

110TH CONGRESS  
1ST SESSION

# H. R. 3239

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

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## 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

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## 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,*

3 **SECTION 1. ADVANCED BATTERY LOAN GUARANTEE PRO-**  
4 **GRAM.**

5 (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
6 of Energy shall establish a program to provide guarantees  
7 of loans by private institutions for the construction of fa-  
8 cilities for the manufacture of advanced vehicle batteries  
9 and battery systems that are developed and produced in

1 the United States, including advanced lithium ion bat-  
2 teries and hybrid electrical system and component manu-  
3 facturers and software designers.

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

6 (1) without a loan guarantee, credit is not  
7 available to the applicant under reasonable terms or  
8 conditions sufficient to finance the construction of a  
9 facility described in subsection (a);

10 (2) the prospective earning power of the appli-  
11 cant and the character and value of the security  
12 pledged provide a reasonable assurance of repayment  
13 of the loan to be guaranteed in accordance with the  
14 terms of the loan; and

15 (3) the loan bears interest at a rate determined  
16 by the Secretary to be reasonable, taking into ac-  
17 count the current average yield on outstanding obli-  
18 gations of the United States with remaining periods  
19 of maturity comparable to the maturity of the loan.

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

23 (1) meet all applicable Federal and State per-  
24 mitting requirements;

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

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

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

5           (e) TERMS AND CONDITIONS.—The loan agreement  
6 for a loan guaranteed under subsection (a) shall provide  
7 that no provision of the loan agreement may be amended  
8 or waived without the consent of the Secretary.

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

15          (g) GUARANTEE FEE.—The recipient of a loan guar-  
16 antee under subsection (a) shall pay the Secretary an  
17 amount determined by the Secretary to be sufficient to  
18 cover the administrative costs of the Secretary relating to  
19 the loan guarantee.

20          (h) FULL FAITH AND CREDIT.—The full faith and  
21 credit of the United States is pledged to the payment of  
22 all guarantees made under this section. Any such guar-  
23 antee made by the Secretary shall be conclusive evidence  
24 of the eligibility of the loan for the guarantee with respect  
25 to principal and interest. The validity of the guarantee

1 shall be incontestable in the hands of a holder of the guar-  
2 anteed loan.

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

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

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

14 **SEC. 2. DOMESTIC MANUFACTURING CONVERSION GRANT**  
15 **PROGRAM.**

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

18 (1) in subsection (a)—

19 (A) by inserting “and components thereof”  
20 after “sales of efficient hybrid and advanced  
21 diesel vehicles”;

22 (B) by inserting “and hybrid component  
23 manufacturers” after “grants to automobile  
24 manufacturers”;

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

3 (D) by inserting “and suppliers” after  
4 “automobile manufacturers”; and

5 (E) by adding at the end the following:  
6 “Priority shall be given to the refurbishment or  
7 retooling of manufacturing facilities that have  
8 recently ceased operation or will cease operation  
9 in the near future.”; and

10 (2) by striking subsection (b) and inserting the  
11 following:

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

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

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

23 (a) PLUG-IN ELECTRIC DRIVE VEHICLE PRO-  
24 GRAM.—

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

12          (2) ADMINISTRATION.—The Secretary shall es-  
13          tablish requirements for applications for grants  
14          under this section, including reporting of data to be  
15          summarized for dissemination to the Department,  
16          other grantees, and the public, including vehicle and  
17          component performance and vehicle and component  
18          life cycle costs.

19          (3) SELECTION CRITERIA.—

20                (A) PRIORITY.—When making awards  
21                under this subsection, the Secretary shall give  
22                priority consideration to applications that en-  
23                courage early widespread utilization of such ve-  
24                hicles and are likely to make a significant con-

1           tribution to the advancement of the production  
2           of such vehicles in the United States.

3           (B) SCOPE OF PROGRAMS.—When making  
4           awards under this subsection, the Secretary  
5           shall ensure that the programs will maximize  
6           diversity in applications, manufacturers, end-  
7           uses and vehicle control systems.

8           (4) AUTHORIZATIONS OF APPROPRIATIONS.—  
9           There are authorized to be appropriated to the Sec-  
10          retary to carry out the program under this sub-  
11          section, such sums as may be necessary.

12          (5) CERTAIN APPLICANTS.—A battery manufac-  
13          turer that proposes to supply to an applicant for a  
14          grant under this section a battery with a capacity of  
15          greater than 1 kilowatt-hour for use in a plug-in  
16          electric drive vehicle shall—

17                 (A) ensure that the applicant includes in  
18                 the application a description of the price of the  
19                 battery per kilowatt hour;

20                 (B) on approval by the Secretary of the  
21                 application, publish, or permit the Secretary to  
22                 publish, the price described in subparagraph  
23                 (A); and

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

4           (b) ELECTRIC DRIVE EDUCATION PROGRAM.—

5           (1) IN GENERAL.—The Secretary shall develop  
6           a nationwide electric drive transportation education  
7           program under which the Secretary shall provide—

8           (A) teaching materials to secondary schools  
9           and high schools; and

10          (B) assistance for programs relating to  
11          electric drive system and component engineer-  
12          ing to institutions of higher education.

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

19          (3) ENGINEERS.—In carrying out the program  
20          established under paragraph (1), the Secretary shall  
21          provide financial assistance to institutions of higher  
22          education to create new, or support existing, degree  
23          programs to ensure the availability of trained elec-  
24          trical and mechanical engineers with the skills nec-  
25          essary for the advancement of—

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

2 (B) other forms of electric drive vehicles.

3 (4) AUTHORIZATION OF APPROPRIATIONS.—

4 There are authorized to be appropriated to the Sec-  
5 retary to carry out this subsection such sums as may  
6 be necessary.

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

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

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

20 (c) PILOT PROGRAMS.—The Secretary shall establish  
21 during the first 6 months of 2008, with other govern-  
22 mental entities, no less than 5 separate pilot programs to  
23 convert at least 1000 vehicles in each program to plug-  
24 hybrid electric vehicles.

1 (d) FEDERAL CONTRIBUTION.—The Department of  
2 Energy shall contribute up to 50 percent of the cost of  
3 conversion modules.

4 (e) INSTALLATION.—Installations of electricity stor-  
5 age devices shall be undertaken by trained and certified  
6 mechanics.

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

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

13 **SEC. 5. INCENTIVE FOR FEDERAL AND STATE FLEETS FOR**  
14 **MEDIUM AND HEAVY DUTY HYBRIDS.**

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

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

21 (2) by redesignating paragraphs (11), (12),  
22 (13), and (14) as paragraphs (12), (14), (15), and  
23 (16), respectively;

24 (3) by inserting after paragraph (10) the fol-  
25 lowing new paragraph:

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

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

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

10                   “(A) in the case of a medium duty vehicle,  
11                   has a gross vehicle weight rating of more than  
12                   8,500 pounds but not more than 14,000  
13                   pounds; and

14                   “(B) in the case of a heavy duty vehicle,  
15                   has a gross vehicle weight rating of more than  
16                   14,000 pounds;”.

17 **SEC. 6. INCLUSION OF ELECTRIC DRIVE IN ENERGY POLICY**

18 **ACT OF 1992.**

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

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

23           (2) by adding at the end of subsection (a) the  
24           following:

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

4           “(A) a hybrid electric vehicle;

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

6           “(C) a fuel cell electric vehicle;

7           “(D) a neighborhood electric vehicle; or

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

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

12       “(e) DEFINITIONS.—In this section:

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

19           “(2) HYBRID ELECTRIC VEHICLE.—The term  
20 ‘hybrid electric vehicle’ means a new qualified hybrid  
21 motor vehicle (as defined in section 30B(d)(3) of the  
22 Internal Revenue Code of 1986).

23           “(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC,  
24 HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC  
25 VEHICLE.—The term ‘medium-duty or heavy-duty

1 electric, hybrid electric, or plug-in hybrid electric ve-  
2 hicle’ is an electric, hybrid electric, or plug-in hybrid  
3 electric motor vehicle greater than 8,501 pounds  
4 gross vehicle rating.

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

13 “(5) PLUG-IN HYBRID ELECTRIC VEHICLE.—  
14 The term ‘plug-in hybrid electric vehicle’ means a  
15 light-duty, medium-duty, or heavy-duty on-road or  
16 nonroad vehicle that is propelled by any combination  
17 of—

18 “(A) an electric motor and on-board, re-  
19 chargeable energy storage system capable of op-  
20 erating the vehicle in intermittent or continuous  
21 all-electric mode and which is rechargeable  
22 using an off-board source of electricity; and

23 “(B) an internal combustion engine or  
24 heat engine using any combustible fuel.

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

5 **SEC. 7. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION**  
6 **DEPLOYMENT PROGRAM.**

7       (a) REVOLVING LOAN PROGRAM.—

8           (1) IN GENERAL.—The Secretary shall establish  
9 a revolving loan program to provide loans to eligible  
10 entities for the conduct of qualified electric transpor-  
11 tation projects.

12           (2) CRITERIA.—The Secretary shall establish  
13 criteria for the provision of loans under this sub-  
14 section.

15       (b) MARKET ASSESSMENT AND ELECTRICITY USAGE  
16 PROGRAM.—

17           (1) IN GENERAL.—The Administrator of the  
18 Environmental Protection Agency, in consultation  
19 with the Secretary and private industry, shall carry  
20 out a program—

21                   (A) to inventory and analyze existing elec-  
22 tric drive transportation technologies and hy-  
23 brid technologies and markets; and

24                   (B) to identify and implement methods of  
25 removing barriers for existing and emerging ap-

1           plications of electric drive transportation tech-  
2           nologies and hybrid transportation technologies.

3           (2) ELECTRICITY USAGE.—The Secretary, in  
4           consultation with the Administrator of the Environ-  
5           mental Protection Agency and private industry, shall  
6           carry out a program—

7                   (A) to develop systems and processes—

8                           (i) to enable plug-in electric vehicles  
9                           to enhance the availability of emergency  
10                           back-up power for consumers; and

11                           (ii) to study and demonstrate the po-  
12                           tential value to the electric grid of using  
13                           the energy stored in the on-board storage  
14                           systems to improve the efficiency of the  
15                           grid generation system; and

16                   (B) to work with utilities and other inter-  
17                   ested stakeholders to study and demonstrate  
18                   the implications of the introduction of plug-in  
19                   electric vehicles and other types of electric  
20                   transportation on the production of electricity  
21                   from renewable resources.

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

23           In carrying out the program under paragraph (2),  
24           the Secretary shall provide grants to assist eligible  
25           public and private electric utilities to conduct pro-

1       grams or activities to encourage owners of electric  
2       drive transportation technologies—

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

4               (B) to have the load managed by the util-  
5       ity.

6       (c) DEFINITION OF QUALIFIED ELECTRIC TRANS-  
7       PORTATION PROJECT.—In this section, the term “quali-  
8       fied electric transportation project” includes a project re-  
9       lating to—

10           (1) ship-side or shore-side electrification for  
11       vessels;

12           (2) truck-stop electrification;

13           (3) electric truck refrigeration units;

14           (4) battery-powered auxiliary power units for  
15       trucks;

16           (5) electric airport ground support equipment;

17           (6) electric material/cargo handling equipment;

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

19           (8) any distribution upgrades needed to supply  
20       electricity to the qualified electric transportation  
21       projects; and

22           (9) any ancillary infrastructure, including panel  
23       upgrades, battery chargers, in-situ transformer, and  
24       trenching.

1 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to carry this section such sums as may be  
3 necessary.

4 **SEC. 8. STUDYING THE BENEFITS OF PLUG-IN HYBRID**  
5 **ELECTRIC DRIVE VEHICLES AND ELECTRIC**  
6 **DRIVE TRANSPORTATION.**

7 (a) STUDY.—

8 (1) CITY CARS.—Not later than 1 year after the  
9 date of enactment of this section, the Secretary of  
10 Transportation in consultation with the Secretary of  
11 Energy and appropriate Federal agencies and inter-  
12 ested stakeholders in the public, private and non-  
13 profit sectors, shall study and report to Congress on  
14 the benefits of and barriers to the widespread use of  
15 a potentially new class of vehicles known as city cars  
16 with performance capability that exceeds that of low  
17 speed vehicles but is less than that of passenger ve-  
18 hicles, and which may be battery electric, fuel cell  
19 electric, or plug-in hybrid electric vehicles. Such  
20 study shall examine the benefits and issues associ-  
21 ated with limiting city cars to a maximum speed of  
22 35 mph, 45 mph, 55 mph, or any other maximum  
23 speed, and make a recommendation regarding max-  
24 imum speed.

1           (2) AUTHORIZATION OF APPROPRIATIONS.—

2           Such sums as may be necessary are authorized to be  
3           appropriated to carry out this subsection.

4           (b) DEFINITIONS.—In this section—

5           (1) NONROAD VEHICLE.—The term “nonroad  
6           vehicle” has the meaning given that term in section  
7           216 of the Clean Air Act (42 U.S.C. 7550), or vehi-  
8           cles of the same classification that are fully or par-  
9           tially powered by an electric motor powered by a fuel  
10          cell, a battery, or an off-board source of electricity.

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

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

22                  (A) an electric motor and on-board, re-  
23                  chargeable energy storage system capable of op-  
24                  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 heat  
4 engine using any combustible fuel.

○