

ment, demonstration, and commercial application of renewable energy and energy efficiency technologies in order to ensure a stable and secure future energy supply by—

- (1) achieving as soon as practicable cost competitive use of those technologies without need of Federal financial incentives;
- (2) establishing long-term Federal research goals and multiyear funding levels;
- (3) directing the Secretary to undertake initiatives to improve the ability of the private sector to commercialize in the near term renewable energy and energy efficiency technologies; and
- (4) fostering collaborative efforts involving the private sector through government support of a program of demonstration and commercial application projects.

**(c) General authority**

The Secretary, acting in accordance with section 13541 of this title, is authorized and directed to—

- (1) pursue a program of research, development, demonstration, and commercial application with the private sector, to achieve the purpose of this chapter, including the goals established under section 12003 of this title; and
- (2) undertake demonstration and commercial application projects as provided in section 12005 of this title.

(Pub. L. 101-218, § 2, Dec. 11, 1989, 103 Stat. 1859; Pub. L. 102-486, title XII, § 1202(d)(1)-(3), Oct. 24, 1992, 106 Stat. 2959, 2960.)

**Editorial Notes**

REFERENCES IN TEXT

This chapter, referred to in subsecs. (b) and (c)(1), was in the original “this Act”, meaning Pub. L. 101-218, Dec. 11, 1989, 103 Stat. 1859, which is classified principally to this chapter. For complete classification of this Act to the Code, see Short Title note below and Tables.

AMENDMENTS

1992—Subsec. (b). Pub. L. 102-486, § 1202(d)(1), substituted “section 13541 of this title” for “authority contained in the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901-5920) and other law applicable to the Secretary” and “demonstration, and commercial application” for “and demonstration”.

Subsec. (b)(4). Pub. L. 102-486, § 1202(d)(2), substituted “efforts” for “research and development efforts” and “demonstration and commercial application projects” for “joint ventures”.

Subsec. (c). Pub. L. 102-486, § 1202(d)(3), substituted “section 13541 of this title, is authorized and directed to—” and pars. (1) and (2) for “the authority contained in the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901-5920) and other law applicable to the Secretary—

“(1) is authorized and directed to—

“(A) pursue a program of research, development, and demonstration, including the use of joint ventures with the private sector, to achieve the purpose of this chapter, including the goals established under section 12003 of this title; and

“(B) undertake joint ventures as provided in section 12005 of this title; and

“(2) is authorized to undertake, from time to time, joint ventures in technology areas other than those set forth in section 12005(c) of this title, subject to the conditions set forth in section 12005(b) of this title.”

**Statutory Notes and Related Subsidiaries**

SHORT TITLE

Pub. L. 101-218, § 1, Dec. 11, 1989, 103 Stat. 1859, provided: “That this Act [enacting this chapter and amending sections 6276 and 8243 of this title, section 2857 of Title 10, Armed Forces, and section 2194 of Title 22, Foreign Relations and Intercourse] may be referred to as the ‘Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989.’”

**§ 12002. Definitions**

As used in this chapter—

(1) the term “invention” means an invention or discovery that is patented or for which a patent may be obtained under title 35, or any novel variety of plant that is protected or for which plant variety protection may be obtained under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.) and that is conceived or reduced to practice as a result of work under an agreement entered into under this chapter;

(2) the term “non-Federal person” means an entity located in the United States, the controlling interest (as defined by the Secretary) of which is held by persons of the United States, including—

- (A) a for-profit business;
- (B) a private foundation;
- (C) a nonprofit organization such as a university;
- (D) a trade or professional society; and
- (E) a unit of State or local government;

(3) the term “Secretary” means the Secretary of Energy;

(4) the term “small business”, with respect to a participant in any demonstration and commercial application project under this chapter, means a private firm that does not exceed the numerical size standard promulgated by the Small Business Administration under section 632(a) of title 15 for the Standard Industrial Classification (SIC) code designated by the Secretary of Energy as the primary business activity to be undertaken in the demonstration and commercial application project;

(5) the term “source reduction” means any practice which—

(A) reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment, including fugitive emissions, prior to recycling, treatment, or disposal; and

(B) reduces the hazards to the public health and the environment associated with the release of such substances, pollutants, or contaminants,

including equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, and inventory control, but not including any practice which alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the pro-

duction of a product or the providing of a service;<sup>1</sup>

(6) the term “United States” means the several States, the District of Columbia, the Commonwealth of Puerto Rico, the United States Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other Commonwealth, territory, or possession of the United States.

(Pub. L. 101-218, §3, Dec. 11, 1989, 103 Stat. 1859; Pub. L. 102-486, title XII, §1202(d)(4), Oct. 24, 1992, 106 Stat. 2960.)

#### Editorial Notes

##### REFERENCES IN TEXT

This chapter, referred to in introductory provisions and pars. (1) and (4), was in the original “this Act”, meaning Pub. L. 101-218, Dec. 11, 1989, 103 Stat. 1859, known as the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989, which is classified principally to this chapter. For complete classification of this Act to the Code, see Short Title note set out under section 12001 of this title and Tables.

The Plant Variety Protection Act, referred to in par. (1), is Pub. L. 91-577, Dec. 24, 1970, 84 Stat. 1542, as amended, which is classified principally to chapter 57 (§2321 et seq.) of Title 7, Agriculture. For complete classification of this Act to the Code, see Short Title note set out under section 2321 of Title 7 and Tables.

##### AMENDMENTS

1992—Pars. (2) to (5). Pub. L. 102-486 redesignated pars. (3) to (5) as (2) to (4), respectively, in par. (4) substituted “any demonstration and commercial application project” for “any joint venture” and “in the demonstration and commercial application project;” for “in the venture; and”, added par. (5), and struck out former par. (2) which read as follows: “‘joint venture’ means any agreement entered into under this chapter by the Secretary with more than one or a consortium of non-Federal persons (including a joint venture under the National Cooperative Research Act of 1984 (15 U.S.C. 4301 et seq.)) for cost-shared research, development, or demonstration of technologies, but does not include procurement contracts, grant agreements, or cooperative agreements as those terms are used in sections 6303, 6304, and 6305 of title 31;”.

#### § 12003. National goals and multi-year funding for Federal alcohol from biomass and other technology programs

##### (a) National goals

The following are declared to be the national goals for the alcohol from biomass and other energy technology programs being carried out by the Secretary:

##### (1) Alcohol from biomass

(A) In general, the goal of the Alcohol From Biomass Program shall be to advance research and development to a point where alcohol from biomass technology is cost-competitive with conventional hydrocarbon transportation fuels, and to promote the integration of this technology into the transportation fuel sector of the economy.

(B)(i) Specific goals for producing ethanol from biomass shall be to—

(I) reduce the cost of alcohol to 70 cents per gallon;

(II) improve the overall biomass carbohydrate conversion efficiency to 91 percent;

(III) reduce the capital cost component of the cost of alcohol to 23 cents per gallon; and

(IV) reduce the operating and maintenance component of the cost of alcohol to 47 cents per gallon.

(ii) Specific goals for producing methanol from biomass shall be to—

(I) reduce the cost of alcohol to 47 cents per gallon; and

(II) reduce the capital component of the cost of alcohol to 16 cents per gallon.

##### (2) Other technologies

The Secretary shall submit to the Congress, as part of the first report submitted under section 12006 of this title, recommendations for specific cost goals and other pertinent goals for 1995 for Department of Energy research, development, and demonstration programs in Biofuels Energy Systems, Biodiesel Energy Systems, Hydrogen Energy Systems, Solar Buildings Energy Systems, Marine Energy Systems, Geothermal Energy Systems, Low-Head Hydro, and Energy Storage Systems.

##### (b) Amended goals

Whenever the Secretary determines that any of the goals established under this section is no longer appropriate, the Secretary shall notify Congress, as part of a report submitted under section 12006 of this title, of the reason for the determination and provide an amended goal that is consistent with the purpose stated in section 12001(b) of this title.

##### (c) Authorizations

There are authorized to be appropriated to the Secretary for the following renewable energy research, development, and demonstration programs: the Biofuels Energy Systems Program, the Hydrogen Energy Systems Program, the Solar Buildings Energy Systems Program, the Marine Energy Systems Program, and the Geothermal Energy Systems Program—

(1) not to exceed \$113,000,000 for fiscal year 1991, of which—

(A) not to exceed \$19,000,000 shall be available for the Geothermal Energy Systems Program; and

(B) not to exceed \$4,000,000 shall be available for the Hydrogen Energy Systems Program; and

(2) not to exceed \$121,000,000 for fiscal year 1992, of which—

(A) not to exceed \$20,500,000 shall be available for the Geothermal Energy Systems Program; and

(B) not to exceed \$5,000,000 shall be available for the Hydrogen Energy Systems Program.

Each of the President’s annual budget requests submitted to Congress after December 11, 1989, shall include as separate line items each of the categories of renewable energy programs described in this subsection.

(Pub. L. 101-218, §4, Dec. 11, 1989, 103 Stat. 1860; Pub. L. 102-486, title XII, §1202(b), title XXI, §2125(1)-(3), Oct. 24, 1992, 106 Stat. 2958, 3085; Pub.

<sup>1</sup> So in original. Probably should be “; and”.