107TH CONGRESS
1ST SESSION

S. 1166

To establish the Next Generation Lighting Initiative at the Department of Energy, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 11, 2001

Mr. BINGAMAN (for himself and Mr. DEWINE) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To establish the Next Generation Lighting Initiative at the Department of Energy, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as ''Next Generation Lighting Initiative Act''.

SEC. 2. FINDING.

Congress finds that it is in the economic and energy security interests of the United States to encourage the development of white light emitting diodes by providing financial assistance to firms, or a consortium of firms, and

supporting research organizations in the lighting development sectors.

SEC. 3. DEFINITIONS.

In this Act:

(1) CONSORTIUM.—The term ‘‘‘consortium’’ means the Next Generation Lighting Initiative Consortium established under section 5(b).

(2) INORGANIC WHITE LIGHT EMITTING DIODE.—The term ‘‘inorganic white light emitting diode’’ means a semiconducting package that produces white light using externally applied voltage.

(3) LIGHTING INITIATIVE.—The term ‘‘Lighting Initiative’’ means the Next Generation Lighting Initiative established by section 4(a).

(4) ORGANIC WHITE LIGHT EMITTING DIODE.—The term ‘‘organic white light emitting diode’’ means an organic semiconducting compound that produces white light using externally applied voltage.

(5) PLANNING BOARD.—The term ‘‘planning board’’ means the Next Generation Lighting Initiative Planning Board established under section 5(a).

(6) RESEARCH ORGANIZATION.—The term ‘‘research organization’’ means an organization that performs or promotes research, development, and

demonstration activities with respect to white light emitting diodes.

(7) SECRETARY.—The term ''Secretary'' means the Secretary of Energy, acting through the Assistant Secretary of Energy for Energy Efficiency and Renewable Energy.

(8) WHITE LIGHT EMITTING DIODE.—The term ''white light emitting diode'' means—

(A) an inorganic white light emitting diode; and

(B) an organic white light emitting diode.

SEC. 4. NEXT GENERATION LIGHTING INITIATIVE.

(a) ESTABLISHMENT.—There is established in the Department of Energy a lighting initiative to be known as the ''Next Generation Lighting Initiative'' to research, develop, and conduct demonstration activities on white light emitting diodes.

(b) OBJECTIVES.—

(1) IN GENERAL.—The objectives of the Lighting Initiative shall be to develop, by 2011, white light emitting diodes that, compared to incandescent and fluorescent lighting technologies, are—

(A) longer lasting;

(B) more energy-efficient; and

(C) cost-competitive.

(2) INORGANIC WHITE LIGHT EMITTING DIODE.—The objective of the Lighting Initiative with respect to inorganic white light emitting diodes shall be to develop an inorganic white light emitting diode that has an efficiency of 160 lumens per watt and a 10-year lifetime.

(3) ORGANIC WHITE LIGHT EMITTING DIODE.—The objective of the Lighting Initiative with respect to organic white light emitting diodes shall be to develop an organic white light emitting diode with an efficiency of 100 lumens per watt with a 5-year lifetime that—

(A) illuminates over a full color spectrum;

(B) covers large areas over flexible surfaces; and

(C) does not contain harmful pollutants typical of fluorescent lamps such as mercury.

SEC. 5. ADMINISTRATION.

(a) PLANNING BOARD.—

(1) IN GENERAL.—The Secretary shall establish a planning board, to be known as the ''Next Generation Lighting Initiative Planning Board'', to assist the Secretary in developing and implementing the Lighting Initiative.

(2) COMPOSITION.—The planning board shall be composed of—

(A) 4 members from universities, national laboratories, and other individuals with expertise in white lighting, to be appointed by the Secretary; and

(B) 3 members nominated by the consortium and appointed by the Secretary.

(3) STUDY.—

(A) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the planning board shall complete a study on strategies for the development and implementation of white light emitting diodes.

(B) REQUIREMENTS.—The study shall—

(i) develop a comprehensive strategy to implement, through the Lighting Initiative, the use of white light emitting diodes to increase energy efficiency and enhance United States competitiveness; and

(ii) identify the research and development, manufacturing, deployment, and marketing barriers that must be overcome to achieve a goal of a 25 percent market penetration by white light emitting diode

technologies into the incandescent and fluorescent lighting markets by the year 2012.

(C) IMPLEMENTATION.—As soon as practicable after the study is submitted to the Secretary, the Secretary shall implement the Lighting Initiative in accordance with the recommendations of the planning board.

(b) CONSORTIUM.—

(1) IN GENERAL.—The Secretary shall solicit the establishment of a consortium, to be known as the ''Next Generation Lighting Initiative Consortium'', to initiate and manage basic and manufacturing related research contracts on white light emitting diodes for the Lighting Initiative.

(2) COMPOSITION.—The consortium may be composed of firms, national laboratories, and other entities so that the consortium is representative of the United States solid state lighting industry as a whole.

(3) FUNDING.—The consortium shall be funded by—

(A) membership fees; and

(B) grants provided under section 6.

SEC. 6. GRANT PROGRAM.

(a) IN GENERAL.—The Secretary shall make grants to firms, the consortium, and research organizations to conduct research, development, and demonstration projects related to white light emitting diode technologies.

(b) REQUIREMENTS.—To be eligible to receive a grant under this section, a consortium shall—

(1) enter into a consortium participation agreement that—

(A) is agreed to by all members; and

(B) describes the responsibilities of participants, membership fees, and the scope of research activities; and

(2) develop a Lighting Initiative annual program plan.

(c) ANNUAL REVIEW.—

(1) IN GENERAL.—An annual independent review of firms, the consortium, and research organizations receiving a grant under this section shall be conducted by—

(A) a committee appointed by the Secretary under the Federal Advisory Committee Act (5 U.S.C. App.); or

(B) a committee appointed by the National Academy of Sciences.

(2) REQUIREMENTS.—Using clearly defined standards established by the Secretary, the review shall assess technology advances and commercial applicability of—

(A) the activities of the firms, consortium, or research organizations during each fiscal year of the grant program; and

(B) the goals of the firms, consortium, or research organizations for the next fiscal year in the annual program plan developed under subsection (b)(2).

(d) ALLOCATION AND COST SHARING.—

(1) IN GENERAL.—The amount of funds made available for any fiscal year to provide grants under this section shall be allocated in accordance with paragraphs (2) and (3).

(2) RESEARCH PROJECTS.—Funding for basic and manufacturing research projects shall be allocated to the consortium.

(3) DEVELOPMENT, DEPLOYMENT, AND DEMONSTRATION PROJECTS.—Funding for development, deployment, and demonstration projects shall be allocated to members of the consortium.

(4) COST SHARING.—Non-federal cost sharing shall be in accordance with section 3002 of the Energy Policy Act of 1992 (42 U.S.C. 13542).

(e) TECHNICAL AND FINANCIAL ASSISTANCE.—The national laboratories and other pertinent Federal agencies shall cooperate with and provide technical and financial assistance to firms, the consortium, and research organizations conducting research, development, and demonstration projects carried out under this section.

(f) AUDITS.—

(1) IN GENERAL.—The Secretary shall retain an independent, commercial auditor to determine the extent to which funds made available under this Act have been expended in a manner that is consistent with the objectives under section 4(b) and the annual operating plan of the consortium developed under subsection (b)(2).

(2) REPORTS.—The auditor shall submit to Congress, the Secretary, and the Comptroller General of the United States an annual report containing the results of the audit.

(g) APPLICABLE LAW.—The Lighting Initiative shall not be subject to the Federal Acquisition Regulation.

SEC. 7. PROTECTION OF INFORMATION.

Information obtained by the Federal Government on a confidential basis under this Act shall be considered to constitute trade secrets and commercial or financial information obtained from a person and privileged or confidential under section 552(b)(4) of title 5, United States Code.

SEC. 8. INTELLECTUAL PROPERTY.

Members of the consortium shall have royalty-free nonexclusive rights to use intellectual property derived from consortium research conducted under this Act.

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There are authorized to be appropriated to carry out this Act—

(1) $30,000,000 for fiscal year 2002; and

(2) $50,000,000 for each of fiscal years 2003 through 2011.

(b) AVAILABILITY.—Amounts made available under this section shall remain available until expended.

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