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109TH CONGRESS
2D SESSION

H. R. 5538

To reduce the Nation's dependence on foreign sources of oil by promoting plug-in hybrid electric vehicles and related advanced vehicle technologies.

IN THE HOUSE OF REPRESENTATIVES

JUNE 7, 2006

Mr. SMITH of Texas (for himself, Mr. HONDA, Mrs. BIGGERT, Mr. GORDON, Mr. KINGSTON, Mr. DOGGETT, Mr. BOEHLERT, Mr. BARTLETT of Maryland, Mr. ENGEL, and Mr. MCCAUL of Texas) introduced the following bill; which was referred to the Committee on Science

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A BILL

To reduce the Nation's dependence on foreign sources of oil by promoting plug-in hybrid electric vehicles and related advanced vehicle technologies.

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 the ''Plug-In Hybrid Electric Vehicle Act of 2006''.

SEC. 2. NEAR-TERM VEHICLE TECHNOLOGY PROGRAM.

(a) DEFINITIONS.—In this section:

(1) BATTERY.—The term ''battery'' means a device or system for the electrochemical storage of energy.

(2) BIOMASS.—The term ''biomass'' has meaning given the term in section 932 of the Energy Policy Act of 2005 (42 U.S.C. 16232).

(3) E85.—The term ''E85'' means a fuel blend containing 85 percent ethanol and 15 percent gasoline by volume.

(4) ELECTRIC DRIVE TRANSPORTATION TECHNOLOGY.—The term ''electric drive transportation technology'' means—

(A) vehicles that use an electric motor for all or part of their motive power and that may or may not use offboard electricity, including battery electric vehicles, fuel cell vehicles, hybrid electric vehicles, plug-in hybrid electric vehicles, flexible fuel plug-in hybrid electric vehicles, and electric rail; and

(B) related equipment, including electric equipment necessary to recharge a plug-in hybrid electric vehicle.

(5) FLEXIBLE FUEL PLUG-IN HYBRID ELECTRIC VEHICLE.—The term ''flexible fuel plug-in hy-

brid electric vehicle'' means a plug-in hybrid electric vehicle—

(A) warranted by its manufacturer as capable of operating on any combination of gasoline or E85 for its onboard internal combustion or heat engine; or

(B) that uses a fuel cell for battery charging when disconnected from offboard power sources.

(6) FUEL CELL VEHICLE.—The term ''fuel cell vehicle'' means an onroad vehicle that uses a fuel cell (as defined in section 803 of the Energy Policy Act of 2005 (42 U.S.C. 16152)).

(7) HYBRID ELECTRIC VEHICLE.—The term ''hybrid electric vehicle'' means an onroad vehicle that—

(A) can operate on either liquid combustible fuel or electric power provided by an onboard battery; and

(B) utilizes regenerative power capture technology to recover energy expended in braking the vehicle for use in recharging the battery.

(8) PLUG-IN HYBRID ELECTRIC VEHICLE.—The term ''plug-in hybrid electric vehicle'' means a hy-

brid electric vehicle that can operate solely on electric power for a minimum of 20 miles under city driving conditions, and that is capable of recharging its battery from an offboard electricity source.

(9) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(b) PROGRAM.—The Secretary shall conduct a program of research, development, demonstration, and commercial application on technologies needed for the development of plug-in hybrid electric vehicles, including—

(1) high capacity, high efficiency batteries, to—

(A) improve battery life, energy storage capacity, and power delivery capacity, and lower cost; and

(B) minimize waste and hazardous material production in the entire value chain, including after the end of the useful life of the batteries;

(2) high efficiency onboard and offboard charging components;

(3) high power drive train systems for passenger and commercial vehicles and for supporting equipment;

(4) onboard energy management systems, power trains, and systems integration for plug-in hybrid

electric vehicles, flexible fuel plug-in hybrid electric vehicles, and hybrid electric vehicles, including efficient cooling systems and systems that minimize the emissions profile of such vehicles; and

(5) lightweight materials, including research, development, demonstration, and commercial application to reduce the cost of materials such as steel alloys and carbon fibers.

(c) PLUG-IN HYBRID ELECTRIC VEHICLE DEMONSTRATION PROGRAM.—

(1) ESTABLISHMENT.—The Secretary shall establish a competitive grant pilot demonstration program to provide not more than 25 grants annually to State governments, local governments, metropolitan transportation authorities, or combinations thereof to carry out a project or projects for demonstration of plug-in hybrid electric vehicles.

(2) APPLICATIONS.—

(A) REQUIREMENTS.—The Secretary shall issue requirements for applying for grants under the demonstration pilot program. The Secretary shall require that applications, at a minimum, include a description of how data will be—

(i) collected on the—

(I) performance of the vehicle or vehicles and the components, including the battery, energy management, and charging systems, under various driving speeds, trip ranges, traffic, and other driving conditions;

(II) costs of the vehicle or vehicles, including acquisition, operating, and maintenance costs, and how the project or projects will be self-sustaining after Federal assistance is completed; and

(III) emissions of the vehicle or vehicles, including greenhouse gases, and the amount of petroleum displaced as a result of the project or projects; and

(ii) summarized for dissemination to the Department, other grantees, and the public.

(B) PARTNERS.—An applicant under subparagraph (A) may carry out a project or projects under the pilot program in partnership with one or more private entities.

(3) SELECTION CRITERIA.—

(A) PREFERENCE.—When making awards under this subsection, the Secretary shall consider each applicant's previous experience involving plug-in hybrid electric vehicles and shall give preference to proposals that—

(i) provide the greatest demonstration per award dollar, with preference increasing as the number of miles that a plug-in hybrid electric vehicle can operate solely on electric power under city driving conditions increases; and

(ii) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed project or projects and the greatest likelihood that each project proposed in the application will be maintained or expanded after Federal assistance under this subsection is completed.

(B) BREADTH OF DEMONSTRATIONS.—In awarding grants under this subsection, the Secretary shall ensure the program will demonstrate plug-in hybrid electric vehicles under various circumstances, including—

(i) driving speeds;

(ii) trip ranges;

(iii) driving conditions;

(iv) climate conditions; and

(v) topography,

to optimize understanding and function of plug-in hybrid electric vehicles.

(5) PILOT PROJECT REQUIREMENTS.—

(A) SUBSEQUENT FUNDING.—An applicant that has received a grant in one year may apply for additional funds in subsequent years, but the Secretary shall not provide more than $10,000,000 in Federal assistance under the pilot program to any applicant for the period encompassing fiscal years 2007 through fiscal year 2011.

(B) INFORMATION.—The Secretary shall establish mechanisms to ensure that the information and knowledge gained by participants in the pilot program are shared among the pilot program participants and are available to other interested parties, including other applicants.

(6) AWARD AMOUNTS.—The Secretary shall determine grant amounts, but the maximum size of grants shall decline as the cost of producing plug-in hybrid electric vehicles declines or the cost of con-

verting a hybrid electric vehicle to a plug-in hybrid electric vehicle declines.

(d) COST SHARING.—The Secretary shall carry out the program under this section in compliance with section 988(a) through (d) and section 989 of the Energy Policy Act of 2005 (42 U.S.C. 16352(a) through (d) and 16353).

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary—

(1) for carrying out subsection (b), $250,000,000 for each of fiscal years 2007 through 2011, of which up to $50,000,000 may be used for the program described in paragraph (5) of that subsection; and

(2) for carrying out subsection (c), $50,000,000 for each of fiscal years 2007 through 2011.

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