are—

(1) to address the decline in the number of and resources available to nuclear science programs at institutions of higher education; and

(2) to increase the number of graduates with degrees in nuclear science, an area of strategic importance to the economic competitiveness and energy security of the United States.

(b) Definition of nuclear science

In this section, the term ''nuclear science'' includes—

(1) nuclear science;
(2) nuclear engineering;
(3) nuclear chemistry;
(4) radio chemistry; and
(5) health physics.

(c) Establishment

The Secretary shall establish, in accordance with this section, a program to expand and enhance institution of higher education nuclear science educational capabilities.

(d) Nuclear science program expansion grants for institutions of higher education

(1) In general

The Secretary shall award up to 3 competitive grants for each fiscal year to institutions of higher education that establish new academic degree programs in nuclear science.

(2) Priority

In evaluating grants under this subsection, the Secretary shall give priority to proposals that involve partnerships with a National Laboratory or other eligible nuclear-related entity, as determined by the Secretary.

(3) Criteria

Criteria for a grant awarded under this subsection shall be based on—

(A) the potential to attract new students to the program;

(B) academic rigor; and

(C) the ability to offer hands-on learning opportunities.

(4) Duration and amount

(A) Duration

A grant under this subsection may be up to 5 years in duration.

(B) Amount

An institution of higher education that receives a grant under this subsection shall be eligible for up to $1,000,000 for each year of the grant period.

(5) Use of funds

An institution of higher education that receives a grant under this subsection may use the grant to—

(A) recruit and retain new faculty;

(B) develop core and specialized course content;

(C) encourage collaboration between faculty and researchers in the nuclear science field; and

(D) support outreach efforts to recruit students.

(e) Nuclear science competitiveness grants for institutions of higher education

(1) In general

The Secretary shall award up to 5 competitive grants for each fiscal year to institutions of higher education with existing academic degree programs that produce graduates in nuclear science.

(2) Criteria

Criteria for a grant awarded under this subsection shall be based on the potential for increasing the number and academic quality of graduates in the nuclear sciences who enter into careers in nuclear-related fields.

(3) Duration and amount

(A) Duration

A grant under this subsection may be up to 5 years in duration.

(B) Amount

An institution of higher education that receives a grant under this subsection shall be eligible for up to $500,000 for each year of the grant period.

(4) Use of funds

An institution of higher education that receives a grant under this subsection may use the grant to—

(A) increase the number of graduates in nuclear science that enter into careers in the nuclear science field;

(B) enhance the teaching of advanced nuclear technologies;

(C) aggressively pursue collaboration opportunities with industry and National Laboratories;

(D) bolster or sustain nuclear infrastructure and research facilities of the institution of higher education, such as research and training reactors or laboratories; and

(E) provide tuition assistance and stipends to undergraduate and graduate students.

(f) Authorization of appropriations

(1) Nuclear science program expansion grants for institutions of higher education

There are authorized to be appropriated to carry out subsection (d)—

(A) $3,500,000 for fiscal year 2008;
(B) $6,500,000 for fiscal year 2009;
(C) $9,500,000 for fiscal year 2010;
(D) $9,800,000 for fiscal year 2011;
(E) $10,100,000 for fiscal year 2012; and
(F) $10,400,000 for fiscal year 2013.

(2) Nuclear science competitiveness grants for institutions of higher education

There are authorized to be appropriated to carry out subsection (e)—

(A) $3,000,000 for fiscal year 2008;

(B) $5,500,000 for fiscal year 2009;
(C) $8,000,000 for fiscal year 2010;
(D) $8,240,000 for fiscal year 2011;
(E) $8,500,000 for fiscal year 2012; and
(F) $8,750,000 for fiscal year 2013.

(Pub. L. 110–69, title V, § 5004, Aug. 9, 2007, 121 Stat. 612; Pub. L. 111–358, title IX, § 902(a), Jan. 4, 2011, 124 Stat. 4044.)

AMENDMENTS

2011—Subsec. (f)(1)(D) to (F). Pub. L. 111–358, § 902(a)(1), added subpars. (D) to (F).
Subsec. (f)(2)(D) to (F). Pub. L. 111–358, § 902(a)(2), added subpars. (D) to (F).

§ 16533. Hydrocarbon systems science talent expansion program for institutions of higher education

(a) Purposes

The purposes of this section are—

(1) to address the decline in the number of and resources available to hydrocarbon systems science programs at institutions of higher education; and

(2) to increase the number of graduates with degrees in hydrocarbon systems science, an area of strategic importance to the economic competitiveness and energy security of the United States.

(b) Definition of hydrocarbon systems science

In this section:

(1) In general

The term ''hydrocarbon systems science'' means a science involving natural gas or other petroleum exploration, development, or production.

(2) Inclusions

The term ''hydrocarbon systems science'' includes—

(A) petroleum or reservoir engineering;
(B) environmental geoscience;
(C) petrophysics;
(D) geophysics;
(E) geochemistry;
(F) petroleum geology;
(G) ocean engineering;
(H) environmental engineering;
(I) computer science, as computer science relates to a science described in this subsection; and
(J) hydrocarbon spill response and remediation.

(c) Establishment

The Secretary shall establish, in accordance with this section, a program to expand and enhance institution of higher education hydrocarbon systems science educational capabilities.

(d) Hydrocarbon systems science program expansion grants for institutions of higher education

(1) In general

The Secretary shall award up to 3 competitive grants for each fiscal year to institutions of higher education that establish new academic degree programs in hydrocarbon systems science.

(2) Eligibility

In evaluating grants under this subsection, the Secretary shall give priority to proposals that involve partnerships with the National Laboratories, including the National Energy Technology Laboratory, or other hydrocarbon systems scientific entities, as determined by the Secretary.

(3) Criteria

Criteria for a grant awarded under this subsection shall be based on—

(A) the potential to attract new students to the program;
(B) academic rigor; and
(C) the ability to offer hands-on learning opportunities.

(4) Duration and amount

(A) Duration

A grant under this subsection may be up to 5 years in duration.

(B) Amount

An institution of higher education that receives a grant under this subsection shall be eligible for up to $1,000,000 for each year of the grant period.

(5) Use of funds

An institution of higher education that receives a grant under this subsection may use the grant to—

(A) recruit and retain new faculty;
(B) develop core and specialized course content;
(C) encourage collaboration between faculty and researchers in the hydrocarbon systems science field; and
(D) support outreach efforts to recruit students.

(e) Hydrocarbon systems science competitiveness grants for institutions of higher education

(1) In general

The Secretary shall award up to 5 competitive grants for each fiscal year to institutions of higher education with existing academic degree programs that produce graduates in hydrocarbon systems science.

(2) Criteria

Criteria for a grant awarded under this subsection shall be based on the potential for increasing the number and academic quality of graduates in hydrocarbon systems sciences who enter into careers in natural gas and other petroleum exploration, development, and production related fields.

(3) Duration and amount

(A) Duration

A grant under this subsection may be up to 5 years in duration.

(B) Amount

An institution of higher education that receives a grant under this subsection shall be eligible for up to $500,000 for each year of the grant period.

(4) Use of funds

An institution of higher education that receives a grant under this subsection may use the grant to—

(A) increase the number of graduates in the hydrocarbon systems sciences that enter