

110TH CONGRESS
1ST SESSION

H. R. 2079

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

IN THE HOUSE OF REPRESENTATIVES

APRIL 30, 2007

Mr. SMITH of Texas (for himself, Mrs. BIGGERT, Mr. EHLERS, Mr. DOGGETT, Mr. MCCAUL of Texas, and Ms. MCCOLLUM of Minnesota) introduced the following bill; which was referred to the Committee on Science and Technology

A BILL

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

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Plug-In Hybrid Elec-
5 tric Vehicle Act of 2007”.

6 **SEC. 2. NEAR-TERM VEHICLE TECHNOLOGY PROGRAM.**

7 (a) DEFINITIONS.—In this section:

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

4 (2) BIOMASS.—The term “biomass” has mean-
5 ing given the term in section 932 of the Energy Pol-
6 icy Act of 2005 (42 U.S.C. 16232).

7 (3) E85.—The term “E85” means a fuel blend
8 containing 85 percent ethanol and 15 percent gaso-
9 line by volume.

10 (4) ELECTRIC DRIVE TRANSPORTATION TECH-
11 NOLOGY.—The term “electric drive transportation
12 technology” means—

13 (A) vehicles that use an electric motor for
14 all or part of their motive power and that may
15 or may not use offboard electricity, including
16 battery electric vehicles, fuel cell vehicles, hy-
17 brid electric vehicles, plug-in hybrid electric ve-
18 hicles, flexible fuel plug-in hybrid electric vehi-
19 cles, and electric rail; and

20 (B) related equipment, including electric
21 equipment necessary to recharge a plug-in hy-
22 brid electric vehicle.

23 (5) FLEXIBLE FUEL PLUG-IN HYBRID ELEC-
24 TRIC VEHICLE.—The term “flexible fuel plug-in hy-

1 brid electric vehicle” means a plug-in hybrid electric
2 vehicle—

3 (A) warranted by its manufacturer as ca-
4 pable of operating on any combination of gaso-
5 line or E85 for its onboard internal combustion
6 or heat engine; or

7 (B) that uses a fuel cell for battery charg-
8 ing when disconnected from offboard power
9 sources.

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

14 (7) HYBRID ELECTRIC VEHICLE.—The term
15 “hybrid electric vehicle” means an onroad vehicle
16 that—

17 (A) can operate on either liquid combus-
18 tible fuel or electric power provided by an on-
19 board battery; and

20 (B) utilizes regenerative power capture
21 technology to recover energy expended in brak-
22 ing the vehicle for use in recharging the bat-
23 tery.

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

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

5 (9) SECRETARY.—The term “Secretary” means
6 the Secretary of Energy.

7 (b) PROGRAM.—The Secretary shall conduct a pro-
8 gram of research, development, demonstration, and com-
9 mercial application on technologies needed for the develop-
10 ment of plug-in hybrid electric vehicles, including—

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

12 (A) improve battery life, energy storage ca-
13 pacity, and power delivery capacity, and lower
14 cost; and

15 (B) minimize waste and hazardous mate-
16 rial production in the entire value chain, includ-
17 ing after the end of the useful life of the bat-
18 teries;

19 (2) high efficiency onboard and offboard charg-
20 ing components;

21 (3) high power drive train systems for pas-
22 senger and commercial vehicles and for supporting
23 equipment;

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

1 electric vehicles, flexible fuel plug-in hybrid electric
2 vehicles, and hybrid electric vehicles, including effi-
3 cient cooling systems and systems that minimize the
4 emissions profile of such vehicles; and

5 (5) lightweight materials, including research,
6 development, demonstration, and commercial appli-
7 cation to reduce the cost of materials such as steel
8 alloys and carbon fibers.

9 (c) PLUG-IN HYBRID ELECTRIC VEHICLE DEM-
10 ONSTRATION PROGRAM.—

11 (1) ESTABLISHMENT.—The Secretary shall es-
12 tablish a competitive grant pilot demonstration pro-
13 gram to provide not more than 25 grants annually
14 to State governments, local governments, metropoli-
15 tan transportation authorities, or combinations
16 thereof to carry out a project or projects for dem-
17 onstration of plug-in hybrid electric vehicles.

18 (2) APPLICATIONS.—

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

25 (i) collected on the—

1 (I) performance of the vehicle or
2 vehicles and the components, includ-
3 ing the battery, energy management,
4 and charging systems, under various
5 driving speeds, trip ranges, traffic,
6 and other driving conditions;

7 (II) costs of the vehicle or vehi-
8 cles, including acquisition, operating,
9 and maintenance costs, and how the
10 project or projects will be self-sus-
11 taining after Federal assistance is
12 completed; and

13 (III) emissions of the vehicle or
14 vehicles, including greenhouse gases,
15 and the amount of petroleum dis-
16 placed as a result of the project or
17 projects; and

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

21 (B) PARTNERS.—An applicant under sub-
22 paragraph (A) may carry out a project or
23 projects under the pilot program in partnership
24 with one or more private entities.

25 (3) SELECTION CRITERIA.—

1 (A) PREFERENCE.—When making awards
2 under this subsection, the Secretary shall con-
3 sider each applicant’s previous experience in-
4 volving plug-in hybrid electric vehicles and shall
5 give preference to proposals that—

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

12 (ii) demonstrate the greatest commit-
13 ment on the part of the applicant to ensure
14 funding for the proposed project or
15 projects and the greatest likelihood that
16 each project proposed in the application
17 will be maintained or expanded after Fed-
18 eral assistance under this subsection is
19 completed.

20 (B) BREADTH OF DEMONSTRATIONS.—In
21 awarding grants under this subsection, the Sec-
22 retary shall ensure the program will dem-
23 onstrate plug-in hybrid electric vehicles under
24 various circumstances, including—

25 (i) driving speeds;

- 1 (ii) trip ranges;
2 (iii) driving conditions;
3 (iv) climate conditions; and
4 (v) topography,

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

7 (4) PILOT PROJECT REQUIREMENTS.—

8 (A) SUBSEQUENT FUNDING.—An applicant
9 that has received a grant in one year may apply
10 for additional funds in subsequent years, but
11 the Secretary shall not provide more than
12 \$10,000,000 in Federal assistance under the
13 pilot program to any applicant for the period
14 encompassing fiscal years 2008 through fiscal
15 year 2012.

16 (B) INFORMATION.—The Secretary shall
17 establish mechanisms to ensure that the infor-
18 mation and knowledge gained by participants in
19 the pilot program are shared among the pilot
20 program participants and are available to other
21 interested parties, including other applicants.

22 (5) AWARD AMOUNTS.—The Secretary shall de-
23 termine grant amounts, but the maximum size of
24 grants shall decline as the cost of producing plug-in
25 hybrid electric vehicles declines or the cost of con-

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

3 (d) COST SHARING.—The Secretary shall carry out
4 the program under this section in compliance with section
5 988(a) through (d) and section 989 of the Energy Policy
6 Act of 2005 (42 U.S.C. 16352(a) through (d) and 16353).

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

9 (1) for carrying out subsection (b),
10 \$250,000,000 for each of fiscal years 2008 through
11 2012, of which up to \$50,000,000 may be used for
12 the program described in paragraph (5) of that sub-
13 section; and

14 (2) for carrying out subsection (c), \$50,000,000
15 for each of fiscal years 2008 through 2012.

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