

(2) agreements and programs which will facilitate the exchange of information and data relating to solar energy resource assessment and solar energy technologies.

(b) The National Science Foundation is authorized to encourage, to the maximum extent practicable and consistent with the other objectives of this subchapter, international participation and cooperation in the development and maintenance of programs of education to carry out the policy set forth in section 5558 of this title.

(Pub. L. 93-473, §11, Oct. 26, 1974, 88 Stat. 1437.)

TRANSFER OF FUNCTIONS

Functions of National Science Foundation relating to or utilized in connection with solar heating and cooling development transferred to Administrator of Energy Research and Development Administration by section 5814(f) of this title. Energy Research and Development Administration terminated and functions vested by law in Administrator thereof transferred to Secretary of Energy (unless otherwise specifically provided) by sections 7151(a) and 7293 of this title.

§ 5561. Regulations

The Chairman, in consultation with heads of the Federal agencies having functions under this subchapter and with other appropriate officers and agencies, shall prescribe such regulations as may be necessary or appropriate to carry out this subchapter promptly and efficiently. Each such officer or agency, in consultation with the Chairman, may prescribe such regulations as may be necessary or appropriate to carry out his or its particular functions under this subchapter promptly and efficiently.

(Pub. L. 93-473, §12, Oct. 26, 1974, 88 Stat. 1437.)

§ 5562. Summary in annual report

A summary of all actions taken under the provisions of this subchapter and action planned for the ensuing year shall be included in the annual report required by section 7267 of this title.

(Pub. L. 93-473, §13, Oct. 26, 1974, 88 Stat. 1437; Pub. L. 96-470, title II, §203(c), Oct. 19, 1980, 94 Stat. 2243.)

AMENDMENTS

1980—Pub. L. 96-470 substituted provision requiring a summary of all action taken and action planned be included in the annual report required by section 7267 of this title for provision requiring the Chairman to report annually to the President and Congress on all action taken, action planned, and a projection, to the extent practical, of activities and funding requirements for the ensuing five years.

§ 5563. Project information to Congressional committees

Notwithstanding any other provision of law, the Chairman (or the head of any agency which assumes the functions of the Project pursuant to section 5565 of this title) shall keep the appropriate committees of the House of Representatives and the Senate fully and currently informed with respect to all activities under this subchapter.

(Pub. L. 93-473, §14, Oct. 26, 1974, 88 Stat. 1437.)

§ 5564. Comprehensive program definition; preparation; utilization of and consultation with other agencies; transmittal to the President and Congress; time of transmittal

(a) The Chairman is authorized and directed to prepare a comprehensive program definition of an integrated effort and commitment for effectively developing solar energy resources. The Chairman, in preparing such program definition, shall utilize and consult with the appropriate Federal agencies, State and local government agencies, and private organizations.

(b) The Chairman shall transmit such comprehensive program definition to the President and to each House of the Congress. An interim report shall be transmitted not later than March 1, 1975. The comprehensive program definition shall be transmitted as soon as possible thereafter, but in any case not later than June 30, 1975.

(Pub. L. 93-473, §15, Oct. 26, 1974, 88 Stat. 1437.)

§ 5565. Transfer of functions

Within sixty days after the effective date of the law creating a permanent Federal organization or agency having jurisdiction over the energy research and development functions of the United States (or within sixty days after October 26, 1974, if the effective date of such law occurs prior to October 26, 1974), all of the authorities of the Project and all of the research and development functions (and other functions except those related to scientific and technical education) vested in Federal agencies under this subchapter along with related records, documents, personnel, obligations, and other items, to the extent necessary or appropriate, shall, in accordance with regulations prescribed by the Office of Management and Budget, be transferred to and vested in such organization or agency.

(Pub. L. 93-473, §16, Oct. 26, 1974, 88 Stat. 1438.)

§ 5566. Authorization of appropriations

To carry out the provisions of this subchapter, there are authorized to be appropriated—

(1) for the fiscal year ending June 30, 1976, \$75,000,000;

(2) for subsequent fiscal years, only such sums as the Congress hereafter may authorize by law;

(3) such amounts as may be authorized for the construction of demonstrations pursuant to section 5556(f) of this title; and

(4) to the National Science Foundation for the fiscal year ending June 30, 1975, not to exceed \$2,000,000 to be made available for use in the preparation of the comprehensive program definition under section 5564 of this title.

(Pub. L. 93-473, §17, Oct. 26, 1974, 88 Stat. 1438.)

SUBCHAPTER III—SOLAR PHOTOVOLTAIC ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION

§ 5581. Congressional findings and declaration of policy

(a) The Congress hereby finds that—

(1) the United States of America is faced with a finite and diminishing resource base of native fossil fuels, and as a consequence must develop as quickly as possible a diversified, pluralistic national energy capability and posture;

(2) the current imbalance between supply and demand for fuels and energy in the United States is likely to grow for many years;

(3) the early demonstration of the feasibility of using solar photovoltaic energy systems for the generation of electricity could help to relieve the demand on existing fuel and energy supplies;

(4) the national security and economic well-being of the United States is endangered by its dependence on imported energy supplies which are subject to resource limitations, artificial pricing mechanisms which do not accurately reflect supply and demand relationships, and supply interruptions;

(5) the early development and widespread utilization of photovoltaic energy systems could significantly expand the domestic energy resource base of the United States, thereby lessening its dependence on foreign supplies;

(6) the establishment of sizable markets for photovoltaic energy systems will justify private investment in plant and equipment necessary to realize the economies of scale, and will result in significant reductions in the unit costs of these systems;

(7) the use of solar photovoltaic energy systems for certain limited applications has already proved feasible;

(8) there appear to be no insoluble technical obstacles to the widespread commercial use of solar photovoltaic energy technologies;

(9) an aggressive research and development program should solve existing technical problems of solar photovoltaic systems; and, supported by an assured and growing market for photovoltaic systems during the next decade, should maximize the future contribution of solar photovoltaic energy to this Nation's future energy production;

(10) it is the proper and appropriate role of the Federal Government to undertake research, development, and demonstration programs in solar photovoltaic energy technologies and to supplement and assist private industry and other entities and thereby the general public, so as to hasten the general commercial use of such technologies;

(11) the high cost of imported energy sources impairs the economic growth of many nations which lack sizable domestic energy supplies or are unable to develop these resources;

(12) photovoltaic energy systems are economically competitive with conventional energy resources for a wide variety of applications in many foreign nations at the present time, and will find additional applications with continued cost reductions;

(13) the early development and export of solar photovoltaic energy systems, consistent with the established preeminence of the United States in the field of high technology products, can make a valuable contribution to the well-being of the people of other nations and to this Nation's balance of trade;

(14) the widespread use of solar photovoltaic energy systems to supplement and replace conventional methods for the generation of electricity would have a beneficial effect upon the environment;

(15) to increase the potential application of solar photovoltaic energy systems in remote locations, and to minimize the need for backup systems depending on fossil fuel, programs leading to the development of inexpensive and reliable systems for the storage of electricity should be pursued as part of any solar photovoltaic energy research, development, and demonstration program;

(16) evaluation of the performance and reliability of solar photovoltaic energy technologies can be expedited by testing of prototypes under carefully controlled conditions;

(17) commercial application of solar photovoltaic energy technologies can be expedited by early commercial demonstration under practical conditions;

(18) photovoltaic energy systems are currently adaptable on a life cycle, cost-justified basis for certain of the energy needs of the Federal Government, and will find additional applications as continued refinements improve performance and reduce unit costs;

(19) the Federal Government can stimulate innovation and economic efficiency in the production of photovoltaic energy systems through the development and implementation of policies to promote diversity and maximum competition between firms engaged in the research, manufacture, installation, and/or maintenance of these systems;

(20) innovation and creativity in the development of solar photovoltaic energy components and systems can be fostered through encouraging direct contact between the manufacturers of such systems and the architects, engineers, developers, contractors, and other persons interested in utilizing such systems; and

(21) it is contemplated that the ten-year program established by this subchapter will require the expenditure of \$1,500,000,000 by the Federal Government.

(b) It is therefore declared to be the policy of the United States and the purpose of this subchapter to establish during the next decade an aggressive research, development, and demonstration program involving solar photovoltaic energy systems and in the long term, to have as an objective the production of electricity from photovoltaic systems cost competitive with utility-generated electricity from conventional sources. Further, it is declared to be the policy of the United States and the purpose of this subchapter that the objectives of this research, development, and demonstration program are—

(1) to double the production of solar photovoltaic energy systems each year during the decade starting with fiscal year 1979, measured by the peak generating capacity of the systems produced, so as to reach a total annual United States production of solar photovoltaic energy systems of approximately two million peak kilowatts, and a total cumulative production of such systems of approximately four million peak kilowatts by fiscal year 1988;

(2) to reduce the average cost of installed solar photovoltaic energy systems to \$1 per peak watt by fiscal year 1988; and

(3) to stimulate the purchase by private buyers of at least 90 per centum of all solar photovoltaic energy systems produced in the United States during fiscal year 1988.

(Pub. L. 95-590, § 2, Nov. 4, 1978, 92 Stat. 2513.)

SHORT TITLE

For short title of this subchapter as the "Solar Photovoltaic Energy Research, Development, and Demonstration Act of 1978", see section 1 of Pub. L. 95-590, set out as a note under section 5501 of this title.

§ 5582. Definitions

For purposes of this subchapter—

(1) a "solar photovoltaic energy system" is a system of components which generates electricity from incident sunlight by means of the photovoltaic effect, and which shall include all components, including energy storage devices where appropriate, necessary to provide electricity for individual, industrial, agricultural, or governmental use;

(2) the term "solar photovoltaic energy system" may be used interchangeably with the term "photovoltaic system";

(3) a "hybrid solar photovoltaic energy system" is a system of components that generates electricity from incident sunlight by means of the photovoltaic effect and, in conjunction with electronic and, if appropriate, optical, thermal and storage devices, provides electricity, as well as heat and/or light for individual, commercial, industrial, agricultural, or governmental use;

(4) "photovoltaic effect" refers to the physical phenomenon exhibited under certain circumstances by some materials in which a portion of the light energy striking the material is directly converted to electrical energy;

(5) "facility" means any building, agricultural, commercial or industrial complex or other device constructively employing photovoltaic systems; and

(6) "Secretary" means the Secretary of Energy.

(Pub. L. 95-590, § 3, Nov. 4, 1978, 92 Stat. 2515.)

§ 5583. Establishment and promotion of research, development, and demonstration programs

The Secretary is directed to establish immediately and carry forth such research, development, and demonstration programs as may be necessary to meet the objectives of this subchapter as set forth in section 5581(b) of this title, and as a part of any such program shall—

(a) conduct, and promote the coordination and acceleration of, research, development, and demonstrations relating to solar photovoltaic energy systems and components thereof, and

(b) conduct, and promote the coordination and acceleration of, research, development, and demonstrations for systems and components to be used in applications that are dependent for their energy on solar photovoltaic energy systems.

(Pub. L. 95-590, § 4, Nov. 4, 1978, 92 Stat. 2515.)

§ 5584. Federal assistance application procedures; selection of applicants; agreements; financial assistance; observation and monitoring of photovoltaic systems; reports; projects and activities

(a) In carrying out the provisions of section 5583 of this title, the Secretary is authorized—

(1) to establish procedures whereby any public or private entity wishing to install solar photovoltaic components and systems in any new or existing facility may apply for Federal assistance in purchasing and installing, in such facility, photovoltaic components or systems;

(2) to select, as soon as he deems it feasible, a number of the applicants under paragraph (1) and enter into agreements with them for the design, purchase, fabrication, testing, installation, and demonstration of photovoltaic components and systems. Such selection shall be based on the need to obtain scientific, technological, and economic information from a variety of such systems under a variety of circumstances and conditions; and

(3) to arrange, as part of any agreement entered into under paragraph (2), to provide up to 75 per centum of the purchase and installation costs of photovoltaic components or systems, taking into account relevant considerations involving the relative stage of consumer and industry interest and development at the time of the financial assistance action. Such arrangements shall be contingent upon terms and conditions prescribed by the Secretary, including an express agreement that the entity with whom the agreement is entered into shall, in such manner and form and on such terms and conditions as the Secretary may prescribe, observe and monitor (or permit the Secretary or his agents to observe and monitor) the performance and operation of such system for a period of five years, and that such entity (including any subsequent owner of the property) shall regularly furnish the Secretary with such reports thereon as the agreement may require.

(b) The Secretary shall, as he deems appropriate, undertake any projects or activities (including demonstration projects) to further the attainment of the objectives of this section.

(Pub. L. 95-590, § 5, Nov. 4, 1978, 92 Stat. 2516.)

CODIFICATION

Section 5583 of this title, referred to in subsec. (a), was in the original "section (4)" and was translated section 5583 of this title as the probable intent of Congress.

§ 5585. Contracts, grants and arrangements

(a) Selection of photovoltaic components and systems, design concepts, and designs

The Secretary is authorized to select on the basis of open competitions—

(1) a number of readily available photovoltaic components and systems;

(2) a number of design concepts for various types of applications which demonstrate adaptability to the utilization of photovoltaic components and systems; and