

Union Calendar No. 194

110TH CONGRESS
1ST SESSION

H. R. 3239

[Report No. 110-307, Part I]

To promote advanced plug-in hybrid vehicles and vehicle components.

IN THE HOUSE OF REPRESENTATIVES

JULY 31, 2007

Mr. BOUCHER (for himself and Mr. DINGELL) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Oversight and Government Reform and Science and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

AUGUST 3, 2007

Reported from the Committee on Energy and Commerce

AUGUST 3, 2007

Committees on Oversight and Government Reform and Science and Technology discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

A BILL

To promote advanced plug-in hybrid vehicles and vehicle components.

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

1 **SECTION 1. ADVANCED BATTERY LOAN GUARANTEE PRO-**
2 **GRAM.**

3 (a) ESTABLISHMENT OF PROGRAM.—The Secretary
4 of Energy shall establish a program to provide guarantees
5 of loans by private institutions for the construction of fa-
6 cilities for the manufacture of advanced vehicle batteries
7 and battery systems that are developed and produced in
8 the United States, including advanced lithium ion bat-
9 teries and hybrid electrical system and component manu-
10 facturers and software designers.

11 (b) REQUIREMENTS.—The Secretary may provide a
12 loan guarantee under subsection (a) to an applicant if—

13 (1) without a loan guarantee, credit is not
14 available to the applicant under reasonable terms or
15 conditions sufficient to finance the construction of a
16 facility described in subsection (a);

17 (2) the prospective earning power of the appli-
18 cant and the character and value of the security
19 pledged provide a reasonable assurance of repayment
20 of the loan to be guaranteed in accordance with the
21 terms of the loan; and

22 (3) the loan bears interest at a rate determined
23 by the Secretary to be reasonable, taking into ac-
24 count the current average yield on outstanding obli-
25 gations of the United States with remaining periods
26 of maturity comparable to the maturity of the loan.

1 (c) CRITERIA.—In selecting recipients of loan guar-
2 antees from among applicants, the Secretary shall give
3 preference to proposals that—

4 (1) meet all applicable Federal and State per-
5 mitting requirements;

6 (2) are most likely to be successful; and

7 (3) are located in local markets that have the
8 greatest need for the facility.

9 (d) MATURITY.—A loan guaranteed under subsection
10 (a) shall have a maturity of not more than 20 years.

11 (e) TERMS AND CONDITIONS.—The loan agreement
12 for a loan guaranteed under subsection (a) shall provide
13 that no provision of the loan agreement may be amended
14 or waived without the consent of the Secretary.

15 (f) ASSURANCE OF REPAYMENT.—The Secretary
16 shall require that an applicant for a loan guarantee under
17 subsection (a) provide an assurance of repayment in the
18 form of a performance bond, insurance, collateral, or other
19 means acceptable to the Secretary in an amount equal to
20 not less than 20 percent of the amount of the loan.

21 (g) GUARANTEE FEE.—The recipient of a loan guar-
22 antee under subsection (a) shall pay the Secretary an
23 amount determined by the Secretary to be sufficient to
24 cover the administrative costs of the Secretary relating to
25 the loan guarantee.

1 (h) FULL FAITH AND CREDIT.—The full faith and
2 credit of the United States is pledged to the payment of
3 all guarantees made under this section. Any such guar-
4 antee made by the Secretary shall be conclusive evidence
5 of the eligibility of the loan for the guarantee with respect
6 to principal and interest. The validity of the guarantee
7 shall be incontestable in the hands of a holder of the guar-
8 anteed loan.

9 (i) REPORTS.—Until each guaranteed loan under this
10 section has been repaid in full, the Secretary shall annu-
11 ally submit to Congress a report on the activities of the
12 Secretary under this section.

13 (j) AUTHORIZATION OF APPROPRIATIONS.—There
14 are authorized to be appropriated such sums as are nec-
15 essary to carry out this section.

16 (k) TERMINATION OF AUTHORITY.—The authority of
17 the Secretary to issue a loan guarantee under subsection
18 (a) terminates on the date that is 10 years after the date
19 of enactment of this Act.

20 **SEC. 2. DOMESTIC MANUFACTURING CONVERSION GRANT**
21 **PROGRAM.**

22 Section 712 of the Energy Policy Act of 2005 (42
23 U.S.C. 16062) is amended—

24 (1) in subsection (a)—

1 (A) by inserting “and components thereof”
2 after “sales of efficient hybrid and advanced
3 diesel vehicles”;

4 (B) by inserting “and hybrid component
5 manufacturers” after “grants to automobile
6 manufacturers”;

7 (C) by inserting “, plug-in electric hybrid,”
8 after “production of efficient hybrid”;

9 (D) by inserting “and suppliers” after
10 “automobile manufacturers”; and

11 (E) by adding at the end the following:
12 “Priority shall be given to the refurbishment or
13 retooling of manufacturing facilities that have
14 recently ceased operation or will cease operation
15 in the near future.”; and

16 (2) by striking subsection (b) and inserting the
17 following:

18 “(b) COORDINATION WITH STATE AND LOCAL PRO-
19 GRAMS.—The Secretary may coordinate implementation of
20 this section with State and local programs designed to ac-
21 complish similar goals, including the retention and retrain-
22 ing of skilled workers from the such manufacturing facili-
23 ties, including by establishing matching grant arrange-
24 ments.

1 “(c) AUTHORIZATION OF APPROPRIATIONS.—There
2 are authorized to be appropriated to the Secretary such
3 sums as may be necessary to carry out this section.”.

4 **SEC. 3. PLUG-IN HYBRID VEHICLE PROGRAM.**

5 (a) PLUG-IN ELECTRIC DRIVE VEHICLE PRO-
6 GRAM.—

7 (1) ESTABLISHMENT.—The Secretary of En-
8 ergy (in this section referred to as the “Secretary”)
9 shall establish a competitive program to provide
10 grants on a cost-shared basis to State governments,
11 local governments, metropolitan transportation au-
12 thorities, air pollution control districts, private or
13 nonprofit entities or combinations thereof, to carry
14 out a project or projects to encourage the use of
15 plug-in electric drive vehicles or other emerging elec-
16 tric vehicle technologies, as determined by the Sec-
17 retary.

18 (2) ADMINISTRATION.—The Secretary shall es-
19 tablish requirements for applications for grants
20 under this section, including reporting of data to be
21 summarized for dissemination to the Department,
22 other grantees, and the public, including vehicle and
23 component performance and vehicle and component
24 life cycle costs.

25 (3) SELECTION CRITERIA.—

1 (A) PRIORITY.—When making awards
2 under this subsection, the Secretary shall give
3 priority consideration to applications that en-
4 courage early widespread utilization of such ve-
5 hicles and are likely to make a significant con-
6 tribution to the advancement of the production
7 of such vehicles in the United States.

8 (B) SCOPE OF PROGRAMS.—When making
9 awards under this subsection, the Secretary
10 shall ensure that the programs will maximize
11 diversity in applications, manufacturers, end-
12 uses and vehicle control systems.

13 (4) AUTHORIZATIONS OF APPROPRIATIONS.—
14 There are authorized to be appropriated to the Sec-
15 retary to carry out the program under this sub-
16 section, such sums as may be necessary.

17 (5) CERTAIN APPLICANTS.—A battery manufac-
18 turer that proposes to supply to an applicant for a
19 grant under this section a battery with a capacity of
20 greater than 1 kilowatt-hour for use in a plug-in
21 electric drive vehicle shall—

22 (A) ensure that the applicant includes in
23 the application a description of the price of the
24 battery per kilowatt hour;

1 (B) on approval by the Secretary of the
2 application, publish, or permit the Secretary to
3 publish, the price described in subparagraph
4 (A); and

5 (C) for any order received by the battery
6 manufacturer for at least 1,000 batteries, offer
7 batteries at that price.

8 (b) ELECTRIC DRIVE EDUCATION PROGRAM.—

9 (1) IN GENERAL.—The Secretary shall develop
10 a nationwide electric drive transportation education
11 program under which the Secretary shall provide—

12 (A) teaching materials to secondary schools
13 and high schools; and

14 (B) assistance for programs relating to
15 electric drive system and component engineer-
16 ing to institutions of higher education.

17 (2) ELECTRIC VEHICLE COMPETITION.—The
18 program established under paragraph (1) shall in-
19 clude a plug-in hybrid electric vehicle competition for
20 institutions of higher education, which shall be
21 known as the “Dr. Andrew Frank Plug-In Hybrid
22 Electric Vehicle Competition”.

23 (3) ENGINEERS.—In carrying out the program
24 established under paragraph (1), the Secretary shall
25 provide financial assistance to institutions of higher

1 education to create new, or support existing, degree
2 programs to ensure the availability of trained elec-
3 trical and mechanical engineers with the skills nec-
4 essary for the advancement of—

5 (A) plug-in electric drive vehicles; and

6 (B) other forms of electric drive vehicles.

7 (4) AUTHORIZATION OF APPROPRIATIONS.—

8 There are authorized to be appropriated to the Sec-
9 retary to carry out this subsection such sums as may
10 be necessary.

11 **SEC. 4. PLUG-IN HYBRID DEMONSTRATION VEHICLES.**

12 (a) IN GENERAL.—The Secretary of Energy shall es-
13 tablish a program to make grants to owners of domestic
14 motor vehicle manufacturing or production facilities for
15 the production of plug-in hybrid electric motors or conver-
16 sion modules to be used as electricity storage capacity for
17 utilities.

18 (b) PROGRAMS.—The Secretary of Energy shall es-
19 tablish programs to determine how to best integrate plug-
20 in hybrid vehicles into the electric power grid and into the
21 overall electricity infrastructure. These programs shall be
22 conducted in 5 separate regions across the United States
23 at the discretion of the Secretary.

24 (c) PILOT PROGRAMS.—The Secretary shall establish
25 during the first 6 months of 2008, with other govern-

1 mental entities, no less than 5 separate pilot programs to
2 convert at least 1000 vehicles in each program to plug-
3 hybrid electric vehicles.

4 (d) FEDERAL CONTRIBUTION.—The Department of
5 Energy shall contribute up to 50 percent of the cost of
6 conversion modules.

7 (e) INSTALLATION.—Installations of electricity stor-
8 age devices shall be undertaken by trained and certified
9 mechanics.

10 (f) MONITORING.—The Secretary of Energy shall re-
11 quire the monitoring of reliability, efficiency, breakeven
12 costs, and customer satisfaction for a period of 3 years.

13 (g) AUTHORIZATION OF APPROPRIATIONS.—There
14 are authorized to be appropriated to the Secretary such
15 sums as may be necessary to carry out this section.

16 **SEC. 5. INCENTIVE FOR FEDERAL AND STATE FLEETS FOR**
17 **MEDIUM AND HEAVY DUTY HYBRIDS.**

18 Section 301 of the Energy Policy Act of 1992 (42
19 U.S.C. 13211) is amended—

20 (1) in paragraph (3), by striking “or a dual
21 fueled vehicle” and inserting “, a dual fueled vehicle,
22 or a medium or heavy duty vehicle that is a hybrid
23 vehicle”;

1 (2) by redesignating paragraphs (11), (12),
2 (13), and (14) as paragraphs (12), (14), (15), and
3 (16), respectively;

4 (3) by inserting after paragraph (10) the fol-
5 lowing new paragraph:

6 “(11) the term ‘hybrid vehicle’ means a vehicle
7 powered both by a diesel or gasoline engine and an
8 electric motor or hydraulic energy storage device
9 that is recharged as the vehicle operates;”;

10 (4) by inserting after paragraph (12) (as so re-
11 designated by paragraph (2) of this section) the fol-
12 lowing new paragraph:

13 “(13) the term ‘medium or heavy duty vehicle’
14 means a vehicle that—

15 “(A) in the case of a medium duty vehicle,
16 has a gross vehicle weight rating of more than
17 8,500 pounds but not more than 14,000
18 pounds; and

19 “(B) in the case of a heavy duty vehicle,
20 has a gross vehicle weight rating of more than
21 14,000 pounds;”.

22 **SEC. 6. INCLUSION OF ELECTRIC DRIVE IN ENERGY POLICY**
23 **ACT OF 1992.**

24 Section 508 of the Energy Policy Act of 1992 (42
25 U.S.C. 13258) is amended—

1 (1) by striking “The Secretary” in subsection
2 (a) and inserting “(1) The Secretary”; and

3 (2) by adding at the end of subsection (a) the
4 following:

5 “(2) Not later than January 31, 2009, the Secretary
6 shall allocate credit in an amount to be determined by the
7 Secretary for acquisition of—

8 “(A) a hybrid electric vehicle;

9 “(B) a plug-in hybrid electric vehicle;

10 “(C) a fuel cell electric vehicle;

11 “(D) a neighborhood electric vehicle; or

12 “(E) a medium-duty or heavy-duty electric, hy-
13 brid electric, hybrid hydraulic, or plug-in hybrid elec-
14 tric vehicle.”; and

15 (3) by adding at the end the following:

16 “(e) DEFINITIONS.—In this section:

17 “(1) FUEL CELL ELECTRIC VEHICLE.—The
18 term ‘fuel cell electric vehicle’ means an on-road or
19 nonroad vehicle that uses a fuel cell (as defined in
20 section 803 of the Spark M. Matsunaga Hydrogen
21 Research, Development, and Demonstration Act of
22 2005 (42 U.S.C. 16152)).

23 “(2) HYBRID ELECTRIC VEHICLE.—The term
24 ‘hybrid electric vehicle’ means a new qualified hybrid

1 motor vehicle (as defined in section 30B(d)(3) of the
2 Internal Revenue Code of 1986).

3 “(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC,
4 HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC
5 VEHICLE.—The term ‘medium-duty or heavy-duty
6 electric, hybrid electric, or plug-in hybrid electric ve-
7 hicle’ is an electric, hybrid electric, or plug-in hybrid
8 electric motor vehicle greater than 8,501 pounds
9 gross vehicle rating.

10 “(4) NEIGHBORHOOD ELECTRIC VEHICLE.—
11 The term ‘neighborhood electric vehicle’ means a 4-
12 wheeled on-road or nonroad vehicle, with a top at-
13 tainable speed in 1 mile of more than 20 mph and
14 not more than 25 mph on a paved level surface, that
15 is propelled by an electric motor and on board, re-
16 chargeable energy storage system that is recharge-
17 able using an off-board source of electricity.

18 “(5) PLUG-IN HYBRID ELECTRIC VEHICLE.—
19 The term ‘plug-in hybrid electric vehicle’ means a
20 light-duty, medium-duty, or heavy-duty on-road or
21 nonroad vehicle that is propelled by any combination
22 of—

23 “(A) an electric motor and on-board, re-
24 chargeable energy storage system capable of op-
25 erating the vehicle in intermittent or continuous

1 all-electric mode and which is rechargeable
2 using an off-board source of electricity; and

3 “(B) an internal combustion engine or
4 heat engine using any combustible fuel.

5 “(f) AUTHORIZATION OF APPROPRIATIONS.—There
6 are authorized to be appropriated to carry out this section
7 such sums as are necessary for each of fiscal years 2008
8 through 2013.”.

9 **SEC. 7. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION**
10 **DEPLOYMENT PROGRAM.**

11 (a) REVOLVING LOAN PROGRAM.—

12 (1) IN GENERAL.—The Secretary shall establish
13 a revolving loan program to provide loans to eligible
14 entities for the conduct of qualified electric transpor-
15 tation projects.

16 (2) CRITERIA.—The Secretary shall establish
17 criteria for the provision of loans under this sub-
18 section.

19 (b) MARKET ASSESSMENT AND ELECTRICITY USAGE
20 PROGRAM.—

21 (1) IN GENERAL.—The Administrator of the
22 Environmental Protection Agency, in consultation
23 with the Secretary and private industry, shall carry
24 out a program—

1 (A) to inventory and analyze existing elec-
2 tric drive transportation technologies and hy-
3 brid technologies and markets; and

4 (B) to identify and implement methods of
5 removing barriers for existing and emerging ap-
6 plications of electric drive transportation tech-
7 nologies and hybrid transportation technologies.

8 (2) ELECTRICITY USAGE.—The Secretary, in
9 consultation with the Administrator of the Environ-
10 mental Protection Agency and private industry, shall
11 carry out a program—

12 (A) to develop systems and processes—

13 (i) to enable plug-in electric vehicles
14 to enhance the availability of emergency
15 back-up power for consumers; and

16 (ii) to study and demonstrate the po-
17 tential value to the electric grid of using
18 the energy stored in the on-board storage
19 systems to improve the efficiency of the
20 grid generation system; and

21 (B) to work with utilities and other inter-
22 ested stakeholders to study and demonstrate
23 the implications of the introduction of plug-in
24 electric vehicles and other types of electric

1 transportation on the production of electricity
2 from renewable resources.

3 (3) OFF-PEAK ELECTRICITY USAGE GRANTS.—

4 In carrying out the program under paragraph (2),
5 the Secretary shall provide grants to assist eligible
6 public and private electric utilities to conduct pro-
7 grams or activities to encourage owners of electric
8 drive transportation technologies—

9 (A) to use off-peak electricity; or

10 (B) to have the load managed by the util-
11 ity.

12 (c) DEFINITION OF QUALIFIED ELECTRIC TRANS-
13 PORTATION PROJECT.—In this section, the term “quali-
14 fied electric transportation project” includes a project re-
15 lating to—

16 (1) ship-side or shore-side electrification for
17 vessels;

18 (2) truck-stop electrification;

19 (3) electric truck refrigeration units;

20 (4) battery-powered auxiliary power units for
21 trucks;

22 (5) electric airport ground support equipment;

23 (6) electric material/cargo handling equipment;

24 (7) electric or dual-mode electric freight rail;

1 (8) any distribution upgrades needed to supply
2 electricity to the qualified electric transportation
3 projects; and

4 (9) any ancillary infrastructure, including panel
5 upgrades, battery chargers, in-situ transformer, and
6 trenching.

7 (d) AUTHORIZATION OF APPROPRIATIONS.—There
8 are authorized to carry this section such sums as may be
9 necessary.

10 **SEC. 8. STUDYING THE BENEFITS OF PLUG-IN HYBRID**

11 **ELECTRIC DRIVE VEHICLES AND ELECTRIC**

12 **DRIVE TRANSPORTATION.**

13 (a) STUDY.—

14 (1) CITY CARS.—Not later than 1 year after the
15 date of enactment of this section, the Secretary of
16 Transportation in consultation with the Secretary of
17 Energy and appropriate Federal agencies and inter-
18 ested stakeholders in the public, private and non-
19 profit sectors, shall study and report to Congress on
20 the benefits of and barriers to the widespread use of
21 a potentially new class of vehicles known as city cars
22 with performance capability that exceeds that of low
23 speed vehicles but is less than that of passenger ve-
24 hicles, and which may be battery electric, fuel cell
25 electric, or plug-in hybrid electric vehicles. Such

1 study shall examine the benefits and issues associ-
2 ated with limiting city cars to a maximum speed of
3 35 mph, 45 mph, 55 mph, or any other maximum
4 speed, and make a recommendation regarding max-
5 imum speed.

6 (2) AUTHORIZATION OF APPROPRIATIONS.—

7 Such sums as may be necessary are authorized to be
8 appropriated to carry out this subsection.

9 (b) DEFINITIONS.—In this section—

10 (1) NONROAD VEHICLE.—The term “nonroad
11 vehicle” has the meaning given that term in section
12 216 of the Clean Air Act (42 U.S.C. 7550), or vehi-
13 cles of the same classification that are fully or par-
14 tially powered by an electric motor powered by a fuel
15 cell, a battery, or an off-board source of electricity.

16 (2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The
17 term “plug-in electric drive vehicle” means a means
18 a light-duty, medium-duty, or heavy-duty on-road or
19 nonroad battery electric, hybrid or fuel cell vehicle
20 that can be recharged from an external electricity
21 source for motive power.

22 (3) PLUG-IN HYBRID ELECTRIC VEHICLE.—The
23 term “plug-in hybrid electric vehicle” means a light-
24 duty, medium-duty, or heavy-duty on-road or

1 nonroad vehicle that is propelled by any combination
2 of—

3 (A) an electric motor and on-board, re-
4 chargeable energy storage system capable of op-
5 erating the vehicle in intermittent or continuous
6 all-electric mode and which is rechargeable
7 using an off-board source of electricity; and

8 (B) an internal combustion engine or heat
9 engine using any combustible fuel.

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