

## Calendar No. 623

111TH CONGRESS  
2D SESSION**S. 3495****[Report No. 111–336]**

To promote the deployment of plug-in electric drive vehicles, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

JUNE 15, 2010

Mr. DORGAN (for himself, Mr. MERKLEY, Mr. ALEXANDER, and Mrs. MURRAY) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

SEPTEMBER 28, 2010

Reported by Mr. BINGAMAN, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

**A BILL**

To promote the deployment of plug-in electric drive vehicles,  
and for other purposes.

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 “Promoting Electric Ve-  
5       hicles Act of 2010”.

1 **SEC. 2. FINDINGS.**

2 Congress finds that—

3 (1) the United States is the largest consumer of  
4 petroleum in the world, consuming 19,500,000 bar-  
5rels per day of petroleum products during 2008;

6 (2) high and volatile international oil prices rep-  
7resent a significant and ongoing threat to the eco-  
8nomic and national security of the United States;

9 (3) many of the nations on which the United  
10 States relies for petroleum supplies or that signifi-  
11cantly affect the world petroleum market share nei-  
12ther the national interest nor the values of the  
13 United States;

14 (4) the United States imports more than 50  
15 percent of the petroleum needs of the country each  
16 day;

17 (5) in 2008, the net deficit of the United States  
18 in petroleum trade amounted to more than  
19 \$380,000,000,000, or nearly 60 percent of the total  
20 trade deficit;

21 (6) the transportation sector of the United  
22 States accounts for over  $\frac{2}{3}$  of total national petro-  
23leum consumption and is 94 percent reliant on pe-  
24troleum;

25 (7) the electrification of the transportation sec-  
26tor represents a direct pathway to significant reduce-

tion in petroleum dependence, because passenger cars and light trucks account for more than 60 percent of the transportation petroleum demand and more than 40 percent of total petroleum demand in the United States;

(8) the electrification of the transportation sector promotes national energy security because the electric power sector uses a diverse range of domestic electricity generation sources;

(9) electric drive vehicles, when running on electric power, produce no tailpipe emissions;

(10) the deployment of 700,000 plug-in electric drive vehicles would result in a petroleum savings of approximately 10,000,000 barrels per year compared to the annual petroleum consumption as of the date of enactment of this Act;

(11) in 2030, the United States could feasibly deploy more than 100,000,000 plug-in electric drive vehicles, which would result in a petroleum savings of more than 1,000,000,000 barrels of petroleum per year and greenhouse gas reductions of over 300,000,000 tons of carbon dioxide compared to the annual petroleum consumption and greenhouse gas emissions as of the date of enactment of this Act; and

(12) a targeted deployment program for plug-in electric drive vehicles that is focused on competitively selected deployment communities—

(A) is a critical component of a comprehensive effort to speed plug-in electric drive vehicle penetration rates;

(B) will contribute to the larger national effort to deploy plug-in electric drive vehicles;

(C) will inform best practices for the wide-scale deployment of plug-in electric drive vehicles; and

(D) will substantially reduce the oil consumption of the United States.

### **SEC. 3. DEFINITIONS.**

In this Act:

(1) **AGENCY.**—The term “agency” has the meaning given the term “Executive agency” in section 105 of title 5, United States Code.

(2) **CHARGING INFRASTRUCTURE.**—The term “charging infrastructure” means any property (not including a building or the structural components of a building) if the property is used for the recharging of motor vehicles propelled by electricity, including electrical panel upgrades, wiring, conduit, trenching, pedestals, and related equipment.

1           ~~(3) COMMITTEE.—The term “Committee”~~  
 2           means the Plug-in Electric Drive Vehicle Technical  
 3           Advisory Committee established by section 304.

4           ~~(4) DEPLOYMENT COMMUNITY.—The term “de-~~  
 5           ~~ployment community”~~ means a community selected  
 6           by the Secretary to be part of the targeted plug-in  
 7           electric drive vehicles deployment communities pro-  
 8           gram under section 106.

9           ~~(5) ELECTRIC UTILITY.—The term “electric~~  
 10          ~~utility”~~ has the meaning given the term in section  
 11          ~~3~~ of the Public Utility Regulatory Policies Act of  
 12          ~~1978 (16 U.S.C. 2602).~~

13          ~~(6) FEDERAL-AID SYSTEM OF HIGHWAYS.—The~~  
 14          ~~term “Federal-aid system of highways”~~ means a  
 15          highway system described in section 103 of title 23,  
 16          United States Code.

17          ~~(7) PLUG-IN ELECTRIC DRIVE VEHICLE.—~~

18                 ~~(A) IN GENERAL.—The term “plug-in elec-~~  
 19                 ~~tric drive vehicle”~~ has the meaning given the  
 20                 term in section 131(a)(5) of the Energy Inde-  
 21                 pendence and Security Act of 2007 (42 U.S.C.  
 22                 17011(a)(5)).

23                 ~~(B) INCLUSIONS.—The term “plug-in elec-~~  
 24                 ~~tric drive vehicle”~~ includes—

(i) a low speed plug-in electric drive vehicles that meet the Federal Motor Vehicle Safety Standards described in section 571.500 of title 49, Code of Federal Regulations (or successor regulations); and

(ii) any other motor vehicles that can be recharged from an external source of motive power and that is authorized to travel on the Federal-aid system of highways.

(8) PRIZE.—The term “Prize” means the Advanced Batteries for Tomorrow Prize established by section 202.

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

(10) TASK FORCE.—The term “Task Force” means the Plug-in Electric Drive Vehicle Inter-agency Task Force established by section 305.

## **TITLE I—NATIONAL PLUG-IN ELECTRIC DRIVE VEHICLE DEPLOYMENT PROGRAM.**

### **SEC. 101. NATIONAL PLUG-IN ELECTRIC DRIVE VEHICLE DEPLOYMENT PROGRAM.**

(a) IN GENERAL.—There is established within the Department of Energy a national plug-in electric drive ve-

1 hicle deployment program for the purpose of assisting in  
2 the deployment of plug-in electric drive vehicles.

3 (b) GOALS.—The goals of the national program de-  
4 scribed in subsection (a) include—

5 (1) the reduction and displacement of petro-  
6 leum use by accelerating the deployment of plug-in  
7 electric drive vehicles in the United States;

8 (2) the reduction of greenhouse gas emissions  
9 by accelerating the deployment of plug-in electric  
10 drive vehicles in the United States;

11 (3) the facilitation of the rapid deployment of  
12 plug-in electric drive vehicles;

13 (4) the achievement of significant market pene-  
14 trations by plug-in electric drive vehicles nationally;

15 (5) the establishment of models for the rapid  
16 deployment of plug-in electric drive vehicles nation-  
17 ally, including models for the deployment of residen-  
18 tial, private, and publicly available charging infra-  
19 structure;

20 (6) the increase of consumer knowledge and ac-  
21 ceptance of plug-in electric drive vehicles;

22 (7) the encouragement of the innovation and in-  
23 vestment necessary to achieve mass market deploy-  
24 ment of plug-in electric drive vehicles;

1           (8) the facilitation of the integration of plug-in  
2       electric drive vehicles into electricity distribution sys-  
3       tems and the larger electric grid while maintaining  
4       grid system performance and reliability;

5           (9) the provision of technical assistance to com-  
6       munities across the United States to prepare for  
7       plug-in electric drive vehicles; and

8           (10) the support of workforce training across  
9       the United States relating to plug-in electric drive  
10      vehicles.

11      (c) DUTIES.—In carrying out this title, the Secretary  
12      shall—

13           (1) provide technical assistance to State, local,  
14      and tribal governments that want to create deploy-  
15      ment programs for plug-in electric drive vehicles in  
16      the communities over which the governments have  
17      jurisdiction;

18           (2) perform national assessments of the poten-  
19      tial deployment of plug-in electric drive vehicles;

20           (3) synthesize and disseminate data from the  
21      deployment of plug-in electric drive vehicles;

22           (4) develop best practices for the successful de-  
23      ployment of plug-in electric drive vehicles;

24           (5) carry out workforce training under section  
25      104;



1           (6) establish the targeted plug-in electric drive  
 2       vehicle deployment communities program under sec-  
 3       tion 106; and

4           (7) in conjunction with the Task Force, make  
 5       recommendations to Congress and the President on  
 6       methods to reduce the barriers to plug-in electric  
 7       drive vehicle deployment.

8       (d) REPORT.—Not later than 1 year after the date  
 9       of enactment of this Act and biennially thereafter, the Sec-  
 10      retary shall submit to the appropriate committees of Con-  
 11      gress a report on the progress made in implementing the  
 12      national program described in subsection (a) that in-  
 13      cludes—

14           (1) a description of the progress made by—

15               (A) the technical assistance program under  
 16               section 103; and

17               (B) the workforce training program under  
 18               section 104; and

19           (2) any updated recommendations of the Sec-  
 20      retary for changes in Federal programs to promote  
 21      the purposes of this title.

22      (e) NATIONAL INFORMATION CLEARINGHOUSE.—  
 23      The Secretary shall make available to the public, in a  
 24      timely manner, information regarding—

1           (1) the cost, performance, usage data, and tech-  
 2           nical data regarding plug-in electric drive vehicles  
 3           and associated infrastructure, including information  
 4           from the deployment communities established under  
 5           section 106; and

6           (2) any other educational information that the  
 7           Secretary determines to be appropriate.

8           (f) AUTHORIZATION OF APPROPRIATIONS.—For the  
 9           period of fiscal years 2011 through 2016, there are au-  
 10          thorized to be appropriated \$100,000,000 to carry out sec-  
 11          tions 101 through 103.

12       **SEC. 102. NATIONAL ASSESSMENT AND PLAN.**

13       (a) IN GENERAL.—Not later than 1 year after the  
 14       date of enactment of this Act, the Secretary shall carry  
 15       out a national assessment and develop a national plan for  
 16       plug-in electric drive vehicle deployment that includes—

17           (1) an assessment of the maximum feasible de-  
 18           ployment of plug-in electric drive vehicles by 2020  
 19           and 2030;

20           (2) the establishment of national goals for mar-  
 21           ket penetration of plug-in electric drive vehicles by  
 22           2020 and 2030;

23           (3) a plan for integrating the successes and  
 24           barriers to deployment identified by the deployment  
 25           communities program established under section 106

1 to prepare communities across the Nation for the  
2 rapid deployment of plug-in electric drive vehicles;

3 (4) a plan for providing technical assistance to  
4 communities across the United States to prepare for  
5 plug-in electric drive vehicle deployment;

6 (5) a plan for quantifying the reduction in pe-  
7 troleum consumption and the net impact on green-  
8 house gas emissions due to the deployment of plug-  
9 in electric drive vehicles; and

10 (6) in consultation with the Task Force, any  
11 recommendations to the President and to Congress  
12 for changes in Federal programs (including laws,  
13 regulations, and guidelines)—

14 (A) to better promote the deployment of  
15 plug-in electric drive vehicles; and

16 (B) to reduce barriers to the deployment of  
17 plug-in electric drive vehicles.

18 (b) UPDATES.—Not later than 2 years after the date  
19 of development of the plan described in subsection (a), and  
20 not less frequently than once every 2 years thereafter, the  
21 Secretary shall use market data and information from the  
22 targeted plug-in electric drive vehicle deployment commu-  
23 nities program established under section 106 and other  
24 relevant data to update the plan to reflect real world mar-  
25 ket conditions.

1 **SEC. 103. TECHNICAL ASSISTANCE.**

2 ~~(a) TECHNICAL ASSISTANCE TO STATE, LOCAL, AND~~  
3 ~~TRIBAL GOVERNMENTS.—~~

4 ~~(1) IN GENERAL.—In carrying out this title, the~~  
5 ~~Secretary shall provide, at the request of the appli-~~  
6 ~~cable elected official, technical assistance to State,~~  
7 ~~local, and tribal governments to assist with the de-~~  
8 ~~ployment of plug-in electric drive vehicles.~~

9 ~~(2) REQUIREMENTS.—The technical assistance~~  
10 ~~described in paragraph (1) shall include—~~

11 ~~(A) training on codes and standards for~~  
12 ~~building and safety inspectors;~~

13 ~~(B) training on best practices for expe-~~  
14 ~~diting permits and inspections;~~

15 ~~(C) education and outreach on frequently~~  
16 ~~asked questions relating to the various types of~~  
17 ~~plug-in electric drive vehicles and associated in-~~  
18 ~~frastructure, battery technology, and disposal;~~  
19 ~~and~~

20 ~~(D) the dissemination of information re-~~  
21 ~~garding best practices for the deployment of~~  
22 ~~plug-in electric drive vehicles.~~

23 ~~(3) PRIORITY.—In providing technical assist-~~  
24 ~~ance under this subsection, the Secretary shall give~~  
25 ~~priority to—~~

26 ~~(A) communities that—~~

1           (i) applied to participate in the pro-  
2           gram described in section 106;

3           (ii) were determined to have strong  
4           applications; and

5           (iii) were not selected to be deploy-  
6           ment communities;

7           (B) communities that demonstrate engaged  
8           partnerships among public and private stake-  
9           holders, including—

10           (i) elected and appointed officials  
11           from each of the participating State, local,  
12           and tribal governments;

13           (ii) all relevant generators and dis-  
14           tributors of electricity;

15           (iii) public utility commissions;

16           (iv) departments of public works and  
17           transportation;

18           (v) owners and operators of property  
19           that will be essential to the deployment of  
20           a sufficient level of publicly available  
21           charging infrastructure (including privately  
22           owned parking lots or structures and com-  
23           mercial entities with public access loca-  
24           tions);

1                   (vi) plug-in electric drive vehicle man-  
2                   ufacturers or retailers;

3                   (vii) third-party providers of charging  
4                   infrastructure or services;

5                   (viii) owners of any major fleet that  
6                   will participate in the program;

7                   (ix) as appropriate, owners and opera-  
8                   tors of regional electric power distribution  
9                   and transmission facilities; and

10                  (x) other existing community coali-  
11                  tions recognized by the Department of En-  
12                  ergy;

13                  (C) communities that have best dem-  
14                  onstrated that the public is likely to embrace  
15                  plug-in electric drive vehicles;

16                  (D) communities that have shown a com-  
17                  mitment to serving diverse consumer charging  
18                  infrastructure needs, including the charging in-  
19                  frastructure needs for single- and multi-family  
20                  housing and public and privately owned com-  
21                  mercial infrastructure; and

22                  (E) communities that have established reg-  
23                  ulatory and educational efforts to facilitate con-  
24                  sumer acceptance of electric drive vehicles, in-  
25                  cluding by—

(i) adopting (or being in the process of adopting) streamlined permitting and inspections processes for residential charging infrastructure; and

(ii) providing customer informational resources, including providing plug-in electric drive information on community or other Web sites.

(4) ~~BEST PRACTICES.~~—The Secretary shall collect and disseminate information to State, local, and tribal governments creating plans to deploy plug-in electric drive vehicles on best practices (including codes and standards) that uses data from—

(A) the program established by section 106; and

(B) the activities carried out by the Task Force.

(5) ~~GRANTS.~~—

(A) ~~IN GENERAL.~~—The Secretary shall establish a program to provide grants to State, local, and tribal governments to assist the governments—

(i) in preparing a community deployment plan under section 106; and

1           (ii) in preparing and implementing  
2           programs that support the deployment of  
3           plug-in electric drive vehicles.

4           (B) APPLICATION.—A State, local, or trib-  
5           al government that seeks to receive a grant  
6           under this paragraph shall submit to the Sec-  
7           retary an application for the grant at such  
8           time, in such form, and containing such infor-  
9           mation as the Secretary may prescribe.

10          (C) USE OF FUNDS.—A State, local, or  
11          tribal government receiving a grant under this  
12          paragraph shall use the funds—

13               (i) to develop a community deploy-  
14               ment plan that shall be submitted to the  
15               next available competition under section  
16               106; and

17               (ii) to carry out activities that encour-  
18               age the deployment of plug-in electric drive  
19               vehicles including—

20                       (I) planning for and installing  
21                       charging infrastructure;

22                       (II) updating building, zoning, or  
23                       parking codes and permitting or in-  
24                       spection processes;



1 (III) workforce training, includ-  
 2 ing the training of permitting offi-  
 3 cials;

4 (IV) public education described  
 5 in the proposed marketing plan;

6 (V) shifting State, local, or tribal  
 7 government fleets to plug-in electric  
 8 drive vehicles, at a rate in excess of  
 9 the existing Federal alternative fleet  
 10 vehicles requirements; and

11 (VI) any other activities, as de-  
 12 termined to be necessary by the Sec-  
 13 retary.

14 (b) UPDATING MODEL BUILDING CODES, PERMIT-  
 15 TING AND INSPECTION PROCESSES, AND ZONING OR  
 16 PARKING RULES.—

17 (1) IN GENERAL.—Not later than 180 days  
 18 after the date of enactment of this Act, the Sec-  
 19 retary shall develop and publish—

20 (A) model building codes for the inclusion  
 21 of separate circuits for charging infrastructure,  
 22 as appropriate, in new construction and major  
 23 renovations of private residences, buildings, or  
 24 other structures that could provide publicly  
 25 available charging infrastructure;

1           ~~(B)~~ model construction permitting or in-  
 2           specification processes that allow for the expedited  
 3           installation of charging infrastructure for pur-  
 4           chasers of plug-in electric drive vehicles (includ-  
 5           ing a permitting process that allows a vehicle  
 6           purchaser to have charging infrastructure in-  
 7           stalled not later than 1 week after a request);  
 8           and

9           ~~(C)~~ model zoning, parking rules, or other  
 10          local ordinances that—

11                 (i) facilitate the installation of pub-  
 12                 licly available charging infrastructure, in-  
 13                 cluding commercial entities that provide  
 14                 public access to infrastructure; and

15                 (ii) allow for access to publicly avail-  
 16                 able charging infrastructure.

17          ~~(2) OPTIONAL ADOPTION.~~—An applicant for se-  
 18          lection for technical assistance under this section or  
 19          as a deployment community under section 106 shall  
 20          not be required to use the model building codes, per-  
 21          mitting and inspection processes, or zoning, parking  
 22          rules, or other ordinances included in the report  
 23          under paragraph (1).

24          ~~(3) SMART GRID INTEGRATION.~~—In developing  
 25          the model codes or ordinances described in para-

1 graph (1); the Secretary shall consider smart grid  
 2 integration.

3 **SEC. 104. WORKFORCE TRAINING.**

4 (a) MAINTENANCE AND SUPPORT.—

5 (1) IN GENERAL.—The Secretary, in consulta-  
 6 tion with the Committee and the Task Force, shall  
 7 award grants to institutions of higher education and  
 8 other qualified training and education institutions  
 9 for the establishment of programs to provide train-  
 10 ing and education for vocational workforce develop-  
 11 ment through centers of excellence.

12 (2) PURPOSE.—Training funded under this  
 13 subsection shall be intended to ensure that the work-  
 14 force has the necessary skills needed to work on and  
 15 maintain plug-in electric drive vehicles and the infra-  
 16 structure required to support plug-in electric drive  
 17 vehicles.

18 (3) SCOPE.—Training funded under this sub-  
 19 section shall include training for—

20 (A) first responders;

21 (B) electricians and contractors who will  
 22 be installing infrastructure;

23 (C) engineers;

24 (D) code inspection officials; and

25 (E) dealers and mechanics.

1       (b) DESIGN.—The Secretary shall award grants to  
 2 institutions of higher education and other qualified train-  
 3 ing and education institutions for the establishment of  
 4 programs to provide training and education in designing  
 5 plug-in electric drive vehicles and associated components  
 6 and infrastructure to ensure that the United States can  
 7 lead the world in this field.

8       (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
 9 authorized to be appropriated \$150,000,000 to carry out  
 10 this section.

11 **SEC. 105. FEDERAL FLEETS.**

12       (a) IN GENERAL.—Electricity consumed by Federal  
 13 agencies to fuel plug-in electric drive vehicles—

14               (1) is an alternative fuel (as defined in section  
 15 301 of the Energy Policy Act of 1992 (42 U.S.C.  
 16 13218)); and

17               (2) shall be accounted for under Federal fleet  
 18 management reporting requirements, not under Fed-  
 19 eral building management reporting requirements.

20       (b) ASSESSMENT AND REPORT.—Not later than 180  
 21 days after the date of enactment of this Act and at the  
 22 completion of the Program, the Federal Energy Manage-  
 23 ment Program and the General Services Administration,  
 24 in consultation with the Task Force, shall complete an as-  
 25 sessment of Federal Government fleets, including the

1 Postal Service and the Department of Defense, and sub-  
 2 mit a report to Congress that describes—

3           (1) for each Federal agency, which types of ve-  
 4 hicles the agency uses that would or would not be  
 5 suitable for near-term and medium-term conversion  
 6 to plug-in electric drive vehicles, taking into account  
 7 the types of vehicles for which plug-in electric drive  
 8 vehicles could provide comparable functionality and  
 9 lifecycle costs;

10           (2) how many plug-in electric drive vehicles  
 11 could be deployed by the Federal Government in 5  
 12 years and in 10 years, assuming that plug-in electric  
 13 drive vehicles are available and are purchased when  
 14 new vehicles are needed or existing vehicles are re-  
 15 placed;

16           (3) the estimated cost to the Federal Govern-  
 17 ment for vehicle purchases under paragraph (2); and

18           (4) a description of any updates to the assess-  
 19 ment and plan based on new market data.

20 (c) INVENTORY AND DATA COLLECTION.—

21           (1) IN GENERAL.—In carrying out the assess-  
 22 ment and report under subsection (b), the Federal  
 23 Energy Management Program, in consultation with  
 24 the General Services Administration, shall—

1           (A) develop an information request for  
2           each agency that operates a fleet of at least 20  
3           motor vehicles; and

4           (B) establish guidelines for each agency to  
5           use in developing a plan to deploy plug-in elec-  
6           tric drive vehicles.

7           (2) AGENCY RESPONSES.—Each agency that  
8           operates a fleet of at least 20 motor vehicles shall—

9           (A) collect information on the vehicle fleet  
10          of the agency in response to the information re-  
11          quest described in paragraph (1); and

12          (B) develop a plan to deploy plug-in elec-  
13          tric drive vehicles.

14          (3) ANALYSIS OF RESPONSES.—The Federal  
15          Energy Management Program shall—

16          (A) analyze the information submitted by  
17          each agency under paragraph (2);

18          (B) approve or suggest amendments to the  
19          plan of each agency to ensure that the plan is  
20          consistent with the goals and requirements of  
21          this Act; and

22          (C) submit a plan to Congress and the  
23          General Services Administration to be used in  
24          developing the pilot program described in sub-  
25          section (e).

1       (d) BUDGET REQUEST.—Each agency of the Federal  
 2 Government shall include plug-in electric drive vehicle pur-  
 3 chases identified in the report under subsection (b) in the  
 4 budget of the agency to be included in the budget of the  
 5 United States Government submitted by the President  
 6 under section 1105 of title 31, United States Code.

7       (e) PILOT PROGRAM TO DEPLOY PLUG-IN ELECTRIC  
 8 DRIVE VEHICLES IN THE FEDERAL FLEET.—

9           (1) IN GENERAL.—The Administrator of Gen-  
 10 eral Services shall acquire plug-in electric drive vehi-  
 11 cles and the requisite charging infrastructure to be  
 12 deployed in a range of locations in the Federal fleet  
 13 during the 5-year period beginning on the date of  
 14 enactment of this Act.

15           (2) DATA COLLECTION.—The Administrator of  
 16 General Services shall collect data regarding—

17           (A) the cost, performance, and use of plug-  
 18 in electric drive vehicles in the Federal fleet;

19           (B) the deployment and integration of  
 20 plug-in electric drive vehicles in the Federal  
 21 fleet; and

22           (C) the contribution of plug-in electric  
 23 drive vehicles in the Federal fleet toward reduc-  
 24 ing the use of fossil fuels and greenhouse gas  
 25 emissions.

1           ~~(3) REPORT.~~—Not later than 6 years after the  
 2           date of enactment of this Act, the Administrator of  
 3           General Services shall submit to the appropriate  
 4           committees of Congress a report that—

5                   (A) describes the status of plug-in electric  
 6                   drive vehicles in the Federal fleet; and

7                   (B) includes an analysis of the data col-  
 8                   lected under this subsection.

9           ~~(4) PUBLIC WEB SITE.~~—The Federal Energy  
 10          Management Program shall maintain and regularly  
 11          update a publicly available Web site that provides in-  
 12          formation on the status of plug-in electric drive vehi-  
 13          cles in the Federal fleet.

14          ~~(f) AUTHORIZATION OF APPROPRIATIONS.~~—There is  
 15          authorized to be appropriated for the Federal Government  
 16          to pay for incremental costs to purchase or lease plug-  
 17          in electric drive vehicles and the requisite charging infra-  
 18          structure for Federal fleets \$25,000,000.

19   **SEC. 106. TARGETED PLUG-IN ELECTRIC DRIVE VEHICLE**  
 20                   **DEPLOYMENT COMMUNITIES PROGRAM.**

21          ~~(a) ESTABLISHMENT.~~—

22                   (1) IN GENERAL.—There is established within  
 23          the national plug-in electric drive deployment pro-  
 24          gram established under section 101 a targeted plug-



1 in electric drive vehicle deployment communities pro-  
 2 gram (referred to in this section as the “Program”).

3 ~~(2) PHASE 1.—~~

4 ~~(A) IN GENERAL.—~~The Secretary shall es-  
 5 tablish a competitive process to select at least  
 6 5 and not more than 15 phase 1 deployment  
 7 communities for the Program.

8 ~~(B) ELIGIBLE ENTITIES.—~~In selecting  
 9 participants for the Program under paragraph  
 10 (1), the Secretary shall only consider applica-  
 11 tions submitted by State, tribal, or local govern-  
 12 ment entities (or groups of State, tribal, or  
 13 local government entities).

14 ~~(C) SELECTION.—~~Not later than 1 year  
 15 after the date of enactment of this Act, the Sec-  
 16 retary shall select the phase 1 deployment com-  
 17 munities under this paragraph.

18 ~~(D) TERMINATION.—~~Phase 1 of the Pro-  
 19 gram shall be carried out for a 5-year period  
 20 beginning on the date funding under this Act is  
 21 first provided to the deployment community.

22 ~~(3) PHASE 2.—~~Not later than 5 years after the  
 23 date of enactment of this Act, the Secretary shall  
 24 submit to Congress a report that analyzes the suc-  
 25 cess of phase 1 and, if, based on the phase 1 anal-

1        ysis, the Secretary determines that a phase II pro-  
 2        gram is warranted, makes recommendations and de-  
 3        scribes a plan for phase II, including—

4                (A) recommendations regarding—

5                        (i) the number of additional deploy-  
 6                        ment communities that should be selected;

7                        (ii) the manner in which criteria for  
 8                        selection should be updated;

9                        (iii) the manner in which incentive  
 10                        structures for phase 2 deployment should  
 11                        be changed; and

12                        (iv) whether other forms of onboard  
 13                        energy storage for electric drive vehicles  
 14                        should be included in phase 2; and

15                (B) a request for appropriations to imple-  
 16                ment phase 2 of the Program.

17        (b) GOALS.—The goals of the Program are—

18                (1) to facilitate the rapid deployment of plug-  
 19        in electric drive vehicles, including—

20                        (A) the deployment of 700,000 plug-in  
 21                        electric drive vehicles in phase 1 in the deploy-  
 22                        ment communities selected under paragraph  
 23                        (2);

1           (B) the near-term achievement of signifi-  
2           cant market penetration in deployment commu-  
3           nities; and

4           (C) the achievement of significant market  
5           penetration nationally;

6           (2) to establish models for the rapid deployment  
7           of plug-in electric drive vehicles nationally, including  
8           for the deployment of residential and publicly avail-  
9           able charging infrastructure;

10          (3) to increase consumer knowledge and accept-  
11          ance of plug-in electric drive vehicles;

12          (4) to encourage the innovation and investment  
13          necessary to achieve mass market deployment of  
14          plug-in electric drive vehicles;

15          (5) to demonstrate the integration of plug-in  
16          electric drive vehicles into electricity distribution sys-  
17          tems and the larger electric grid while maintaining  
18          grid system performance and reliability;

19          (6) to demonstrate protocols and communica-  
20          tion standards that facilitate vehicle integration into  
21          the grid and provide seamless charging for con-  
22          sumers traveling through multiple utility distribution  
23          systems;

24          (7) to investigate differences among deployment  
25          communities and to develop best practices for imple-

menting vehicle electrification in various communities, including best practices for planning for and facilitating the construction of residential and publicly available infrastructure to support plug-in electric drive vehicles;

(8) to collect comprehensive data on the purchase and use of plug-in electric drive vehicles to inform best practices for rapidly deploying plug-in electric drive vehicles in other locations, including for the installation of charging infrastructure; and

(9) to reduce and displace petroleum use and reduce greenhouse gas emissions by accelerating the deployment of plug-in electric drive vehicles in the United States.

(c) PHASE 1 DEPLOYMENT COMMUNITY SELECTION CRITERIA.—

(1) IN GENERAL.—The Secretary shall ensure, to the maximum extent practicable, that selected deployment communities in phase 1 serve as models of deployment for various communities across the United States.

(2) SELECTION.—In selecting communities under this section, the Secretary—

(A) shall ensure, to the maximum extent practicable, that—

1 (i) the combination of selected com-  
2 munities is diverse in population, demo-  
3 graphics, urban and suburban composition,  
4 typical commuting patterns, climate, and  
5 type of utility (including regulated, munic-  
6 ipal, cooperative, and vertically integrated  
7 utilities);

8 (ii) the combination of selected com-  
9 munities is diverse in geographic distribu-  
10 tion, and at least 1 deployment community  
11 is located in each Petroleum Administra-  
12 tion for Defense District;

13 (iii) at least 1 community selected has  
14 a population of less than 125,000;

15 (iv) each deployment community will  
16 achieve significant market penetration; and

17 (v) the deployment communities are  
18 representative of other communities across  
19 the United States;

20 (B) is encouraged to select a combination  
21 of deployment communities that includes mul-  
22 tiple models or approaches for deploying plug-  
23 in electric drive vehicles that the Secretary be-  
24 lieves are reasonably likely to be effective, in-

cluding multiple approaches to the deployment of charging infrastructure; and

~~(C)~~ in addition to the criteria described in subparagraph (A), may give preference to applicants proposing a greater non-Federal cost share.

~~(3)~~ CRITERIA.—

~~(A)~~ IN GENERAL.—Not later than 120 days after the date of enactment of this Act, the Secretary shall publish criteria for the selection of deployment communities that include requirements that applications be submitted by a State, tribal, or local government entity (or groups of State, tribal, or local government entities).

~~(B)~~ APPLICATION REQUIREMENTS.—The criteria published by the Secretary under subparagraph (A) shall include application requirements that, at a minimum, include—

(i) goals for—

(I) the number of plug-in electric drive vehicles to be deployed in the community;

(II) the expected percentage of light-duty vehicle sales that would be

1 sales of plug-in electric drive vehicles;  
2 and

3 (III) the adoption of plug-in elec-  
4 tric drive vehicles (including medium-  
5 or heavy-duty vehicles) in private and  
6 public fleets during the 5-year dura-  
7 tion of the Program;

8 (ii) evidence that—

9 (I) the public is likely to embrace  
10 plug-in electric drive vehicles; and

11 (II) automobile manufacturers  
12 and dealers will be able to provide and  
13 service the targeted number of plug-in  
14 electric drive vehicles in the commu-  
15 nity for the duration of the program;

16 (iii) clearly defined geographic bound-  
17 aries of the proposed deployment area;

18 (iv) a community deployment plan for  
19 the deployment of plug-in electric drive ve-  
20 hicles, charging infrastructure, and serv-  
21 ices in the deployment community;

22 (v) assurances that a majority of the  
23 vehicle deployments anticipated in the plan  
24 will be for personal vehicles authorized to  
25 travel on the United States Federal-aid

1 system of highways, but may also in-  
 2 clude—

3 (I) private or public sector plug-  
 4 in electric drive fleet vehicles;

5 (II) medium- and heavy-duty  
 6 plug-in hybrid vehicles;

7 (III) low speed plug-in electric  
 8 drive vehicles that meet Federal  
 9 Motor Vehicle Safety Standards de-  
 10 scribed in section 571.500 of title 49,  
 11 Code of Federal Regulations; and

12 (IV) any other plug-in electric  
 13 drive vehicle authorized to travel on  
 14 the United States Federal-aid system  
 15 of highways; and

16 (vi) any other merit-based criteria, as  
 17 determined by the Secretary.

18 (4) COMMUNITY DEPLOYMENT PLANS.—Plans  
 19 for the deployment of plug-in electric drive vehicles  
 20 shall include—

21 (A) a proposed level of cost sharing in ac-  
 22 cordance with subsection (d)(2)(C);

23 (B) documentation demonstrating a sub-  
 24 stantial partnership with relevant stakeholders,  
 25 including—



1           (i) a list of stakeholders that in-  
2           cludes—

3               (I) elected and appointed officials  
4               from each of the participating State,  
5               local, and tribal governments;

6               (II) all relevant generators and  
7               distributors of electricity;

8               (III) State utility regulatory au-  
9               thorities;

10              (IV) departments of public works  
11              and transportation;

12              (V) owners and operators of  
13              property that will be essential to the  
14              deployment of a sufficient level of  
15              publicly available charging infrastruc-  
16              ture (including privately owned park-  
17              ing lots or structures and commercial  
18              entities with public access locations);

19              (VI) plug-in electric drive vehicle  
20              manufacturers or retailers;

21              (VII) third-party providers of  
22              residential, private, and publicly avail-  
23              able charging infrastructure or serv-  
24              ices;

- 1                   (VIII) owners of any major fleet  
2                   that will participate in the program;
- 3                   (IX) as appropriate, owners and  
4                   operators of regional electric power  
5                   distribution and transmission facilities;  
6                   and
- 7                   (X) as appropriate, other existing  
8                   community coalitions recognized by  
9                   the Department of Energy;
- 10                  (ii) evidence of the commitment of the  
11                  stakeholders to participate in the partnership;  
12                  ship;
- 13                  (iii) a clear description of the role and  
14                  responsibilities of each stakeholder; and
- 15                  (iv) a plan for continuing the engagement  
16                  and participation of the stakeholders;  
17                  as appropriate, throughout the implementation  
18                  of the deployment plan;
- 19                  (C) a description of the number of plug-in  
20                  electric drive vehicles anticipated to be plug-in  
21                  electric drive personal vehicles and the number  
22                  of plug-in electric drive vehicles anticipated to  
23                  be privately owned fleet or public fleet vehicles;

1           (D) a plan for deploying residential, pri-  
2           vate, and publicly available charging infrastruc-  
3           ture, including—

4               (i) an assessment of the number of  
5               consumers who will have access to private  
6               residential charging infrastructure;

7               (ii) options for accommodating plug-in  
8               electric drive vehicle owners who are not  
9               able to charge vehicles at their place of  
10              residence;

11              (iii) a plan for ensuring that the  
12              charging infrastructure be able to send and  
13              receive the information needed to interact  
14              with the grid and be compatible with smart  
15              grid technologies to the extent feasible;

16              (iv) an estimate of the number and  
17              dispersion of publicly and privately owned  
18              charging stations that will be publicly or  
19              commercially available;

20              (v) an estimate of the quantity of  
21              charging infrastructure that will be pri-  
22              vately funded or located on private prop-  
23              erty; and

24              (vi) a description of equipment to be  
25              deployed, including assurances that, to the

1 maximum extent practicable, equipment to  
2 be deployed will meet open, nonproprietary  
3 standards for connecting to plug-in electric  
4 drive vehicles that are either—

5 (I) commonly accepted by indus-  
6 try at the time the equipment is being  
7 acquired; or

8 (II) meet the standards developed  
9 by the Director of the National Insti-  
10 tute of Standards and Technology  
11 under section 1305 of the Energy  
12 Independence and Security Act of  
13 2007 (42 U.S.C. 17385);

14 (E) a plan for effective marketing of and  
15 consumer education relating to plug-in electric  
16 drive vehicles, charging services, and infrastruc-  
17 ture;

18 (F) descriptions of updated building codes  
19 (or a plan to update building codes before or  
20 during the grant period) to include charging in-  
21 frastructure or dedicated circuits for charging  
22 infrastructure, as appropriate, in new construc-  
23 tion and major renovations;

24 (G) descriptions of updated construction  
25 permitting or inspection processes (or a plan to

1 update construction permitting or inspection  
2 processes) to allow for expedited installation of  
3 charging infrastructure for purchasers of plug-  
4 in electric drive vehicles, including a permitting  
5 process that allows a vehicle purchaser to have  
6 charging infrastructure installed within 1 week;

7 (H) descriptions of updated zoning, park-  
8 ing rules, or other local ordinances as are nec-  
9 essary to facilitate the installation of publicly  
10 available charging infrastructure and to allow  
11 for access to publicly available charging infra-  
12 structure, as appropriate;

13 (I) a plan to ensure that each resident in  
14 a deployment community who purchases and  
15 registers a new plug-in electric drive vehicle  
16 throughout the duration of the deployment com-  
17 munity receives a minimum of \$2,500 in con-  
18 sumer benefits, in addition to any Federal in-  
19 centives, that may include—

20 (i) a rebate of part of the purchase  
21 price of the vehicle;

22 (ii) reductions in sales taxes or reg-  
23 istration fees;

24 (iii) rebates or reductions in the costs  
25 of permitting, purchasing, or installing

1 home plug-in electric drive vehicle charging  
2 infrastructure; and

3 (iv) rebates or reductions in State or  
4 local toll road access charges;

5 (J) additional consumer benefits, such as  
6 preferred parking spaces or single-rider access  
7 to high-occupancy vehicle lanes for plug-in elec-  
8 tric drive vehicles;

9 (K) a proposed plan for making necessary  
10 utility and grid upgrades, including economi-  
11 cally sound information technology upgrades  
12 and a plan for recovering the cost of the up-  
13 grades;

14 (L) a description of utility, grid operator,  
15 or third-party charging service provider, policies  
16 and plans for accommodating the deployment of  
17 plug-in electric drive vehicles, including—

18 (i) rate structures or provisions and  
19 billing protocols for the charging of plug-  
20 in electric drive vehicles;

21 (ii) analysis of potential impacts to  
22 the grid;

23 (iii) plans for using information tech-  
24 nology or third-party aggregators to mini-

mize the effects of charging on peak loads;  
and

(iv) plans for working with smart grid technologies or third-party aggregators for the purposes of smart charging and for allowing 2-way communication and electricity movement;

(M) a deployment timeline;

(N) a plan for monitoring and evaluating the implementation of the plan, including metrics for assessing the success of the deployment and an approach to updating the plan, as appropriate; and

(O) a description of the manner in which any grant funds applied for under subsection (d) will be used and the proposed local cost share for the funds.

~~(d) PHASE 1 APPLICATIONS AND GRANTS.—~~

~~(1) IN GENERAL.—Not later than 120 days after the date of publication by the Secretary of the selection criteria described in subsection (c)(3), any State, tribe, or local government, or group of State, tribe, or local governments may apply to the Secretary to become a deployment community.~~

~~(2) GRANTS.—~~

1           (A) IN GENERAL.—In each application, the  
 2           applicant may request up to \$500,000,000 in fi-  
 3           nancial assistance from the Secretary to fund  
 4           projects in the deployment community.

5           (B) USE OF FUNDS.—Funds provided  
 6           through a grant under this paragraph may be  
 7           used to help implement the plan for the deploy-  
 8           ment of plug-in electric drive vehicles included  
 9           in the application, including—

10           (i) planning for and installing charg-  
 11           ing infrastructure, including offering addi-  
 12           tional incentives as described in subsection  
 13           (c)(4)(I);

14           (ii) updating building codes, zoning or  
 15           parking rules, or permitting or inspection  
 16           processes as described in subparagraphs  
 17           (F), (G), and (H) of subsection (c)(4);

18           (iii) reducing the cost and increasing  
 19           the consumer adoption of plug-in electric  
 20           drive vehicles through incentives as de-  
 21           scribed in subsection (c)(4)(I);

22           (iv) workforce training, including  
 23           training of permitting officials;



1           (v) public education and marketing  
2 described in the proposed marketing plan;  
3 and

4           (vi) shifting State, tribal, or local gov-  
5 ernment fleets to plug-in electric drive ve-  
6 hicles, at a rate in excess of the existing  
7 Federal alternative fleet vehicle require-  
8 ments.

9       ~~(C) COST-SHARING.—~~

10           (i) ~~IN GENERAL.—~~A grant provided  
11 under this paragraph shall be subject to a  
12 minimum non-Federal cost-sharing re-  
13 quirement of 20 percent.

14           (ii) ~~NON-FEDERAL SOURCES.—~~The  
15 Secretary shall—

16               (I) determine the appropriate  
17 cost share for each selected applicant;  
18 and

19               (II) require that not less than 20  
20 percent of the cost of an activity fund-  
21 ed by a grant under this paragraph be  
22 provided by a non-Federal source.

23           (iii) ~~REDUCTION.—~~The Secretary may  
24 reduce or eliminate the cost-sharing re-

1           requirement described in clause (i), as the  
 2           Secretary determines to be necessary.

3           (iv) ~~CALCULATION OF AMOUNT.~~—In  
 4           calculating the amount of the non-Federal  
 5           share under this section, the Secretary—

6           (I) may include allowable costs in  
 7           accordance with the applicable cost  
 8           principles, including—

9                   (aa) cash;

10                   (bb) personnel costs;

11                   (cc) the value of a service,  
 12           other resource, or third party in-  
 13           kind contribution determined in  
 14           accordance with the applicable  
 15           circular of the Office of Manage-  
 16           ment and Budget;

17                   (dd) indirect costs or facili-  
 18           ties and administrative costs; or

19                   (ee) any funds received  
 20           under the power program of the  
 21           Tennessee Valley Authority or  
 22           any Power Marketing Adminis-  
 23           tration (except to the extent that  
 24           such funds are made available

1 under an annual appropriation  
2 Act);

3 (II) shall include contributions  
4 made by State, tribal, or local govern-  
5 ment entities and private entities; and

6 (III) shall not include—

7 (aa) revenues or royalties  
8 from the prospective operation of  
9 an activity beyond the time con-  
10 sidered in the grant;

11 (bb) proceeds from the pro-  
12 spective sale of an asset of an ac-  
13 tivity; or

14 (cc) other appropriated Fed-  
15 eral funds.

16 (v) REPAYMENT OF FEDERAL  
17 SHARE.—The Secretary shall not require  
18 repayment of the Federal share of a cost-  
19 shared activity under this section as a con-  
20 dition of providing a grant.

21 (vi) TITLE TO PROPERTY.—The re-  
22 ceipt of Federal funds under this section  
23 shall not prohibit the purchaser of a vehi-  
24 cle, equipment, or other property from re-  
25 taining sole, permanent title to the vehicle;

1 equipment, or property at the conclusion of  
2 the program.

3 ~~(3) SELECTION.~~—Not later than 120 days after  
4 the application deadline established under paragraph  
5 (1), the Secretary shall announce the names of the  
6 deployment communities selected under this sub-  
7 section.

8 ~~(c) REPORTING REQUIREMENTS.~~—

9 ~~(1) IN GENERAL.~~—The Secretary, in consulta-  
10 tion with the Committee, shall—

11 ~~(A)~~ determine what data will be required  
12 to be collected by participants in deployment  
13 communities and submitted to the Department  
14 to allow for analysis of the deployment commu-  
15 nities; and

16 ~~(B)~~ develop metrics to determine the suc-  
17 cess of the deployment communities.

18 ~~(2) PROVISION OF DATA.~~—As a condition of  
19 participation in the Program, a deployment commu-  
20 nity shall provide any data identified by the Sec-  
21 retary under paragraph (1).

22 ~~(3) REPORTS.~~—Not later than 3 years after the  
23 date of enactment of this Act and again after the  
24 completion of the Program, the Secretary shall sub-  
25 mit to Congress a report that contains—

- 1                   (A) a description of the status of—
- 2                   (i) the deployment communities and
- 3                   the implementation of the deployment plan
- 4                   of each deployment community;
- 5                   (ii) the rate of vehicle manufacturing
- 6                   deployment and market penetration of
- 7                   plug-in electric drive vehicles; and
- 8                   (iii) the deployment of residential and
- 9                   publicly available infrastructure;
- 10                  (B) a description of the challenges experi-
- 11                  enced and lessons learned from the program to
- 12                  date, including the activities described in sub-
- 13                  paragraph (A); and
- 14                  (C) an analysis of the data collected under
- 15                  this subsection.
- 16                  (f) PROPRIETARY INFORMATION.—The Secretary
- 17                  shall, as appropriate, provide for the protection of propri-
- 18                  etary information and intellectual property rights.
- 19                  (g) AUTHORIZATION OF APPROPRIATIONS.—There is
- 20                  authorized to be appropriated to carry out this section
- 21                  \$4,000,000,000.
- 22                  (h) CONFORMING AMENDMENT.—Section 166(b)(5)
- 23                  of title 23, United States Code, is amended—

1           (1) in subparagraph (A), by striking “Before  
2           September 30, 2009, the State” and inserting “The  
3           State”; and

4           (2) in subparagraph (B), by striking “Before  
5           September 30, 2009, the State” and inserting “The  
6           State”.

## 7           **TITLE II—RESEARCH AND** 8           **DEVELOPMENT**

### 9   **SEC. 201. RESEARCH AND DEVELOPMENT PROGRAM.**

#### 10   (a) RESEARCH AND DEVELOPMENT PROGRAM.—

11           (1) IN GENERAL.—The Secretary, in consulta-  
12           tion with the Committee, shall establish a program  
13           to fund research and development in advanced bat-  
14           teries, plug-in electric drive vehicle components,  
15           plug-in electric drive infrastructure, and other tech-  
16           nologies supporting the development, manufacture,  
17           and deployment of plug-in electric drive vehicles and  
18           charging infrastructure.

19           (2) USE OF FUNDS.—The program may include  
20           funding for—

21                   (A) the development of low-cost, smart-  
22                   charging and vehicle-to-grid connectivity tech-  
23                   nology;

1           ~~(B)~~ the benchmarking and assessment of  
 2           open software systems using nationally estab-  
 3           lished evaluation criteria; and

4           ~~(C)~~ new technologies in electricity storage  
 5           for vehicles.

6           ~~(3)~~ REPORT.—Not later than 4 years after the  
 7           date of enactment of this Act, the Secretary shall  
 8           submit to Congress a report describing the status of  
 9           the program described in paragraph ~~(1)~~.

10       ~~(b)~~ SECONDARY USE APPLICATIONS PROGRAM.—

11           ~~(1)~~ IN GENERAL.—The Secretary, in consulta-  
 12           tion with the Committee, shall carry out a research,  
 13           development, and demonstration program that builds  
 14           upon any work carried out under section 915 of the  
 15           Energy Policy Act of 2005 (42 U.S.C. 16195) and—

16           ~~(A)~~ identifies possible uses of a vehicle bat-  
 17           tery after the useful life of the battery in a ve-  
 18           hicle has been exhausted;

19           ~~(B)~~ assesses the potential for markets for  
 20           uses described in subparagraph ~~(A)~~ to develop,  
 21           as well as any barriers to the development of  
 22           the markets; and

23           ~~(C)~~ identifies the potential uses of a vehicle  
 24           battery—

1                   (i) with the most promise for market  
2                   development; and

3                   (ii) for which market development  
4                   would be aided by a demonstration project.

5           (2) REPORT.—Not later than 2 years after the  
6           date of enactment of this Act, the Secretary shall  
7           submit to the appropriate committees of Congress  
8           an initial report on the findings of the program de-  
9           scribed in paragraph (1), including recommendations  
10          for stationary energy storage and other potential ap-  
11          plications for batteries used in plug-in electric drive  
12          vehicles.

13          (c) SECONDARY USE DEMONSTRATION PROJECTS.—

14               (1) IN GENERAL.—Based on the results of the  
15               program described in subsection (b), the Secretary,  
16               in consultation with the Committee, shall develop  
17               guidelines for projects that demonstrate the sec-  
18               ondary uses of vehicle batteries.

19               (2) PUBLICATION OF GUIDELINES.—Not later  
20               than 30 months after the date of enactment of this  
21               Act, the Secretary shall—

22                   (A) publish the guidelines described in  
23                   paragraph (1); and

24                   (B) solicit applications for funding for  
25                   demonstration projects.



1           ~~(3) GRANT PROGRAM.~~—Not later than 38  
 2           months after the date of enactment of this Act, the  
 3           Secretary shall select proposals for grant funding  
 4           under this section, based on an assessment of which  
 5           proposals are mostly likely to contribute to the devel-  
 6           opment of a secondary market for batteries.

7           ~~(d) MATERIALS RECYCLING STUDY.~~—

8           ~~(1) IN GENERAL.~~—The Secretary, in consulta-  
 9           tion with the Committee, shall carry out a study on  
 10          the recycling of materials from plug-in electric drive  
 11          vehicles and the batteries used in plug-in electric  
 12          drive vehicles.

13          ~~(2) REPORT.~~—Not later than 2 years after the  
 14          date of enactment of this Act, the Secretary shall  
 15          submit to the appropriate committees of Congress a  
 16          report on the findings of the study described in  
 17          paragraph (1).

18          ~~(e) AUTHORIZATION OF APPROPRIATIONS.~~—There is  
 19          authorized to be appropriated to carry out this section  
 20          \$1,535,000,000, including—

21                 ~~(1) \$1,500,000,000~~ for use in conducting the  
 22          program described in subsection (a) for fiscal years  
 23          2011 through 2020;

1           (2) \$5,000,000 for use in conducting the pro-  
 2           gram described in subsection (b) for fiscal years  
 3           2011 through 2016;

4           (3) \$25,000,000 for use in providing grants de-  
 5           scribed in subsection (c) for fiscal years 2011  
 6           through 2020; and

7           (4) \$5,000,000 for use in conducting the study  
 8           described in subsection (d) for fiscal years 2011  
 9           through 2013.

10 **SEC. 202. ADVANCED BATTERIES FOR TOMORROW PRIZE.**

11           (a) IN GENERAL.—Not later than 1 year after the  
 12           date of enactment of this Act, as part of the program de-  
 13           scribed in section 1008 of the Energy Policy Act of 2005  
 14           (42 U.S.C. 16396), the Secretary shall establish the Ad-  
 15           vanced Batteries for Tomorrow Prize to competitively  
 16           award cash prizes in accordance with this section to ad-  
 17           vance the research, development, demonstration, and com-  
 18           mercial application of a 500-mile vehicle battery.

19           (b) BATTERY SPECIFICATIONS.—

20           (1) IN GENERAL.—To be eligible for the Prize,  
 21           a battery submitted by an entrant shall be—

22                   (A) able to power a plug-in electric drive  
 23                   vehicle authorized to travel on the United  
 24                   States Federal-aid system of highways for at  
 25                   least 500 miles before recharging;

1           ~~(B)~~ of a size that would not be cost-prohib-  
 2           itive or create space constraints, if mass-pro-  
 3           duced; and

4           ~~(C)~~ cost-effective (measured in cost per kil-  
 5           owatt hour), if mass-produced.

6           ~~(2) ADDITIONAL REQUIREMENTS.—~~The Sec-  
 7           retary, in consultation with the Committee, shall es-  
 8           tablish any additional battery specifications that the  
 9           Secretary and the Committee determine to be nec-  
 10          essary.

11          ~~(c) PRIVATE FUNDS.—~~

12           ~~(1) IN GENERAL.—~~Subject to paragraph ~~(2)~~  
 13           and notwithstanding section 3302 of title 31, United  
 14           States Code, the Secretary may accept, retain, and  
 15           use funds contributed by any person, government  
 16           entity, or organization for purposes of carrying out  
 17           this subsection—

18                   ~~(A)~~ without further appropriation; and

19                   ~~(B)~~ without fiscal year limitation.

20           ~~(2) RESTRICTION ON PARTICIPATION.—~~An enti-  
 21           ty providing private funds for the Prize may not  
 22           participate in the competition for the Prize.

23           ~~(d) TECHNICAL REVIEW.—~~The Secretary, in con-  
 24           sultation with the Committee, shall establish a technical  
 25           review committee composed of non-Federal officers to re-

1 view data submitted by Prize entrants under this section  
 2 and determine whether the data meets the prize specifica-  
 3 tions described in subsection (b).

4 (e) THIRD PARTY ADMINISTRATION.—The Secretary  
 5 may select, on a competitive basis, a third party to admin-  
 6 ister awards provided under this section.

7 (f) ELIGIBILITY.—To be eligible for an award under  
 8 this section—

9 (1) in the case of a private entity, the entity  
 10 shall be incorporated in and maintain a primary  
 11 place of business in the United States; and

12 (2) in the case of an individual (whether par-  
 13 ticipating as a single individual or in a group), the  
 14 individual shall be a citizen or lawful permanent  
 15 resident of the United States.

16 (g) AWARD AMOUNTS.—

17 (1) IN GENERAL.—Subject to the availability of  
 18 funds to carry out this section, the amount of the  
 19 Prize shall be \$10,000,000.

20 (2) BREAKTHROUGH ACHIEVEMENT AWARDS.—

21 In addition to the award described in paragraph (1),  
 22 the Secretary, in consultation with the technical re-  
 23 view committee established under subsection (d),  
 24 may award cash prizes, in amounts determined by  
 25 the Secretary, in recognition of breakthrough

1 achievements in research, development, demonstra-  
 2 tion, and commercial application of—

3 (A) activities described in subsection (b);

4 or

5 (B) advances in battery durability, energy  
 6 density, and power density.

7 ~~(h) 500-MILE BATTERY AWARD FUND.—~~

8 (1) ESTABLISHMENT.—There is established in  
 9 the Treasury of the United States a fund to be  
 10 known as the “500-mile Battery Fund” (referred to  
 11 in this section as the “Fund”), to be administered  
 12 by the Secretary, to be available without fiscal year  
 13 limitation and subject to appropriation, to award  
 14 amounts under this section.

15 ~~(2) TRANSFERS TO FUND.—The Fund shall~~  
 16 ~~consist of—~~

17 (A) such amounts as are appropriated to  
 18 the Fund under subsection (i); and

19 (B) such amounts as are described in sub-  
 20 section (e) and that are provided for the Fund.

21 ~~(3) PROHIBITION.—Amounts in the Fund may~~  
 22 ~~not be made available for any purpose other than a~~  
 23 ~~purposes described in subsection (a).~~

24 ~~(4) ANNUAL REPORTS.—~~

1           (A) IN GENERAL.—Not later than 60 days  
2           after the end of each fiscal year beginning with  
3           fiscal year 2012, the Secretary shall submit a  
4           report on the operation of the Fund during the  
5           fiscal year to—

6                   (i) the Committees on Appropriations  
7                   of the House of Representatives and of the  
8                   Senate;

9                   (ii) the Committee on Energy and  
10                  Natural Resources of the Senate; and

11                  (iii) the Committee on Energy and  
12                  Commerce of the House of Representa-  
13                  tives.

14           (B) CONTENTS.—Each report shall in-  
15           clude, for the fiscal year covered by the report,  
16           the following:

17                   (i) A statement of the amounts depos-  
18                   ited into the Fund.

19                   (ii) A description of the expenditures  
20                   made from the Fund for the fiscal year, in-  
21                   cluding the purpose of the expenditures.

22                   (iii) Recommendations for additional  
23                   authorities to fulfill the purpose of the  
24                   Fund.

1                   (iv) A statement of the balance re-  
 2                   maining in the Fund at the end of the fis-  
 3                   eal year.

4                   (5) SEPARATE APPROPRIATIONS ACCOUNT.—  
 5                   Section 1105(a) of title 31, United States Code, is  
 6                   amended—

7                   (A) by redesignating paragraphs (35) and  
 8                   (36) as paragraphs (36) and (37), respectively;  
 9                   (B) by redesignating the second paragraph  
 10                  (33) (relating to obligational authority and out-  
 11                  lays requested for homeland security) as para-  
 12                  graph (35); and

13                  (C) by adding at the end the following:

14                  “(38) a separate statement for the 500-mile  
 15                  Battery Fund established under section 8(h) of the  
 16                  ‘Promoting Electric Vehicles Act of 2010’, which  
 17                  shall include the estimated amount of deposits into  
 18                  the Fund, obligations, and outlays from the Fund.”.

19                  (i) AUTHORIZATION OF APPROPRIATIONS.—There is  
 20                  authorized to be appropriated—

21                  (1) \$10,000,000 to carry out subsection (g)(1);

22                  and

23                  (2) \$1,000,000 to carry out subsection (g)(2).

1 **SEC. 203. STUDY ON THE SUPPLY OF RAW MATERIALS.**

2 (a) IN GENERAL.—The Secretary of the Interior, in  
3 consultation with the Secretary and the Task Force, shall  
4 conduct a study that—

5 (1) identifies the raw materials needed for the  
6 manufacture of plug-in electric drive vehicles; bat-  
7 teries; and other components for plug-in electric  
8 drive vehicles; and for the infrastructure needed to  
9 support plug-in electric drive vehicles;

10 (2) describes the primary or original sources  
11 and known reserves and resources of those raw ma-  
12 terials;

13 (3) assesses, in consultation with the National  
14 Academy of Sciences, the degree of risk to the man-  
15 ufacture, maintenance, deployment, and use of plug-  
16 in electric drive vehicles associated with the supply  
17 of those raw materials; and

18 (4) identifies pathways to securing reliable and  
19 resilient supplies of those raw materials.

20 (b) REPORT.—Not later than 3 years after the date  
21 of enactment of this Act, the Secretary of the Interior  
22 shall submit to Congress a report that describes the re-  
23 sults of the study.

24 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
25 authorized to be appropriated to carry out this subsection  
26 \$1,500,000.



1 **SEC. 204. STUDY ON THE COLLECTION, PRESERVATION,**  
2 **AND ACCESS TO DATA COLLECTED FROM**  
3 **PLUG-IN ELECTRIC DRIVE VEHICLES.**

4 (a) IN GENERAL.—Not later than 90 days after the  
5 date of enactment of this Act, the Secretary, in consulta-  
6 tion with the Committee, shall enter into an agreement  
7 with the National Academy of Sciences under which the  
8 Academy shall conduct a study that—

9 (1) identifies—

10 (A) the data that may be collected from  
11 plug-in electric drive vehicles, including data on  
12 the location, charging patterns, and usage of  
13 plug-in electric drive vehicles;

14 (B) the scientific, economic, commercial,  
15 security, and historic potential of the data de-  
16 scribed in subparagraph (A); and

17 (C) any laws or regulations that relate to  
18 the data described in subparagraph (A); and

19 (2) analyzes and provides recommendations on  
20 matters that include procedures, technologies, and  
21 rules relating to—

22 (A) the collection, storage, and preserva-  
23 tion of the data described in paragraph (1)(A);

24 (B) ownership of the data described in  
25 paragraph (1)(A);

1           ~~(C)~~ access to the data described in para-  
 2           graph ~~(1)~~(A); and

3           ~~(D)~~ informed consent and privacy protec-  
 4           tions for owners and users of plug-in electric  
 5           drive vehicles.

6           ~~(b)~~ REPORT.—Not later than 15 months after the  
 7           date of an agreement between the Secretary and the Acad-  
 8           emy under subsection (a), the National Academy of  
 9           Sciences shall submit to the appropriate committees of  
 10          Congress a report that describes the results of the study  
 11          under subsection (a).

12          ~~(c)~~ AUTHORIZATION OF APPROPRIATIONS.—There is  
 13          authorized to be appropriated to carry out this section  
 14          \$1,000,000.

## 15           **TITLE III—MISCELLANEOUS**

### 16   **SEC. 301. UTILITY PLANNING FOR PLUG-IN ELECTRIC** 17           **DRIVE VEHICLES.**

18          ~~(a)~~ IN GENERAL.—The Public Utility Regulatory  
 19          Policies Act of 1978 (16 U.S.C. 2601 et seq.) is amend-  
 20          ed—

21               ~~(1)~~ in section 111(d) (16 U.S.C. 2621(d)), by  
 22               adding at the end the following:

23               “~~(20)~~ PLUG-IN ELECTRIC DRIVE VEHICLE  
 24               PLANNING.—

1                   “(A) UTILITY PLAN FOR PLUG-IN ELEC-  
2                   TRIC DRIVE VEHICLES.—

3                   “(i) IN GENERAL.—Not later than 2  
4                   years after the date of enactment of this  
5                   paragraph, each electric utility shall de-  
6                   velop a plan to support the use of plug-in  
7                   electric drive vehicles, including medium-  
8                   and heavy-duty hybrid electric vehicles in  
9                   the service area of the electric utility.

10                  “(ii) REQUIREMENTS.—A plan under  
11                  clause (i) shall investigate—

12                   “(I) various levels of potential  
13                   penetration of plug-in electric drive  
14                   vehicles in the utility service area;

15                   “(II) the potential impacts that  
16                   the various levels would have on dis-  
17                   tribution infrastructure and on the  
18                   operation of the transmission grid;  
19                   and

20                   “(III) the role of third parties in  
21                   providing reliable and economical  
22                   charging services.

23                   “(iii) WAIVER.—An electric utility  
24                   that determines that the electric utility will  
25                   have no meaningful penetration of plug-in

1 electric drive vehicles during the 5-year pe-  
 2 riod beginning on the date of enactment of  
 3 this paragraph may petition the Secretary  
 4 to waive clause (i) for 5 years.

5 “(iv) UPDATES.—

6 “(I) IN GENERAL.—Each electric  
 7 utility shall update the plan of the  
 8 electric utility every 5 years.

9 “(II) RESUBMISSION OF WAIV-  
 10 ER.—An electric utility that received a  
 11 waiver under clause (iii) and wants  
 12 the waiver to continue after the expi-  
 13 ration of the waiver shall be required  
 14 to resubmit the waiver.

15 “(v) EXEMPTION.—If the Secretary  
 16 determines that a plan required by a State  
 17 regulatory authority meets the require-  
 18 ments of this paragraph, the Secretary  
 19 may accept that plan and exempt the elec-  
 20 tric utility submitting the plan from the re-  
 21 quirements of clause (i).

22 “(B) SUPPORT REQUIREMENTS.—Each  
 23 State regulatory authority (in the case of each  
 24 electric utility for which the authority has rate-

1 making authority) and each municipal and co-  
2 operative utility shall—

3 “(i) participate in any local plan for  
4 the deployment of recharging infrastruc-  
5 ture in communities located in the foot-  
6 print of the authority or utility;

7 “(ii) require that charging infrastruc-  
8 ture deployed is interoperable with prod-  
9 ucts of all auto manufacturers to the max-  
10 imum extent practicable; and

11 “(iii) consider adopting minimum re-  
12 quirements for deployment of electrical  
13 charging infrastructure and other appro-  
14 priate requirements necessary to support  
15 the use of plug-in electric drive vehicles.

16 “(C) COST RECOVERY.—Each State regu-  
17 latory authority (in the case of each electric  
18 utility for which the authority has ratemaking  
19 authority) and each municipal and cooperative  
20 utility may consider whether, and to what ex-  
21 tent, to allow cost recovery for plans and imple-  
22 mentation of plans.

23 “(D) DETERMINATION.—Not later than 3  
24 years after the date of enactment of this para-  
25 graph, each State regulatory authority (with re-

spect to each electric utility for which the authority has ratemaking authority), and each municipal and cooperative electric utility, shall complete the consideration, and shall make the determination, referred to in subsection (a) with respect to the standard established by this paragraph.”;

(2) in section 112(e) (16 U.S.C. 2622(e))—

(A) in the first sentence, by striking “Each State” and inserting the following:

“(1) IN GENERAL.—Each State”;

(B) in the second sentence, by striking “In the case” and inserting the following:

“(2) SPECIFIC STANDARDS.—

“(A) NET METERING AND FOSSIL FUEL GENERATION EFFICIENCY.—In the case”;

(C) in the third sentence, by striking “In the case” and inserting the following:

“(B) TIME-BASED METERING AND COMMUNICATIONS.—In the case”;

(D) in the fourth sentence—

(i) by striking “In the case” and inserting the following:

“(C) INTERCONNECTION.—In the case”;

and

1                   (ii) by striking “paragraph (15)” and  
 2                   inserting “paragraph (15) of section  
 3                   111(d)”;

4                   (E) in the fifth sentence, by striking “In  
 5                   the case” and inserting the following:

6                   “(D) INTEGRATED RESOURCE PLANNING,  
 7                   RATE DESIGN MODIFICATIONS, SMART GRID IN-  
 8                   VESTMENTS, SMART GRID INFORMATION.—In  
 9                   the case”; and

10                  (F) by adding at the end the following:

11                  “(E) PLUG-IN ELECTRIC DRIVE VEHICLE  
 12                  PLANNING.—In the case of the standards estab-  
 13                  lished by paragraph (20) of section 111(d), the  
 14                  reference contained in this subsection to the  
 15                  date of enactment of this Act shall be deemed  
 16                  to be a reference to the date of enactment of  
 17                  that paragraph.”; and

18                  (3) in section 112(d) (16 U.S.C. 2622(d)), in  
 19                  the matter preceding paragraph (1), by striking  
 20                  “(19)” and inserting “(20)”.

21                  (b) REPORT.—

22                  (1) IN GENERAL.—The Secretary, in consulta-  
 23                  tion with the Technical Advisory Committee, shall  
 24                  convene a group of utility stakeholders, charging in-  
 25                  frastructure providers, third party aggregators, and

1 others, as appropriate, to discuss and determine the  
2 potential models for the technically and logistically  
3 challenging issues involved in using electricity as a  
4 fuel for vehicles, including—

5 (A) accommodation for billing for charging  
6 a plug-in electric drive vehicle, both at home  
7 and at publicly available charging infrastruc-  
8 ture;

9 (B) plans for anticipating vehicle to grid  
10 applications that will allow batteries in cars as  
11 well as banks of batteries to be used for grid  
12 storage, ancillary services provision, and backup  
13 power; and

14 (C) integration of plug-in electric drive ve-  
15 hicles with smart grid, including protocols and  
16 standards, necessary equipment, and informa-  
17 tion technology systems.

18 (2) REPORT.—Not later than 2 years after the  
19 date of enactment of this Act and biennially there-  
20 after, the Secretary shall submit to the appropriate  
21 committees of Congress a report that includes—

22 (A) the issues and model solutions de-  
23 scribed in paragraph (1); and

24 (B) any other issues that the Task Force  
25 and Secretary determine to be appropriate.



1 **SEC. 302. LOAN GUARANTEES FOR ADVANCED BATTERY**  
 2 **PURCHASES FOR USE IN STATIONARY APPLI-**  
 3 **CATIONS.**

4 Subtitle B of title I of the Energy Independence and  
 5 Security Act of 2007 (42 U.S.C. 17011 et seq.) is amend-  
 6 ed by adding at the end the following:

7 **“SEC. 137. LOAN GUARANTEES FOR ADVANCED BATTERY**  
 8 **PURCHASES.**

9 “(a) **DEFINITIONS.**—In this section:

10 “(1) **QUALIFIED AUTOMOTIVE BATTERY.**—The  
 11 term ‘qualified automotive battery’ means a battery  
 12 that—

13 “(A) has at least 4 kilowatt hours of bat-  
 14 tery capacity; and

15 “(B) is designed for use in qualified plug-  
 16 in electric drive motor vehicles but is purchased  
 17 for nonautomotive applications.

18 “(2) **ELIGIBLE ENTITY.**—The term ‘eligible en-  
 19 tity’ means—

20 “(A) an original equipment manufacturer;

21 “(B) an electric utility;

22 “(C) any provider of range extension infra-  
 23 structure; or

24 “(D) any other qualified entity, as deter-  
 25 mined by the Secretary.

26 “(b) **LOAN GUARANTEES.**—

1           “(1) IN GENERAL.—The Secretary shall guar-  
 2           antee loans made to eligible entities for the aggre-  
 3           gate purchase of not less than 200 qualified auto-  
 4           motive batteries in a calendar year that have a total  
 5           minimum power rating of 1 megawatt and use ad-  
 6           vanced battery technology.

7           “(2) RESTRICTION.—As a condition of receiving  
 8           a loan guarantee under this section, an entity pur-  
 9           chasing qualified automotive batteries with loan  
 10          funds guaranteed under this section shall comply  
 11          with the provisions of the Buy American Act (41  
 12          U.S.C. 10a et seq.).

13          “(c) REGULATIONS.—The Secretary shall promulgate  
 14          such regulations as are necessary to carry out this section.

15          “(d) AUTHORIZATION OF APPROPRIATIONS.—There  
 16          is authorized to be appropriated to carry out this section  
 17          \$50,000,000.”.

18   **SEC. 303. PROHIBITION ON DISPOSING OF ADVANCED BAT-**  
 19                                   **TERIES IN LANDFILLS.**

20          An advanced battery from a plug-in electric drive ve-  
 21          hicle shall be disposed of in accordance with the Mercury-  
 22          Containing and Rechargeable Battery Management Act  
 23          (42 U.S.C. 14301 et seq.).

1 **SEC. 304. PLUG-IN ELECTRIC DRIVE VEHICLE TECHNICAL**  
2 **ADVISORY COMMITTEE.**

3 (a) **IN GENERAL.**—There is established the Plug-in  
4 Electric Drive Vehicle Technical Advisory Committee to  
5 advise the Secretary on the programs and activities under  
6 this Act.

7 (b) **MISSION.**—The mission of the Committee shall  
8 be to advise the Secretary on technical matters, includ-  
9 ing—

10 (1) the priorities for research and development;

11 (2) means of accelerating the deployment of  
12 safe, economical, and efficient plug-in electric drive  
13 vehicles for mass market adoption;

14 (3) the development and deployment of charg-  
15 ing infrastructure;

16 (4) the development of uniform codes, stand-  
17 ards, and safety protocols for plug-in electric drive  
18 vehicles and charging infrastructure; and

19 (5) reporting on the competitiveness of the  
20 United States in plug-in electric drive vehicle and in-  
21 frastructure research, manufacturing, and deploy-  
22 ment.

23 (c) **MEMBERSHIP.**—

24 (1) **MEMBERS.**—

1           (A) ~~IN GENERAL.~~—The Committee shall  
 2       consist of not less than ~~12~~, but not more than  
 3       ~~25~~ members.

4           (B) ~~REPRESENTATION.~~—The Secretary  
 5       shall appoint the members to Committee from  
 6       among representatives of—

- 7                     (i) domestic industry;
- 8                     (ii) institutions of higher education;
- 9                     (iii) professional societies;
- 10                    (iv) Federal, State, and local govern-  
 11                    mental agencies (including the National  
 12                    Laboratories); and
- 13                    (v) financial, transportation, labor, en-  
 14                    vironmental, or other appropriate organiza-  
 15                    tions or individuals with direct experience  
 16                    in deploying and marketing plug-in electric  
 17                    drive vehicles, as the Secretary determines  
 18                    to be necessary.

19       (2) ~~TERMS.~~—

20           (A) ~~IN GENERAL.~~—The term of a Com-  
 21       mittee member shall not be longer than ~~3~~ years.

22           (B) ~~STAGGERED TERMS.~~—The Secretary  
 23       may appoint members to the Committee for dif-  
 24       fering term lengths to ensure continuity in the  
 25       functioning of the Committee.

1                   (C) REAPPOINTMENTS.—A member of the  
2                   Committee whose term is expiring may be re-  
3                   appointed.

4                   (3) CHAIRPERSON.—The Committee shall have  
5                   a chairperson, who shall be elected by and from the  
6                   members.

7                   (d) REVIEW.—The Committee shall review and make  
8                   recommendations to the Secretary on the implementation  
9                   of programs and activities under this Act.

10                  (e) RESPONSE.—

11                   (1) IN GENERAL.—The Secretary shall consider  
12                   and may adopt any recommendation of the Com-  
13                   mittee under subsection (c).

14                   (2) BIENNIAL REPORT.—

15                   (A) IN GENERAL.—Not later than 2 years  
16                   after the date of enactment of this Act and  
17                   every 2 years thereafter, the Secretary shall  
18                   submit to the appropriate committees of Con-  
19                   gress a report describing any new recommenda-  
20                   tions of the Committee.

21                   (B) CONTENTS.—The report shall in-  
22                   clude—

23                   (i) a description of the manner in  
24                   which the Secretary has implemented or

1 plans to implement the recommendations  
2 of the Committee; or

3 (ii) an explanation of the reason that  
4 a recommendation of the Committee has  
5 not been implemented.

6 ~~(C) TIMING.~~—The report described in this  
7 paragraph shall be submitted by the Secretary  
8 at the same time the President submits the  
9 budget proposal for the Department of Energy  
10 to Congress.

11 ~~(f) COORDINATION.~~—The Committee shall hold joint  
12 annual meetings with the Hydrogen and Fuel Cell Tech-  
13 nical Advisory Committee established by section 807 of the  
14 Energy Policy Act of 2005 (42 U.S.C. 16156) to help co-  
15 ordinate the work and recommendations of the Commit-  
16 tees.

17 ~~(g) SUPPORT.~~—The Secretary shall provide to the  
18 Committee the resources necessary to carry out this sec-  
19 tion, as determined to be necessary by the Secretary.

20 **SEC. 305. PLUG-IN ELECTRIC DRIVE VEHICLE INTER-**  
21 **AGENCY TASK FORCE.**

22 ~~(a) IN GENERAL.~~—Not later than 120 days after the  
23 date of enactment of this Act, the President shall establish  
24 the Plug-in Electric Drive Vehicle Interagency Task

1 Force, to be chaired by the Secretary and which shall con-  
 2 sist of at least 1 representative from each of—

- 3           (1) the Office of Science and Technology Policy;
- 4           (2) the Council on Environmental Quality;
- 5           (3) the Department of Energy;
- 6           (4) the Department of Transportation;
- 7           (5) the Department of Defense;
- 8           (6) the Department of Commerce (including the
- 9           National Institute of Standards and Technology);
- 10          (7) the Environmental Protection Agency;
- 11          (8) the General Services Administration; and
- 12          (9) any other Federal agencies that the Presi-
- 13          dent determines to be appropriate.

14          (b) MISSION.—The mission of the Task Force shall  
 15 be to ensure awareness, coordination, and integration of  
 16 the activities of the Federal Government relating to plug-  
 17 in electric drive vehicles, including—

- 18           (1) plug-in electric drive vehicle research and
- 19           development (including necessary components);
- 20           (2) the development of widely accepted smart-
- 21           grid standards and protocols for charging infrastruc-
- 22           ture;
- 23           (3) the relationship of plug-in electric drive ve-
- 24           hicle charging practices to electric utility regulation;

1           (4) the relationship of plug-in electric drive ve-  
2           hicle deployment to system reliability and security;

3           (5) the general deployment of plug-in electric  
4           drive vehicles in the Federal, State, and local gov-  
5           ernments and for private use;

6           (6) the development of uniform codes, stand-  
7           ards, and safety protocols for plug-in electric drive  
8           vehicles and charging infrastructure; and

9           (7) the alignment of international plug-in elec-  
10          tric drive vehicle standards.

11        (e) ACTIVITIES.—

12           (1) IN GENERAL.—In carrying out this section,  
13        the Task Force may—

14                   (A) organize workshops and conferences;

15                   (B) issue publications; and

16                   (C) create databases.

17           (2) MANDATORY ACTIVITIES.—In carrying out  
18        this section, the Task Force shall—

19                   (A) foster the exchange of generic, non-  
20           proprietary information and technology among  
21           industry, academia, and the Federal Govern-  
22           ment;

23                   (B) integrate and disseminate technical  
24           and other information made available as a re-



1           sult of the programs and activities under this  
2           Act;

3           ~~(C)~~ support education about plug-in elec-  
4           tric drive vehicles;

5           ~~(D)~~ monitor, analyze, and report on the ef-  
6           fects of plug-in electric drive vehicle deployment  
7           on the environment and public health, including  
8           air emissions from vehicles and electricity gen-  
9           erating units; and

10          ~~(E)~~ review and report on—

11               (i) opportunities to use Federal pro-  
12               grams (including laws, regulations, and  
13               guidelines) to promote the deployment of  
14               plug-in electric drive vehicles; and

15               (ii) any barriers to the deployment of  
16               plug-in electric drive vehicles, including  
17               barriers that are attributable to Federal  
18               programs (including laws, regulations, and  
19               guidelines);

20          ~~(d)~~ AGENCY COOPERATION.—A Federal agency—

21               ~~(1)~~ shall cooperate with the Task Force; and

22               ~~(2)~~ provide, on request of the Task Force, ap-  
23               propriate assistance in carrying out this section, in  
24               accordance with applicable Federal laws (including  
25               regulations);

1 **SECTION 1. SHORT TITLE.**

2       *This Act may be cited as the “Promoting Electric Vehi-*  
3 *cles Act of 2010”.*

4 **SEC. 2. FINDINGS.**

5       *Congress finds that—*

6           *(1) the United States is the largest consumer of*  
7 *petroleum in the world, consuming 19,500,000 barrels*  
8 *per day of petroleum products during 2008;*

9           *(2) high and volatile international oil prices rep-*  
10 *resent a significant and ongoing threat to the eco-*  
11 *nomie and national security of the United States;*

12           *(3) many of the nations on which the United*  
13 *States relies for petroleum supplies or that signifi-*  
14 *cantly affect the world petroleum market share neither*  
15 *the national interest nor the values of the United*  
16 *States;*

17           *(4) the United States imports more than 50 per-*  
18 *cent of the petroleum needs of the country each day;*

19           *(5) in 2008, the net deficit of the United States*  
20 *in petroleum trade amounted to more than*  
21 *\$380,000,000,000, or nearly 60 percent of the total*  
22 *trade deficit;*

23           *(6) the transportation sector of the United States*  
24 *accounts for over  $\frac{2}{3}$  of total national petroleum con-*  
25 *sumption and is 94 percent reliant on petroleum;*

1           (7) *the electrification of the transportation sector*  
2           *represents a direct pathway to significant reduction*  
3           *in petroleum dependence, because passenger cars and*  
4           *light trucks account for more than 60 percent of the*  
5           *transportation petroleum demand and more than 40*  
6           *percent of total petroleum demand in the United*  
7           *States;*

8           (8) *the electrification of the transportation sector*  
9           *promotes national energy security because the electric*  
10          *power sector uses a diverse range of domestic elec-*  
11          *tricity generation sources;*

12          (9) *electric drive vehicles, when running on elec-*  
13          *tric power, produce no tailpipe emissions;*

14          (10) *the deployment of 700,000 plug-in electric*  
15          *drive vehicles would result in a petroleum savings of*  
16          *approximately 10,000,000 barrels per year compared*  
17          *to the annual petroleum consumption as of the date*  
18          *of enactment of this Act;*

19          (11) *in 2030, the United States could feasibly de-*  
20          *ploy more than 100,000,000 plug-in electric drive ve-*  
21          *hicles, which would result in a petroleum savings of*  
22          *more than 1,000,000,000 barrels of petroleum per*  
23          *year and greenhouse gas reductions of over*  
24          *300,000,000 tons of carbon dioxide compared to the*

1        *annual petroleum consumption and greenhouse gas*  
 2        *emissions as of the date of enactment of this Act; and*

3            *(12) a targeted deployment program for plug-in*  
 4        *electric drive vehicles that is focused on competitively*  
 5        *selected deployment communities—*

6            *(A) is a critical component of a comprehen-*  
 7        *sive effort to speed plug-in electric drive vehicle*  
 8        *penetration rates;*

9            *(B) will contribute to the larger national ef-*  
 10       *fort to deploy plug-in electric drive vehicles;*

11           *(C) will inform best practices for the wide-*  
 12       *scale deployment of plug-in electric drive vehi-*  
 13       *cles; and*

14           *(D) will substantially reduce the oil con-*  
 15       *sumption of the United States.*

16    **SEC. 3. DEFINITIONS.**

17        *In this Act:*

18           *(1) AGENCY.—The term “agency” has the mean-*  
 19       *ing given the term “Executive agency” in section 105*  
 20       *of title 5, United States Code.*

21           *(2) CHARGING INFRASTRUCTURE.—The term*  
 22       *“charging infrastructure” means any property (not*  
 23       *including a building) if the property is used for the*  
 24       *recharging of plug-in electric drive vehicles, including*

1        *electrical panel upgrades, wiring, conduit, trenching,*  
 2        *pedestals, and related equipment.*

3            (3) *COMMITTEE.*—*The term “Committee” means*  
 4        *the Plug-in Electric Drive Vehicle Technical Advisory*  
 5        *Committee established by section 304.*

6            (4) *DEPLOYMENT COMMUNITY.*—*The term “de-*  
 7        *ployment community” means a community selected*  
 8        *by the Secretary to be part of the targeted plug-in*  
 9        *electric drive vehicles deployment communities pro-*  
 10       *gram under section 106.*

11           (5) *ELECTRIC UTILITY.*—*The term “electric util-*  
 12        *ity” has the meaning given the term in section 3 of*  
 13        *the Public Utility Regulatory Policies Act of 1978 (16*  
 14        *U.S.C. 2602).*

15           (6) *FEDERAL-AID SYSTEM OF HIGHWAYS.*—*The*  
 16        *term “Federal-aid system of highways” means a high-*  
 17        *way system described in section 103 of title 23,*  
 18        *United States Code.*

19           (7) *PLUG-IN ELECTRIC DRIVE VEHICLE.*—

20            (A) *IN GENERAL.*—*The term “plug-in elec-*  
 21        *tric drive vehicle” has the meaning given the*  
 22        *term in section 131(a)(5) of the Energy Inde-*  
 23        *pendence and Security Act of 2007 (42 U.S.C.*  
 24        *17011(a)(5)).*

1                   (B) *INCLUSIONS.*—The term “plug-in elec-  
2                   tric drive vehicle” includes—

3                   (i) *low speed plug-in electric drive ve-*  
4                   *hicles that meet the Federal Motor Vehicle*  
5                   *Safety Standards described in section*  
6                   *571.500 of title 49, Code of Federal Regula-*  
7                   *tions (or successor regulations); and*

8                   (ii) *any other electric drive motor vehi-*  
9                   *cle that can be recharged from an external*  
10                  *source of motive power and that is author-*  
11                  *ized to travel on the Federal-aid system of*  
12                  *highways.*

13               (8) *PRIZE.*—The term “Prize” means the Ad-  
14               vanced Batteries for Tomorrow Prize established by  
15               section 202.

16               (9) *SECRETARY.*—The term “Secretary” means  
17               the Secretary of Energy.

18               (10) *TASK FORCE.*—The term “Task Force”  
19               means the Plug-in Electric Drive Vehicle Interagency  
20               Task Force established by section 305.

1 **TITLE I—NATIONAL PLUG-IN**  
 2 **ELECTRIC DRIVE VEHICLE**  
 3 **DEPLOYMENT PROGRAM.**

4 **SEC. 101. NATIONAL PLUG-IN ELECTRIC DRIVE VEHICLE DE-**  
 5 **PLOYMENT PROGRAM.**

6 (a) *IN GENERAL.*—*There is established within the De-*  
 7 *partment of Energy a national plug-in electric drive vehicle*  
 8 *deployment program for the purpose of assisting in the de-*  
 9 *ployment of plug-in electric drive vehicles.*

10 (b) *GOALS.*—*The goals of the national program de-*  
 11 *scribed in subsection (a) include—*

12 (1) *the reduction and displacement of petroleum*  
 13 *use by accelerating the deployment of plug-in electric*  
 14 *drive vehicles in the United States;*

15 (2) *the reduction of greenhouse gas emissions by*  
 16 *accelerating the deployment of plug-in electric drive*  
 17 *vehicles in the United States;*

18 (3) *the facilitation of the rapid deployment of*  
 19 *plug-in electric drive vehicles;*

20 (4) *the achievement of significant market pene-*  
 21 *trations by plug-in electric drive vehicles nationally;*

22 (5) *the establishment of models for the rapid de-*  
 23 *ployment of plug-in electric drive vehicles nationally,*  
 24 *including models for the deployment of residential,*

1       *private, and publicly available charging infrastruc-*  
2       *ture;*

3               *(6) the increase of consumer knowledge and ac-*  
4       *ceptance of plug-in electric drive vehicles;*

5               *(7) the encouragement of the innovation and in-*  
6       *vestment necessary to achieve mass market deploy-*  
7       *ment of plug-in electric drive vehicles;*

8               *(8) the facilitation of the integration of plug-in*  
9       *electric drive vehicles into electricity distribution sys-*  
10       *tems and the larger electric grid while maintaining*  
11       *grid system performance and reliability;*

12               *(9) the provision of technical assistance to com-*  
13       *munities across the United States to prepare for plug-*  
14       *in electric drive vehicles; and*

15               *(10) the support of workforce training across the*  
16       *United States relating to plug-in electric drive vehi-*  
17       *cles.*

18       *(c) DUTIES.—In carrying out this title, the Secretary*  
19       *shall—*

20               *(1) provide technical assistance to State, local,*  
21       *and tribal governments that want to create deploy-*  
22       *ment programs for plug-in electric drive vehicles in*  
23       *the communities over which the governments have ju-*  
24       *risdiction;*



1           (2) *perform national assessments of the potential*  
2           *deployment of plug-in electric drive vehicles under*  
3           *section 102;*

4           (3) *synthesize and disseminate data from the de-*  
5           *ployment of plug-in electric drive vehicles;*

6           (4) *develop best practices for the successful de-*  
7           *ployment of plug-in electric drive vehicles;*

8           (5) *carry out workforce training under section*  
9           *104;*

10          (6) *establish the targeted plug-in electric drive*  
11          *vehicle deployment communities program under sec-*  
12          *tion 106; and*

13          (7) *in conjunction with the Task Force, make*  
14          *recommendations to Congress and the President on*  
15          *methods to reduce the barriers to plug-in electric drive*  
16          *vehicle deployment.*

17          (d) *REPORT.*—*Not later than 18 months after the date*  
18          *of enactment of this Act and biennially thereafter, the Sec-*  
19          *retary shall submit to the appropriate committees of Con-*  
20          *gress a report on the progress made in implementing the*  
21          *national program described in subsection (a) that in-*  
22          *cludes—*

23                 (1) *a description of the progress made by—*

24                         (A) *the technical assistance program under*  
25                         *section 103; and*

1                   (B) the workforce training program under  
2                   section 104; and

3                   (2) any updated recommendations of the Sec-  
4                   retary for changes in Federal programs to promote  
5                   the purposes of this title.

6                   (e) NATIONAL INFORMATION CLEARINGHOUSE.—The  
7                   Secretary shall make available to the public, in a timely  
8                   manner, information regarding—

9                   (1) the cost, performance, usage data, and tech-  
10                  nical data regarding plug-in electric drive vehicles  
11                  and associated infrastructure, including information  
12                  from the deployment communities established under  
13                  section 106; and

14                  (2) any other educational information that the  
15                  Secretary determines to be appropriate.

16                  (f) AUTHORIZATION OF APPROPRIATIONS.—For the pe-  
17                  riod of fiscal years 2011 through 2016, there are authorized  
18                  to be appropriated \$100,000,000 to carry out sections 101  
19                  through 103.

20       **SEC. 102. NATIONAL ASSESSMENT AND PLAN.**

21                  (a) IN GENERAL.—Not later than 2 years after the  
22                  date of enactment of this Act, the Secretary shall carry out  
23                  a national assessment and develop a national plan for plug-  
24                  in electric drive vehicle deployment that includes—

1           (1) *an assessment of the maximum feasible de-*  
2           *ployment of plug-in electric drive vehicles by 2020*  
3           *and 2030;*

4           (2) *the establishment of national goals for mar-*  
5           *ket penetration of plug-in electric drive vehicles by*  
6           *2020 and 2030;*

7           (3) *a plan for integrating the successes and bar-*  
8           *riers to deployment identified by the deployment com-*  
9           *munities program established under section 106 to*  
10          *prepare communities across the Nation for the rapid*  
11          *deployment of plug-in electric drive vehicles;*

12          (4) *a plan for providing technical assistance to*  
13          *communities across the United States to prepare for*  
14          *plug-in electric drive vehicle deployment;*

15          (5) *a plan for quantifying the reduction in pe-*  
16          *troleum consumption and the net impact on green-*  
17          *house gas emissions due to the deployment of plug-in*  
18          *electric drive vehicles; and*

19          (6) *in consultation with the Task Force, any rec-*  
20          *ommendations to the President and to Congress for*  
21          *changes in Federal programs (including laws, regula-*  
22          *tions, and guidelines)—*

23                 (A) *to better promote the deployment of*  
24                 *plug-in electric drive vehicles; and*

1                   (B) to reduce barriers to the deployment of  
2                   plug-in electric drive vehicles.

3           (b) *UPDATES.*—Not later than 2 years after the date  
4 of development of the plan described in subsection (a), and  
5 not less frequently than once every 2 years thereafter, the  
6 Secretary shall use market data and information from the  
7 targeted plug-in electric drive vehicle deployment commu-  
8 nities program established under section 106 and other rel-  
9 evant data to update the plan to reflect real world market  
10 conditions.

11 **SEC. 103. TECHNICAL ASSISTANCE.**

12           (a) *TECHNICAL ASSISTANCE TO STATE, LOCAL, AND*  
13 *TRIBAL GOVERNMENTS.*—

14                   (1) *IN GENERAL.*—In carrying out this title, the  
15 Secretary shall provide, at the request of the Gov-  
16 ernor, Mayor, county executive, or the designee of  
17 such an official, technical assistance to State, local,  
18 and tribal governments to assist with the deployment  
19 of plug-in electric drive vehicles.

20                   (2) *REQUIREMENTS.*—The technical assistance  
21 described in paragraph (1) shall include—

22                           (A) training on codes and standards for  
23 building and safety inspectors;

24                           (B) training on best practices for expediting  
25 permits and inspections;

1           (C) education and outreach on frequently  
 2           asked questions relating to the various types of  
 3           plug-in electric drive vehicles and associated in-  
 4           frastructure, battery technology, and disposal;  
 5           and

6           (D) the dissemination of information re-  
 7           garding best practices for the deployment of  
 8           plug-in electric drive vehicles.

9           (3) *PRIORITY.*—In providing technical assistance  
 10          under this subsection, the Secretary shall give priority  
 11          to—

12           (A) communities that have established pub-  
 13           lic and private partnerships, including partner-  
 14           ships comprised of—

15                   (i) elected and appointed officials from  
 16                   each of the participating State, local, and  
 17                   tribal governments;

18                   (ii) relevant generators and distribu-  
 19                   tors of electricity;

20                   (iii) public utility commissions;

21                   (iv) departments of public works and  
 22                   transportation;

23                   (v) owners and operators of property  
 24                   that will be essential to the deployment of a  
 25                   sufficient level of publicly available charg-

1            *ing infrastructure (including privately*  
2            *owned parking lots or structures and com-*  
3            *mercial entities with public access loca-*  
4            *tions);*

5            *(vi) plug-in electric drive vehicle man-*  
6            *ufacturers or retailers;*

7            *(vii) third-party providers of charging*  
8            *infrastructure or services;*

9            *(viii) owners of any major fleet that*  
10           *will participate in the program;*

11           *(ix) as appropriate, owners and opera-*  
12           *tors of regional electric power distribution*  
13           *and transmission facilities; and*

14           *(x) other existing community coalitions*  
15           *recognized by the Department of Energy;*

16           *(B) communities that, as determined by the*  
17           *Secretary, have best demonstrated that the public*  
18           *is likely to embrace plug-in electric drive vehi-*  
19           *cles, giving particular consideration to commu-*  
20           *nities that—*

21           *(i) have documented waiting lists to*  
22           *purchase plug-in electric drive vehicles;*

23           *(ii) have developed projections of the*  
24           *quantity of plug-in electric drive vehicles*  
25           *supplied to dealers; and*

1                   (iii) have assessed the quantity of  
2                   charging infrastructure installed or for  
3                   which permits have been issued;

4                   (C) communities that have shown a com-  
5                   mitment to serving diverse consumer charging  
6                   infrastructure needs, including the charging in-  
7                   frastructure needs for single- and multi-family  
8                   housing and public and privately owned com-  
9                   mercial infrastructure; and

10                  (D) communities that have established regu-  
11                  latory and educational efforts to facilitate con-  
12                  sumer acceptance of plug-in electric drive vehi-  
13                  cles, including by—

14                   (i) adopting (or being in the process of  
15                   adopting) streamlined permitting and in-  
16                   spections processes for residential charging  
17                   infrastructure; and

18                   (ii) providing customer informational  
19                   resources, including providing plug-in elec-  
20                   tric drive information on community or  
21                   other websites.

22                  (4) *BEST PRACTICES.*—The Secretary shall col-  
23                  lect and disseminate information to State, local, and  
24                  tribal governments creating plans to deploy plug-in

1     *electric drive vehicles on best practices (including*  
 2     *codes and standards) that uses data from—*

3             *(A) the program established by section 106;*

4             *(B) the activities carried out by the Task*  
 5     *Force; and*

6             *(C) existing academic and industry studies*  
 7     *of the factors that contribute to the successful de-*  
 8     *ployment of new technologies, particularly stud-*  
 9     *ies relating to alternative fueled vehicles.*

10    (5) *GRANTS.—*

11            *(A) IN GENERAL.—The Secretary shall es-*  
 12    *tablish a program to provide grants to State,*  
 13    *local, and tribal governments or to partnerships*  
 14    *of government and private entities to assist the*  
 15    *governments and partnerships—*

16            *(i) in preparing a community deploy-*  
 17    *ment plan under section 106; and*

18            *(ii) in preparing and implementing*  
 19    *programs that support the deployment of*  
 20    *plug-in electric drive vehicles.*

21            *(B) APPLICATION.—A State, local, or tribal*  
 22    *government that seeks to receive a grant under*  
 23    *this paragraph shall submit to the Secretary an*  
 24    *application for the grant at such time, in such*



1        *form, and containing such information as the*  
2        *Secretary may prescribe.*

3                *(C) USE OF FUNDS.—A State, local, or trib-*  
4        *al government receiving a grant under this para-*  
5        *graph shall use the funds—*

6                *(i) to develop a community deployment*  
7        *plan that shall be submitted to the next*  
8        *available competition under section 106;*  
9        *and*

10               *(ii) to carry out activities that encour-*  
11       *age the deployment of plug-in electric drive*  
12       *vehicles including—*

13               *(I) planning for and installing*  
14       *charging infrastructure, particularly to*  
15       *develop and demonstrate diverse and*  
16       *cost-effective planning, installation,*  
17       *and operations options for deployment*  
18       *of single family and multifamily resi-*  
19       *dential, workplace, and publicly avail-*  
20       *able charging infrastructure;*

21               *(II) updating building, zoning, or*  
22       *parking codes and permitting or in-*  
23       *spection processes;*

24               *(III) workforce training, includ-*  
25       *ing the training of permitting officials;*

1 (IV) public education described in  
 2 the proposed marketing plan;

3 (V) shifting State, local, or tribal  
 4 government fleets to plug-in electric  
 5 drive vehicles, at a rate in excess of the  
 6 existing alternative fueled fleet vehicles  
 7 acquisition requirements for Federal  
 8 fleets under section 303(b)(1)(D) of the  
 9 Energy Policy Act of 1992 (42 U.S.C.  
 10 13212(b)(1)(D)); and

11 (VI) any other activities, as deter-  
 12 mined to be necessary by the Secretary.

13 (D) CRITERIA.—The Secretary shall develop  
 14 and publish criteria for the selection of technical  
 15 assistance grants, including requirements for the  
 16 submission of applications under this paragraph.

17 (E) AUTHORIZATION OF APPROPRIA-  
 18 TIONS.—There are authorized to be appropriated  
 19 such sums as are necessary to carry out this  
 20 paragraph.

21 (b) UPDATING MODEL BUILDING CODES, PERMITTING  
 22 AND INSPECTION PROCESSES, AND ZONING OR PARKING  
 23 RULES.—

24 (1) IN GENERAL.—Not later than 1 year after  
 25 the date of enactment of this Act, the Secretary, in

1       *consultation with the American Society of Heating,*  
2       *Refrigerating and Air-Conditioning Engineers, the*  
3       *International Code Council, and any other organiza-*  
4       *tions that the Secretary determines to be appropriate,*  
5       *shall develop and publish guidance for—*

6               *(A) model building codes for the inclusion of*  
7               *separate circuits for charging infrastructure, as*  
8               *appropriate, in new construction and major ren-*  
9               *ovations of private residences, buildings, or other*  
10              *structures that could provide publicly available*  
11              *charging infrastructure;*

12              *(B) model construction permitting or in-*  
13              *spection processes that allow for the expedited in-*  
14              *stallation of charging infrastructure for pur-*  
15              *chasers of plug-in electric drive vehicles (includ-*  
16              *ing a permitting process that allows a vehicle*  
17              *purchaser to have charging infrastructure in-*  
18              *stalled not later than 1 week after a request);*  
19              *and*

20              *(C) model zoning, parking rules, or other*  
21              *local ordinances that—*

22                      *(i) facilitate the installation of pub-*  
23                      *licly available charging infrastructure, in-*  
24                      *cluding commercial entities that provide*  
25                      *public access to infrastructure; and*

1                   (ii) allow for access to publicly avail-  
2                   able charging infrastructure.

3                   (2) *OPTIONAL ADOPTION.*—An applicant for se-  
4                   lection for technical assistance under this section or  
5                   as a deployment community under section 106 shall  
6                   not be required to use the model building codes, per-  
7                   mitting and inspection processes, or zoning, parking  
8                   rules, or other ordinances included in the report  
9                   under paragraph (1).

10                  (3) *SMART GRID INTEGRATION.*—In developing  
11                  the model codes or ordinances described in paragraph  
12                  (1), the Secretary shall consider smart grid integra-  
13                  tion.

14 **SEC. 104. WORKFORCE TRAINING.**

15                  (a) *MAINTENANCE AND SUPPORT.*—

16                   (1) *IN GENERAL.*—The Secretary, in consultation  
17                   with the Committee and the Task Force, shall award  
18                   grants to institutions of higher education and other  
19                   qualified training and education institutions for the  
20                   establishment of programs to provide training and  
21                   education for vocational workforce development  
22                   through centers of excellence.

23                   (2) *PURPOSE.*—Training funded under this sub-  
24                   section shall be intended to ensure that the workforce  
25                   has the necessary skills needed to work on and main-

1        *tain plug-in electric drive vehicles and the infrastruc-*  
 2        *ture required to support plug-in electric drive vehi-*  
 3        *cles.*

4            (3) *SCOPE.—Training funded under this sub-*  
 5        *section shall include training for—*

6                    (A) *first responders;*

7                    (B) *electricians and contractors who will be*  
 8        *installing infrastructure;*

9                    (C) *engineers;*

10                  (D) *code inspection officials; and*

11                  (E) *dealers and mechanics.*

12        (b) *DESIGN.—The Secretary shall award grants to in-*  
 13        *stitutions of higher education and other qualified training*  
 14        *and education institutions for the establishment of pro-*  
 15        *grams to provide training and education in designing plug-*  
 16        *in electric drive vehicles and associated components and in-*  
 17        *frastructure to ensure that the United States can lead the*  
 18        *world in this field.*

19        (c) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
 20        *authorized to be appropriated \$150,000,000 to carry out*  
 21        *this section.*

22        **SEC. 105. FEDERAL FLEETS.**

23        (a) *IN GENERAL.—Electricity consumed by Federal*  
 24        *agencies to fuel plug-in electric drive vehicles—*

1           (1) *is an alternative fuel (as defined in section*  
 2           *301 of the Energy Policy Act of 1992 (42 U.S.C.*  
 3           *13218)); and*

4           (2) *shall be accounted for under Federal fleet*  
 5           *management reporting requirements, not under Fed-*  
 6           *eral building management reporting requirements.*

7           (b) *ASSESSMENT AND REPORT.*—*Not later than 180*  
 8           *days after the date of enactment of this Act and every 3*  
 9           *years thereafter, the Federal Energy Management Program*  
 10          *and the General Services Administration, in consultation*  
 11          *with the Task Force, shall complete an assessment of Fed-*  
 12          *eral Government fleets, including the Postal Service and the*  
 13          *Department of Defense, and submit a report to Congress*  
 14          *that describes—*

15               (1) *for each Federal agency, which types of vehi-*  
 16               *cles the agency uses that would or would not be suit-*  
 17               *able for near-term and medium-term conversion to*  
 18               *plug-in electric drive vehicles, taking into account the*  
 19               *types of vehicles for which plug-in electric drive vehi-*  
 20               *cles could provide comparable functionality and*  
 21               *lifecycle costs;*

22               (2) *how many plug-in electric drive vehicles*  
 23               *could be deployed by the Federal Government in 5*  
 24               *years and in 10 years, assuming that plug-in electric*  
 25               *drive vehicles are available and are purchased when*

1        *new vehicles are needed or existing vehicles are re-*  
 2        *placed;*

3            *(3) the estimated cost to the Federal Government*  
 4        *for vehicle purchases under paragraph (2); and*

5            *(4) a description of any updates to the assess-*  
 6        *ment based on new market data.*

7        *(c) INVENTORY AND DATA COLLECTION.—*

8            *(1) IN GENERAL.—In carrying out the assess-*  
 9        *ment and report under subsection (b), the Federal*  
 10       *Energy Management Program, in consultation with*  
 11       *the General Services Administration, shall—*

12            *(A) develop an information request for each*  
 13        *agency that operates a fleet of at least 20 motor*  
 14        *vehicles; and*

15            *(B) establish guidelines for each agency to*  
 16        *use in developing a plan to deploy plug-in elec-*  
 17        *tric drive vehicles.*

18            *(2) AGENCY RESPONSES.—Each agency that op-*  
 19        *erates a fleet of at least 20 motor vehicles shall—*

20            *(A) collect information on the vehicle fleet of*  
 21        *the agency in response to the information request*  
 22        *described in paragraph (1); and*

23            *(B) develop a plan to deploy plug-in electric*  
 24        *drive vehicles.*

1           (3) *ANALYSIS OF RESPONSES.*—*The Federal En-*  
 2           *ergy Management Program shall—*

3                   (A) *analyze the information submitted by*  
 4                   *each agency under paragraph (2);*

5                   (B) *approve or suggest amendments to the*  
 6                   *plan of each agency to ensure that the plan is*  
 7                   *consistent with the goals and requirements of*  
 8                   *this Act; and*

9                   (C) *submit a plan to Congress and the Gen-*  
 10                   *eral Services Administration to be used in devel-*  
 11                   *oping the pilot program described in subsection*  
 12                   *(e).*

13           (d) *BUDGET REQUEST.*—*Each agency of the Federal*  
 14           *Government shall include plug-in electric drive vehicle pur-*  
 15           *chases identified in the report under subsection (b) in the*  
 16           *budget of the agency to be included in the budget of the*  
 17           *United States Government submitted by the President*  
 18           *under section 1105 of title 31, United States Code.*

19           (e) *PILOT PROGRAM TO DEPLOY PLUG-IN ELECTRIC*  
 20           *DRIVE VEHICLES IN THE FEDERAL FLEET.*—

21                   (1) *IN GENERAL.*—*The Administrator of General*  
 22                   *Services shall acquire plug-in electric drive vehicles*  
 23                   *and the requisite charging infrastructure to be de-*  
 24                   *ployed in a range of locations in Federal Government*  
 25                   *fleets, which may include the United States Postal*



1     *Service and the Department of Defense, during the 5-*  
 2     *year period beginning on the date of enactment of this*  
 3     *Act.*

4           (2) *DATA COLLECTION.*—*The Administrator of*  
 5     *General Services shall collect data regarding—*

6                 (A) *the cost, performance, and use of plug-*  
 7                 *in electric drive vehicles in the Federal fleet;*

8                 (B) *the deployment and integration of plug-*  
 9                 *in electric drive vehicles in the Federal fleet; and*

10                (C) *the contribution of plug-in electric drive*  
 11                *vehicles in the Federal fleet toward reducing the*  
 12                *use of fossil fuels and greenhouse gas emissions.*

13           (3) *REPORT.*—*Not later than 6 years after the*  
 14     *date of enactment of this Act, the Administrator of*  
 15     *General Services shall submit to the appropriate com-*  
 16     *mittees of Congress a report that—*

17                 (A) *describes the status of plug-in electric*  
 18                 *drive vehicles in the Federal fleet; and*

19                 (B) *includes an analysis of the data col-*  
 20                 *lected under this subsection.*

21           (4) *PUBLIC WEB SITE.*—*The Federal Energy*  
 22     *Management Program shall maintain and regularly*  
 23     *update a publicly available Web site that provides in-*  
 24     *formation on the status of plug-in electric drive vehi-*  
 25     *cles in the Federal fleet.*

1       (f) *ACQUISITION PRIORITY.*—Section 507(g) of the En-  
 2       ergy Policy Act of 1992 (42 U.S.C. 13257(g)) is amended  
 3       by adding at the end the following:

4               “(5) *PRIORITY.*—The Secretary shall, to the  
 5       maximum extent practicable, prioritize the acquisi-  
 6       tion of plug-in electric drive vehicles (as defined in  
 7       section 131(a) of the Energy Independence and Secu-  
 8       rity Act of 2007 (42 U.S.C. 17011(a)) over nonelectric  
 9       alternative fueled vehicles.”.

10       (g) *AUTHORIZATION OF APPROPRIATIONS.*—There is  
 11       authorized to be appropriated for the Federal Government  
 12       to pay for incremental costs to purchase or lease plug-in  
 13       electric drive vehicles and the requisite charging infrastruc-  
 14       ture for Federal fleets \$25,000,000.

15       **SEC. 106. TARGETED PLUG-IN ELECTRIC DRIVE VEHICLE**  
 16       **DEPLOYMENT COMMUNITIES PROGRAM.**

17       (a) *ESTABLISHMENT.*—

18               (1) *IN GENERAL.*—There is established within  
 19       the national plug-in electric drive deployment pro-  
 20       gram established under section 101 a targeted plug-  
 21       in electric drive vehicle deployment communities pro-  
 22       gram (referred to in this section as the “Program”).

23               (2) *EXISTING ACTIVITIES.*—In carrying out the  
 24       Program, the Secretary shall coordinate and supple-  
 25       ment, not supplant, any ongoing plug-in electric

1       *drive deployment activities under section 131 of the*  
2       *Energy Independence and Security Act of 2007 (42*  
3       *U.S.C. 17011).*

4           (3) *PHASE 1.*—

5               (A) *IN GENERAL.*—*The Secretary shall es-*  
6       *tablish a competitive process to select phase 1 de-*  
7       *ployment communities for the Program.*

8               (B) *ELIGIBLE ENTITIES.*—*In selecting par-*  
9       *ticipants for the Program under paragraph (1),*  
10       *the Secretary shall only consider applications*  
11       *submitted by State, tribal, or local government*  
12       *entities (or groups of State, tribal, or local gov-*  
13       *ernment entities).*

14              (C) *SELECTION.*—*Not later than 1 year*  
15       *after the date of enactment of this Act and not*  
16       *later than 1 year after the date on which any*  
17       *subsequent amounts are appropriated for the*  
18       *Program, the Secretary shall select the phase 1*  
19       *deployment communities under this paragraph.*

20              (D) *TERMINATION.*—*Phase 1 of the Pro-*  
21       *gram shall be carried out for a 3-year period be-*  
22       *ginning on the date funding under this Act is*  
23       *first provided to the deployment community.*

24           (4) *PHASE 2.*—*Not later than 3 years after the*  
25       *date of enactment of this Act, the Secretary shall sub-*

1        *mit to Congress a report that analyzes the lessons*  
2        *learned in phase I and, if, based on the phase I anal-*  
3        *ysis, the Secretary determines that a phase II pro-*  
4        *gram is warranted, makes recommendations and de-*  
5        *scribes a plan for phase II, including—*

6                *(A) recommendations regarding—*

7                        *(i) options for the number of addi-*  
8                        *tional deployment communities that should*  
9                        *be selected;*

10                      *(ii) the manner in which criteria for*  
11                      *selection should be updated;*

12                      *(iii) the manner in which incentive*  
13                      *structures for phase 2 deployment should be*  
14                      *changed; and*

15                      *(iv) whether other forms of onboard en-*  
16                      *ergy storage for electric drive vehicles, such*  
17                      *as fuel cells, should be included in phase 2;*  
18                      *and*

19                *(B) a request for appropriations to imple-*  
20                *ment phase 2 of the Program.*

21        *(b) GOALS.—The goals of the Program are—*

22                      *(1) to facilitate the rapid deployment of plug-in*  
23                      *electric drive vehicles, including—*

1           (A) the deployment of 400,000 plug-in elec-  
2       tric drive vehicles in phase 1 in the deployment  
3       communities selected under paragraph (2);

4           (B) the near-term achievement of significant  
5       market penetration in deployment communities;  
6       and

7           (C) supporting the achievement of signifi-  
8       cant market penetration nationally;

9       (2) to establish models for the rapid deployment  
10      of plug-in electric drive vehicles nationally, including  
11      for the deployment of single-family and multifamily  
12      residential, workplace, and publicly available charg-  
13      ing infrastructure;

14      (3) to increase consumer knowledge and accept-  
15      ance of, and exposure to, plug-in electric drive vehi-  
16      cles;

17      (4) to encourage the innovation and investment  
18      necessary to achieve mass market deployment of plug-  
19      in electric drive vehicles;

20      (5) to demonstrate the integration of plug-in  
21      electric drive vehicles into electricity distribution sys-  
22      tems and the larger electric grid while maintaining  
23      or improving grid system performance and reli-  
24      ability;

1           (6) to demonstrate protocols and communication  
2 standards that facilitate vehicle integration into the  
3 grid and provide seamless charging for consumers  
4 traveling through multiple utility distribution sys-  
5 tems;

6           (7) to investigate differences among deployment  
7 communities and to develop best practices for imple-  
8 menting vehicle electrification in various commu-  
9 nities, including best practices for planning for and  
10 facilitating the construction of residential, workplace,  
11 and publicly available infrastructure to support plug-  
12 in electric drive vehicles;

13          (8) to collect comprehensive data on the purchase  
14 and use of plug-in electric drive vehicles, including  
15 charging profile data at unit and aggregate levels, to  
16 inform best practices for rapidly deploying plug-in  
17 electric drive vehicles in other locations, including for  
18 the installation of charging infrastructure;

19          (9) to reduce and displace petroleum use and re-  
20 duce greenhouse gas emissions by accelerating the de-  
21 ployment of plug-in electric drive vehicles in the  
22 United States; and

23          (10) to increase domestic manufacturing capac-  
24 ity and commercialization in a manner that will es-

1        *tablish the United States as a world leader in plug-*  
 2        *in electric drive vehicle technologies.*

3        *(c) PHASE 1 DEPLOYMENT COMMUNITY SELECTION*  
 4        *CRITERIA.—*

5                *(1) IN GENERAL.—The Secretary shall ensure, to*  
 6        *the maximum extent practicable, that selected deploy-*  
 7        *ment communities in phase 1 serve as models of de-*  
 8        *ployment for various communities across the United*  
 9        *States.*

10               *(2) SELECTION.—In selecting communities under*  
 11        *this section, the Secretary—*

12                *(A) shall ensure, to the maximum extent*  
 13        *practicable, that—*

14                        *(i) the combination of selected commu-*  
 15                        *nities is diverse in population density, de-*  
 16                        *mographics, urban and suburban composi-*  
 17                        *tion, typical commuting patterns, climate,*  
 18                        *and type of utility (including investor-*  
 19                        *owned, publicly-owned, cooperatively-owned,*  
 20                        *distribution-only, and vertically integrated*  
 21                        *utilities);*

22                        *(ii) the combination of selected commu-*  
 23                        *nities is diverse in geographic distribution,*  
 24                        *and at least 1 deployment community is lo-*

1                    *cated in each Petroleum Administration for*  
2                    *Defense District;*

3                    *(iii) at least 1 community selected has*  
4                    *a population of less than 125,000;*

5                    *(iv) grants are of a sufficient amount*  
6                    *such that each deployment community will*  
7                    *achieve significant market penetration; and*

8                    *(v) the deployment communities are*  
9                    *representative of other communities across*  
10                   *the United States;*

11                   *(B) is encouraged to select a combination of*  
12                   *deployment communities that includes multiple*  
13                   *models or approaches for deploying plug-in elec-*  
14                   *tric drive vehicles that the Secretary believes are*  
15                   *reasonably likely to be effective, including mul-*  
16                   *tiple approaches to the deployment of charging*  
17                   *infrastructure;*

18                   *(C) in addition to the criteria described in*  
19                   *subparagraph (A), may give preference to appli-*  
20                   *cants proposing a greater non-Federal cost share;*  
21                   *and*

22                   *(D) when considering deployment commu-*  
23                   *nity plans, shall take into account previous De-*  
24                   *partment of Energy and other Federal invest-*



ments to ensure that the maximum domestic benefit from Federal investments is realized.

(3) *CRITERIA.*—

(A) *IN GENERAL.*—Not later than 120 days after the date of enactment of this Act, and not later than 90 days after the date on which any subsequent amounts are appropriated for the Program, the Secretary shall publish criteria for the selection of deployment communities that include requirements that applications be submitted by a State, tribal, or local government entity (or groups of State, tribal, or local government entities).

(B) *APPLICATION REQUIREMENTS.*—The criteria published by the Secretary under subparagraph (A) shall include application requirements that, at a minimum, include—

(i) goals for—

(I) the number of plug-in electric drive vehicles to be deployed in the community;

(II) the expected percentage of light-duty vehicle sales that would be sales of plug-in electric drive vehicles; and

1                   (III) the adoption of plug-in elec-  
2                   tric drive vehicles (including medium-  
3                   or heavy-duty vehicles) in private and  
4                   public fleets during the 3-year dura-  
5                   tion of the Program;

6                   (ii) data that demonstrate that—

7                   (I) the public is likely to embrace  
8                   plug-in electric drive vehicles, which  
9                   may include—

10                   (aa) the quantity of plug-in  
11                   electric drive vehicles purchased;

12                   (bb) the number of individ-  
13                   uals on a waiting list to purchase  
14                   a plug-in electric drive vehicle;

15                   (cc) projections of the quan-  
16                   tity of plug-in electric drive vehi-  
17                   cles supplied to dealers; and

18                   (dd) any assessment of the  
19                   quantity of charging infrastruc-  
20                   ture installed or for which permits  
21                   have been issued; and

22                   (II) automobile manufacturers  
23                   and dealers will be able to provide and  
24                   service the targeted number of plug-in

1           *electric drive vehicles in the commu-*  
2           *nity for the duration of the program;*

3           *(iii) clearly defined geographic bound-*  
4           *aries of the proposed deployment area;*

5           *(iv) a community deployment plan for*  
6           *the deployment of plug-in electric drive ve-*  
7           *hicles, charging infrastructure, and services*  
8           *in the deployment community;*

9           *(v) assurances that a majority of the*  
10          *vehicle deployments anticipated in the plan*  
11          *will be personal vehicles authorized to travel*  
12          *on the United States Federal-aid system of*  
13          *highways, and secondarily, private or pub-*  
14          *lic sector plug-in electric drive fleet vehicles,*  
15          *but may also include—*

16                *(I) medium- and heavy-duty*  
17                *plug-in hybrid vehicles;*

18                *(II) low speed plug-in electric*  
19                *drive vehicles that meet Federal Motor*  
20                *Vehicle Safety Standards described in*  
21                *section 571.500 of title 49, Code of*  
22                *Federal Regulations; and*

23                *(III) any other plug-in electric*  
24                *drive vehicle authorized to travel on*

1                   *the United States Federal-aid system*  
 2                   *of highways; and*

3                   *(vi) any other merit-based criteria, as*  
 4                   *determined by the Secretary.*

5                   (4) *COMMUNITY DEPLOYMENT PLANS.—Plans for*  
 6                   *the deployment of plug-in electric drive vehicles shall*  
 7                   *include—*

8                   (A) *a proposed level of cost sharing in ac-*  
 9                   *cordance with subsection (d)(2)(C);*

10                  (B) *documentation demonstrating a sub-*  
 11                  *stantial partnership with relevant stakeholders,*  
 12                  *including—*

13                  (i) *a list of stakeholders that in-*  
 14                  *cludes—*

15                  (I) *elected and appointed officials*  
 16                  *from each of the participating State,*  
 17                  *local, and tribal governments;*

18                  (II) *all relevant generators and*  
 19                  *distributors of electricity;*

20                  (III) *State utility regulatory au-*  
 21                  *thorities;*

22                  (IV) *departments of public works*  
 23                  *and transportation;*

24                  (V) *owners and operators of prop-*  
 25                  *erty that will be essential to the de-*

1            *ployment of a sufficient level of pub-*  
2            *licly available charging infrastructure*  
3            *(including privately owned parking*  
4            *lots or structures and commercial enti-*  
5            *ties with public access locations);*

6            *(VI) plug-in electric drive vehicle*  
7            *manufacturers or retailers;*

8            *(VII) third-party providers of res-*  
9            *idential, workplace, private, and pub-*  
10           *licly available charging infrastructure*  
11           *or services;*

12           *(VIII) owners of any major fleet*  
13           *that will participate in the program;*

14           *(IX) as appropriate, owners and*  
15           *operators of regional electric power dis-*  
16           *tribution and transmission facilities;*  
17           *and*

18           *(X) as appropriate, other existing*  
19           *community coalitions recognized by the*  
20           *Department of Energy;*

21           *(ii) evidence of the commitment of the*  
22           *stakeholders to participate in the partner-*  
23           *ship;*

24           *(iii) a clear description of the role and*  
25           *responsibilities of each stakeholder; and*

1                   (iv) a plan for continuing the engage-  
2                   ment and participation of the stakeholders,  
3                   as appropriate, throughout the implementa-  
4                   tion of the deployment plan;

5                   (C) a description of the number of plug-in  
6                   electric drive vehicles anticipated to be plug-in  
7                   electric drive personal vehicles and the number of  
8                   plug-in electric drive vehicles anticipated to be  
9                   privately owned fleet or public fleet vehicles;

10                  (D) a plan for deploying residential, work-  
11                  place, private, and publicly available charging  
12                  infrastructure, including—

13                       (i) an assessment of the number of con-  
14                       sumers who will have access to private resi-  
15                       dential charging infrastructure in single-  
16                       family or multifamily residences;

17                       (ii) options for accommodating plug-in  
18                       electric drive vehicle owners who are not  
19                       able to charge vehicles at their place of resi-  
20                       dence;

21                       (iii) an assessment of the number of  
22                       consumers who will have access to work-  
23                       place charging infrastructure;

24                       (iv) a plan for ensuring that the charg-  
25                       ing infrastructure or plug-in electric drive

1           *vehicle be able to send and receive the infor-*  
2           *mation needed to interact with the grid and*  
3           *be compatible with smart grid technologies*  
4           *to the extent feasible;*

5           *(v) an estimate of the number and dis-*  
6           *persion of publicly and privately owned*  
7           *charging stations that will be publicly or*  
8           *commercially available;*

9           *(vi) an estimate of the quantity of*  
10          *charging infrastructure that will be pri-*  
11          *vately funded or located on private prop-*  
12          *erty; and*

13          *(vii) a description of equipment to be*  
14          *deployed, including assurances that, to the*  
15          *maximum extent practicable, equipment to*  
16          *be deployed will meet open, nonproprietary*  
17          *standards for connecting to plug-in electric*  
18          *drive vehicles that are either—*

19               *(I) commonly accepted by indus-*  
20               *try at the time the equipment is being*  
21               *acquired; or*

22               *(II) meet the standards developed*  
23               *by the Director of the National Insti-*  
24               *tute of Standards and Technology*  
25               *under section 1305 of the Energy Inde-*

1                    *pendence and Security Act of 2007 (42*  
2                    *U.S.C. 17385);*

3                    *(E) a plan for effective marketing of and*  
4                    *consumer education relating to plug-in electric*  
5                    *drive vehicles, charging services, and infrastruc-*  
6                    *ture;*

7                    *(F) descriptions of updated building codes*  
8                    *(or a plan to update building codes before or*  
9                    *during the grant period) to include charging in-*  
10                   *frastructure or dedicated circuits for charging*  
11                   *infrastructure, as appropriate, in new construc-*  
12                   *tion and major renovations;*

13                   *(G) descriptions of updated construction*  
14                   *permitting or inspection processes (or a plan to*  
15                   *update construction permitting or inspection*  
16                   *processes) to allow for expedited installation of*  
17                   *charging infrastructure for purchasers of plug-in*  
18                   *electric drive vehicles, including a permitting*  
19                   *process that allows a vehicle purchaser to have*  
20                   *charging infrastructure installed in a timely*  
21                   *manner;*

22                   *(H) descriptions of updated zoning, parking*  
23                   *rules, or other local ordinances as are necessary*  
24                   *to facilitate the installation of publicly available*  
25                   *charging infrastructure and to allow for access to*



1        *publicly available charging infrastructure, as*  
2        *appropriate;*

3            *(I) a plan to ensure that each resident in*  
4        *a deployment community who purchases and*  
5        *registers a new plug-in electric drive vehicle*  
6        *throughout the duration of the deployment com-*  
7        *munity receives, in addition to any Federal in-*  
8        *centives, consumer benefits that may include—*

9            *(i) a rebate of part of the purchase*  
10        *price of the vehicle;*

11           *(ii) reductions in sales taxes or reg-*  
12        *istration fees;*

13           *(iii) rebates or reductions in the costs*  
14        *of permitting, purchasing, or installing*  
15        *home plug-in electric drive vehicle charging*  
16        *infrastructure; and*

17           *(iv) rebates or reductions in State or*  
18        *local toll road access charges;*

19           *(J) additional consumer benefits, such as*  
20        *preferred parking spaces or single-rider access to*  
21        *high-occupancy vehicle lanes for plug-in electric*  
22        *drive vehicles;*

23           *(K) a proposed plan for making necessary*  
24        *utility and grid upgrades, including economi-*  
25        *cally sound and cybersecure information tech-*

1            *nology upgrades and employee training, and a*  
 2            *plan for recovering the cost of the upgrades;*

3            *(L) a description of utility, grid operator,*  
 4            *or third-party charging service provider, policies*  
 5            *and plans for accommodating the deployment of*  
 6            *plug-in electric drive vehicles, including—*

7                    *(i) rate structures or provisions and*  
 8                    *billing protocols for the charging of plug-in*  
 9                    *electric drive vehicles;*

10                   *(ii) analysis of potential impacts to the*  
 11                   *grid;*

12                   *(iii) plans for using information tech-*  
 13                   *nology or third-party aggregators—*

14                   *(I) to minimize the effects of*  
 15                   *charging on peak loads;*

16                   *(II) to enhance reliability; and*

17                   *(III) to provide other grid bene-*  
 18                   *fits;*

19                   *(iv) plans for working with smart grid*  
 20                   *technologies or third-party aggregators for*  
 21                   *the purposes of smart charging and for al-*  
 22                   *lowing 2-way communication;*

23                   *(M) a deployment timeline;*

24                   *(N) a plan for monitoring and evaluating*  
 25                   *the implementation of the plan, including*

1        *metrics for assessing the success of the deploy-*  
 2        *ment and an approach to updating the plan, as*  
 3        *appropriate; and*

4                *(O) a description of the manner in which*  
 5        *any grant funds applied for under subsection (d)*  
 6        *will be used and the proposed local cost share for*  
 7        *the funds.*

8        *(d) PHASE 1 APPLICATIONS AND GRANTS.—*

9                *(1) APPLICATIONS.—*

10                *(A) IN GENERAL.—Not later than 150 days*  
 11        *after the date of publication by the Secretary of*  
 12        *selection criteria described in subsection (c)(3),*  
 13        *any State, tribal, or local government, or group*  
 14        *of State, tribal, or local governments may apply*  
 15        *to the Secretary to become a deployment commu-*  
 16        *nity.*

17                *(B) JOINT SPONSORSHIP.—*

18                *(i) IN GENERAL.—An application sub-*  
 19        *mitted under subparagraph (A) may be*  
 20        *jointly sponsored by electric utilities, auto-*  
 21        *mobile manufacturers, technology providers,*  
 22        *carsharing companies or organizations,*  
 23        *third-party plug-in electric drive vehicle*  
 24        *service providers, or other appropriated en-*  
 25        *tities.*

1                   (ii) *DISBURSEMENT OF GRANTS.*—A  
 2                   *grant provided under this subsection shall*  
 3                   *only be disbursed to a State, tribal, or local*  
 4                   *government, or group of State, tribal, or*  
 5                   *local governments, regardless of whether the*  
 6                   *application is jointly sponsored under*  
 7                   *clause (i).*

8                   (2) *GRANTS.*—

9                   (A) *IN GENERAL.*—*In each application, the*  
 10                  *applicant may request up to \$250,000,000 in fi-*  
 11                  *nancial assistance from the Secretary to fund*  
 12                  *projects in the deployment community.*

13                  (B) *USE OF FUNDS.*—*Funds provided*  
 14                  *through a grant under this paragraph may be*  
 15                  *used to help implement the plan for the deploy-*  
 16                  *ment of plug-in electric drive vehicles included*  
 17                  *in the application, including—*

18                       (i) *planning for and installing charg-*  
 19                       *ing infrastructure, including offering addi-*  
 20                       *tional incentives as described in subsection*  
 21                       *(c)(4)(I);*

22                       (ii) *updating building codes, zoning or*  
 23                       *parking rules, or permitting or inspection*  
 24                       *processes as described in subparagraphs (F),*  
 25                       *(G), and (H) of subsection (c)(4);*

1           (iii) *reducing the cost and increasing*  
 2           *the consumer adoption of plug-in electric*  
 3           *drive vehicles through incentives as de-*  
 4           *scribed in subsection (c)(4)(I);*

5           (iv) *workforce training, including*  
 6           *training of permitting officials;*

7           (v) *public education and marketing de-*  
 8           *scribed in the proposed marketing plan;*

9           (vi) *shifting State, tribal, or local gov-*  
 10          *ernment fleets to plug-in electric drive vehi-*  
 11          *cles, at a rate in excess of the existing alter-*  
 12          *native fueled fleet vehicle acquisition re-*  
 13          *quirements for Federal fleets under section*  
 14          *303(b)(1)(D) of the Energy Policy Act of*  
 15          *1992 (42 U.S.C. 13212(b)(1)(D)); and*

16          (vii) *necessary utility and grid up-*  
 17          *grades as described in subsection (c)(4)(K).*

18          (C) *COST-SHARING.—*

19           (i) *IN GENERAL.—A grant provided*  
 20           *under this paragraph shall be subject to a*  
 21           *minimum non-Federal cost-sharing require-*  
 22           *ment of 20 percent.*

23           (ii) *NON-FEDERAL SOURCES.—The*  
 24           *Secretary shall—*

1                   (I) determine the appropriate cost  
2                   share for each selected applicant; and

3                   (II) require that not less than 20  
4                   percent of the cost of an activity fund-  
5                   ed by a grant under this paragraph be  
6                   provided by a non-Federal source.

7                   (iii) *REDUCTION.*—The Secretary may  
8                   reduce or eliminate the cost-sharing require-  
9                   ment described in clause (i), as the Sec-  
10                  retary determines to be necessary.

11                  (iv) *CALCULATION OF AMOUNT.*—In  
12                  calculating the amount of the non-Federal  
13                  share under this section, the Secretary—

14                   (I) may include allowable costs in  
15                   accordance with the applicable cost  
16                   principles, including—

17                           (aa) cash;

18                           (bb) personnel costs;

19                           (cc) the value of a service,  
20                   other resource, or third party in-  
21                   kind contribution determined in  
22                   accordance with the applicable  
23                   circular of the Office of Manage-  
24                   ment and Budget;

1                    *(dd) indirect costs or facili-*  
 2                    *ties and administrative costs; or*

3                    *(ee) any funds received under*  
 4                    *the power program of the Ten-*  
 5                    *nessee Valley Authority or any*  
 6                    *Power Marketing Administration*  
 7                    *(except to the extent that such*  
 8                    *funds are made available under*  
 9                    *an annual appropriation Act);*

10                  *(II) shall include contributions*  
 11                  *made by State, tribal, or local govern-*  
 12                  *ment entities and private entities; and*

13                  *(III) shall not include—*

14                    *(aa) revenues or royalties*  
 15                    *from the prospective operation of*  
 16                    *an activity beyond the time con-*  
 17                    *sidered in the grant;*

18                    *(bb) proceeds from the pro-*  
 19                    *spective sale of an asset of an ac-*  
 20                    *tivity; or*

21                    *(cc) other appropriated Fed-*  
 22                    *eral funds.*

23                  *(v) REPAYMENT OF FEDERAL*  
 24                  *SHARE.—The Secretary shall not require re-*  
 25                  *payment of the Federal share of a cost-*

1           *shared activity under this section as a con-*  
 2           *dition of providing a grant.*

3           (vi) *TITLE TO PROPERTY.—The Sec-*  
 4           *retary may vest title or other property in-*  
 5           *terests acquired under projects funded under*  
 6           *this Act in any entity, including the United*  
 7           *States.*

8           (3) *SELECTION.—Not later than 120 days after*  
 9           *an application deadline has been established under*  
 10          *paragraph (1), the Secretary shall announce the*  
 11          *names of the deployment communities selected under*  
 12          *this subsection.*

13          (e) *REPORTING REQUIREMENTS.—*

14           (1) *IN GENERAL.—The Secretary, in consultation*  
 15          *with the Committee, shall—*

16           (A) *determine what data will be required to*  
 17           *be collected by participants in deployment com-*  
 18           *munities and submitted to the Department to*  
 19           *allow for analysis of the deployment commu-*  
 20           *nities;*

21           (B) *provide for the protection of consumer*  
 22           *privacy, as appropriate; and*

23           (C) *develop metrics to evaluate the perform-*  
 24           *ance of the deployment communities.*



1           (2) *PROVISION OF DATA.*—As a condition of par-  
2       *ticipation in the Program, a deployment community*  
3       *shall provide any data identified by the Secretary*  
4       *under paragraph (1).*

5           (3) *REPORTS.*—Not later than 3 years after the  
6       *date of enactment of this Act and again after the com-*  
7       *pletion of the Program, the Secretary shall submit to*  
8       *Congress a report that contains—*

9           (A) *a description of the status of—*

10               (i) *the deployment communities and*  
11               *the implementation of the deployment plan*  
12               *of each deployment community;*

13               (ii) *the rate of vehicle deployment and*  
14               *market penetration of plug-in electric drive*  
15               *vehicles; and*

16               (iii) *the deployment of residential and*  
17               *publicly available infrastructure;*

18           (B) *a description of the challenges experi-*  
19       *enced and lessons learned from the program to*  
20       *date, including the activities described in sub-*  
21       *paragraph (A); and*

22           (C) *an analysis of the data collected under*  
23       *this subsection.*

1       (f) *PROPRIETARY INFORMATION.*—*The Secretary shall,*  
 2       *as appropriate, provide for the protection of proprietary in-*  
 3       *formation and intellectual property rights.*

4       (g) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 5       *authorized to be appropriated to carry out this section*  
 6       *\$2,000,002,000.*

7       (h) *CONFORMING AMENDMENT.*—*Section 166(b)(5) of*  
 8       *title 23, United States Code, is amended—*

9               (1) *in subparagraph (A), by striking “Before*  
 10       *September 30, 2009, the State” and inserting “The*  
 11       *State”; and*

12              (2) *in subparagraph (B), by striking “Before*  
 13       *September 30, 2009, the State” and inserting “The*  
 14       *State”.*

## 15       ***TITLE II—RESEARCH AND*** 16       ***DEVELOPMENT***

### 17       ***SEC. 201. RESEARCH AND DEVELOPMENT PROGRAM.***

18       (a) *RESEARCH AND DEVELOPMENT PROGRAM.*—

19              (1) *IN GENERAL.*—*The Secretary, in consultation*  
 20       *with the Committee, shall establish a program to fund*  
 21       *research and development in advanced batteries, plug-*  
 22       *in electric drive vehicle components, plug-in electric*  
 23       *drive infrastructure, and other technologies sup-*  
 24       *porting the development, manufacture, and deploy-*

1        *ment of plug-in electric drive vehicles and charging*  
2        *infrastructure.*

3            (2) *USE OF FUNDS.—The program may include*  
4        *funding for—*

5            (A) *the development of low-cost, smart-*  
6        *charging and vehicle-to-grid connectivity tech-*  
7        *nology;*

8            (B) *the benchmarking and assessment of*  
9        *open software systems using nationally estab-*  
10       *lished evaluation criteria; and*

11          (C) *new technologies in electricity storage or*  
12       *electric drive components for vehicles.*

13          (3) *REPORT.—Not later than 4 years after the*  
14       *date of enactment of this Act, the Secretary shall sub-*  
15       *mit to Congress a report describing the status of the*  
16       *program described in paragraph (1).*

17        (b) *SECONDARY USE APPLICATIONS PROGRAM.—*

18          (1) *IN GENERAL.—The Secretary, in consultation*  
19       *with the Committee, shall carry out a research, devel-*  
20       *opment, and demonstration program that builds upon*  
21       *any work carried out under section 915 of the Energy*  
22       *Policy Act of 2005 (42 U.S.C. 16195) and—*

23          (A) *identifies possible uses of a vehicle bat-*  
24       *tery after the useful life of the battery in a vehi-*  
25       *cle has been exhausted;*

1           (B) assesses the potential for markets for  
 2           uses described in subparagraph (A) to develop, as  
 3           well as any barriers to the development of the  
 4           markets;

5           (C) identifies the infrastructure, technology,  
 6           and equipment needed to manage the charging  
 7           activity of the batteries used in stationary  
 8           sources; and

9           (D) identifies the potential uses of a vehicle  
 10          battery—

11           (i) with the most promise for market  
 12           development; and

13           (ii) for which market development  
 14           would be aided by a demonstration project.

15          (2) *REPORT.*—Not later than 2 years after the  
 16          date of enactment of this Act, the Secretary shall sub-  
 17          mit to the appropriate committees of Congress an ini-  
 18          tial report on the findings of the program described  
 19          in paragraph (1), including recommendations for sta-  
 20          tionary energy storage and other potential applica-  
 21          tions for batteries used in plug-in electric drive vehi-  
 22          cles.

23          (c) *SECONDARY USE DEMONSTRATION PROJECTS.*—

24           (1) *IN GENERAL.*—Based on the results of the  
 25          program described in subsection (b), the Secretary, in

1       *consultation with the Committee, shall develop guide-*  
 2       *lines for projects that demonstrate the secondary uses*  
 3       *of vehicle batteries.*

4               (2) *PUBLICATION OF GUIDELINES.*—*Not later*  
 5       *than 30 months after the date of enactment of this*  
 6       *Act, the Secretary shall—*

7                       (A) *publish the guidelines described in*  
 8                       *paragraph (1); and*

9                       (B) *solicit applications for funding for dem-*  
 10       *onstration projects.*

11               (3) *GRANT PROGRAM.*—*Not later than 38 months*  
 12       *after the date of enactment of this Act, the Secretary*  
 13       *shall select proposals for grant funding under this sec-*  
 14       *tion, based on an assessment of which proposals are*  
 15       *mostly likely to contribute to the development of a sec-*  
 16       *ondary market for batteries.*

17       (d) *MATERIALS RECYCLING STUDY.*—

18                       (1) *IN GENERAL.*—*The Secretary, in consultation*  
 19       *with the Committee, shall carry out a study on the*  
 20       *recycling of materials from plug-in electric drive vehi-*  
 21       *cles and the batteries used in plug-in electric drive ve-*  
 22       *hicles.*

23                       (2) *REPORT.*—*Not later than 2 years after the*  
 24       *date of enactment of this Act, the Secretary shall sub-*  
 25       *mit to the appropriate committees of Congress a re-*

1        *port on the findings of the study described in para-*  
 2        *graph (1).*

3        *(e) AUTHORIZATION OF APPROPRIATIONS.—There is*  
 4        *authorized to be appropriated to carry out this section*  
 5        *\$1,535,000,000, including—*

6                *(1) \$1,500,000,000 for use in conducting the pro-*  
 7        *gram described in subsection (a) for fiscal years 2011*  
 8        *through 2020;*

9                *(2) \$5,000,000 for use in conducting the program*  
 10        *described in subsection (b) for fiscal years 2011*  
 11        *through 2016;*

12                *(3) \$25,000,000 for use in providing grants de-*  
 13        *scribed in subsection (c) for fiscal years 2011 through*  
 14        *2020; and*

15                *(4) \$5,000,000 for use in conducting the study*  
 16        *described in subsection (d) for fiscal years 2011*  
 17        *through 2013.*

18        **SEC. 202. ADVANCED BATTERIES FOR TOMORROW PRIZE.**

19        *(a) IN GENERAL.—Not later than 1 year after the date*  
 20        *of enactment of this Act, as part of the program described*  
 21        *in section 1008 of the Energy Policy Act of 2005 (42 U.S.C.*  
 22        *16396), the Secretary shall establish the Advanced Batteries*  
 23        *for Tomorrow Prize to competitively award cash prizes in*  
 24        *accordance with this section to advance the research, devel-*

1 *opment, demonstration, and commercial application of a*  
 2 *500-mile vehicle battery.*

3 *(b) BATTERY SPECIFICATIONS.—*

4 *(1) IN GENERAL.—To be eligible for the Prize, a*  
 5 *battery submitted by an entrant shall be—*

6 *(A) able to power a plug-in electric drive*  
 7 *vehicle authorized to travel on the United States*  
 8 *Federal-aid system of highways for at least 500*  
 9 *miles before recharging;*

10 *(B) of a size that would not be cost-prohibi-*  
 11 *tive or create space constraints, if mass-pro-*  
 12 *duced; and*

13 *(C) cost-effective (measured in cost per kilo-*  
 14 *watt hour), if mass-produced.*

15 *(2) ADDITIONAL REQUIREMENTS.—The Sec-*  
 16 *retary, in consultation with the Committee, shall es-*  
 17 *tablish any additional battery specifications that the*  
 18 *Secretary and the Committee determine to be nec-*  
 19 *essary.*

20 *(c) PRIVATE FUNDS.—*

21 *(1) IN GENERAL.—Subject to paragraph (2) and*  
 22 *notwithstanding section 3302 of title 31, United*  
 23 *States Code, the Secretary may accept, retain, and*  
 24 *use funds contributed by any person, government en-*

1        *tity, or organization for purposes of carrying out this*  
 2        *subsection—*

3                    *(A) without further appropriation; and*

4                    *(B) without fiscal year limitation.*

5                    *(2) RESTRICTION ON PARTICIPATION.—An entity*  
 6        *providing private funds for the Prize may not par-*  
 7        *ticipate in the competition for the Prize.*

8                    *(d) TECHNICAL REVIEW.—The Secretary, in consulta-*  
 9        *tion with the Committee, shall establish a technical review*  
 10       *committee composed of non-Federal officers to review data*  
 11       *submitted by Prize entrants under this section and deter-*  
 12       *mine whether the data meets the prize specifications de-*  
 13       *scribed in subsection (b).*

14                   *(e) THIRD PARTY ADMINISTRATION.—The Secretary*  
 15       *may select, on a competitive basis, a third party to admin-*  
 16       *ister awards provided under this section.*

17                   *(f) ELIGIBILITY.—To be eligible for an award under*  
 18       *this section—*

19                    *(1) in the case of a private entity, the entity*  
 20       *shall be incorporated in and maintain a primary*  
 21       *place of business in the United States; and*

22                    *(2) in the case of an individual (whether partici-*  
 23       *pating as a single individual or in a group), the in-*  
 24       *dividual shall be a citizen or lawful permanent resi-*  
 25       *dent of the United States.*



1       (g) *AWARD AMOUNTS.*—

2               (1) *IN GENERAL.*—*Subject to the availability of*  
 3 *funds to carry out this section, the amount of the*  
 4 *Prize shall be \$10,000,000.*

5               (2) *BREAKTHROUGH ACHIEVEMENT AWARDS.*—  
 6 *In addition to the award described in paragraph (1),*  
 7 *the Secretary, in consultation with the technical re-*  
 8 *view committee established under subsection (d), may*  
 9 *award cash prizes, in amounts determined by the Sec-*  
 10 *retary, in recognition of breakthrough achievements*  
 11 *in research, development, demonstration, and com-*  
 12 *mercial application of—*

13                       (A) *activities described in subsection (b); or*

14                       (B) *advances in battery durability, energy*  
 15 *density, and power density.*

16       (h) *500-MILE BATTERY AWARD FUND.*—

17               (1) *ESTABLISHMENT.*—*There is established in*  
 18 *the Treasury of the United States a fund to be known*  
 19 *as the “500-mile Battery Fund” (referred to in this*  
 20 *section as the “Fund”), to be administered by the Sec-*  
 21 *retary, to be available without fiscal year limitation*  
 22 *and subject to appropriation, to award amounts*  
 23 *under this section.*

24               (2) *TRANSFERS TO FUND.*—*The Fund shall con-*  
 25 *sist of—*

1           (A) such amounts as are appropriated to  
2           the Fund under subsection (i); and

3           (B) such amounts as are described in sub-  
4           section (c) and that are provided for the Fund.

5           (3) *PROHIBITION.*—Amounts in the Fund may  
6           not be made available for any purpose other than a  
7           purposes described in subsection (a).

8           (4) *ANNUAL REPORTS.*—

9           (A) *IN GENERAL.*—Not later than 60 days  
10          after the end of each fiscal year beginning with  
11          fiscal year 2012, the Secretary shall submit a re-  
12          port on the operation of the Fund during the fis-  
13          cal year to—

14               (i) the Committees on Appropriations  
15               of the House of Representatives and of the  
16               Senate;

17               (ii) the Committee on Energy and Nat-  
18               ural Resources of the Senate; and

19               (iii) the Committee on Energy and  
20               Commerce of the House of Representatives.

21           (B) *CONTENTS.*—Each report shall include,  
22          for the fiscal year covered by the report, the fol-  
23          lowing:

24               (i) A statement of the amounts depos-  
25               ited into the Fund.

1                   (ii) *A description of the expenditures*  
 2                   *made from the Fund for the fiscal year, in-*  
 3                   *cluding the purpose of the expenditures.*

4                   (iii) *Recommendations for additional*  
 5                   *authorities to fulfill the purpose of the*  
 6                   *Fund.*

7                   (iv) *A statement of the balance remain-*  
 8                   *ing in the Fund at the end of the fiscal*  
 9                   *year.*

10               (5) *SEPARATE APPROPRIATIONS ACCOUNT.—Sec-*  
 11               *tion 1105(a) of title 31, United States Code, is*  
 12               *amended—*

13                   (A) *by redesignating paragraphs (35) and*  
 14                   *(36) as paragraphs (36) and (37), respectively;*

15                   (B) *by redesignating the second paragraph*  
 16                   *(33) (relating to obligational authority and out-*  
 17                   *lays requested for homeland security) as para-*  
 18                   *graph (35); and*

19                   (C) *by adding at the end the following:*

20                   “(38) *a separate statement for the 500-mile Bat-*  
 21                   *tery Fund established under section 8(h) of the ‘Pro-*  
 22                   *moting Electric Vehicles Act of 2010’, which shall in-*  
 23                   *clude the estimated amount of deposits into the Fund,*  
 24                   *obligations, and outlays from the Fund.’”.*

1       (i) *AUTHORIZATION OF APPROPRIATIONS.*—*There is*  
 2 *authorized to be appropriated—*

3           (1) *\$10,000,000 to carry out subsection (g)(1);*  
 4       *and*

5           (2) *\$1,000,000 to carry out subsection (g)(2).*

6 **SEC. 203. STUDY ON THE SUPPLY OF RAW MATERIALS.**

7       (a) *IN GENERAL.*—*The Secretary of the Interior, in*  
 8 *consultation with the Secretary and the Task Force, shall*  
 9 *conduct a study that—*

10           (1) *identifies the raw materials needed for the*  
 11 *manufacture of plug-in electric drive vehicles, bat-*  
 12 *teries, and other components for plug-in electric drive*  
 13 *vehicles, and for the infrastructure needed to support*  
 14 *plug-in electric drive vehicles;*

15           (2) *describes the primary or original sources and*  
 16 *known reserves and resources of those raw materials;*

17           (3) *assesses, in consultation with the National*  
 18 *Academy of Sciences, the degree of risk to the manu-*  
 19 *facture, maintenance, deployment, and use of plug-in*  
 20 *electric drive vehicles associated with the supply of*  
 21 *those raw materials; and*

22           (4) *identifies pathways to securing reliable and*  
 23 *resilient supplies of those raw materials.*

24       (b) *REPORT.*—*Not later than 3 years after the date*  
 25 *of enactment of this Act, the Secretary of the Interior shall*

1 *submit to Congress a report that describes the results of the*  
 2 *study.*

3 (c) *AUTHORIZATION OF APPROPRIATIONS.—There is*  
 4 *authorized to be appropriated to carry out this subsection*  
 5 *\$1,500,000.*

6 **SEC. 204. STUDY ON THE COLLECTION AND PRESERVATION**  
 7 **OF DATA COLLECTED FROM PLUG-IN ELEC-**  
 8 **TRIC DRIVE VEHICLES.**

9 (a) *IN GENERAL.—Not later than 180 days after the*  
 10 *date of enactment of this Act, the Secretary, in consultation*  
 11 *with the Committee, shall enter into an agreement with the*  
 12 *National Academy of Sciences under which the Academy*  
 13 *shall conduct a study that—*

14 (1) *identifies—*

15 (A) *the data that may be collected from*  
 16 *plug-in electric drive vehicles, including data on*  
 17 *the location, charging patterns, and usage of*  
 18 *plug-in electric drive vehicles;*

19 (B) *the scientific, economic, commercial, se-*  
 20 *curity, and historic potential of the data de-*  
 21 *scribed in subparagraph (A); and*

22 (C) *any laws or regulations that relate to*  
 23 *the data described in subparagraph (A); and*

24 (2) *analyzes and provides recommendations on*  
 25 *matters that include procedures, technologies, and*

1        *rules relating to the collection, storage, and preserva-*  
 2        *tion of the data described in paragraph (1)(A).*

3        *(b) REPORT.—Not later than 15 months after the date*  
 4        *of an agreement between the Secretary and the Academy*  
 5        *under subsection (a), the National Academy of Sciences*  
 6        *shall submit to the appropriate committees of Congress a*  
 7        *report that describes the results of the study under sub-*  
 8        *section (a).*

9        *(c) AUTHORIZATION OF APPROPRIATIONS.—There is*  
 10       *authorized to be appropriated to carry out this section*  
 11       *\$1,000,000.*

## 12        ***TITLE III—MISCELLANEOUS***

### 13       ***SEC. 301. UTILITY PLANNING FOR PLUG-IN ELECTRIC*** 14       ***DRIVE VEHICLES.***

15       *(a) IN GENERAL.—The Public Utility Regulatory*  
 16       *Policies Act of 1978 (16 U.S.C. 2601 et seq.) is amended—*  
 17              *(1) in section 111(d) (16 U.S.C. 2621(d)), by*  
 18              *adding at the end the following:*

19              *“(20) PLUG-IN ELECTRIC DRIVE VEHICLE PLAN-*  
 20              *NING.—*

21              *“(A) UTILITY PLAN FOR PLUG-IN ELECTRIC*  
 22              *DRIVE VEHICLES.—*

23              *“(i) IN GENERAL.—Not later than 2*  
 24              *years after the date of enactment of this*  
 25              *paragraph, each electric utility shall de-*

1            *velop a plan to support the use of plug-in*  
 2            *electric drive vehicles, including medium-*  
 3            *and heavy-duty hybrid electric vehicles in*  
 4            *the service area of the electric utility.*

5            “(ii) *REQUIREMENTS.—A plan under*  
 6            *clause (i) shall investigate—*

7                    “(I) *various levels of potential*  
 8                    *penetration of plug-in electric drive ve-*  
 9                    *hicles in the utility service area;*

10                   “(II) *the potential impacts that*  
 11                   *the various levels of penetration and*  
 12                   *charging scenarios (including charging*  
 13                   *rates and daily hours of charging)*  
 14                   *would have on generation, distribution*  
 15                   *infrastructure, and the operation of the*  
 16                   *transmission grid; and*

17                   “(III) *the role of third parties in*  
 18                   *providing reliable and economical*  
 19                   *charging services.*

20            “(iii) *WAIVER.—*

21                   “(I) *IN GENERAL.—An electric*  
 22                   *utility that determines that the electric*  
 23                   *utility will not be impacted by plug-in*  
 24                   *electric drive vehicles during the 5-year*  
 25                   *period beginning on the date of enact-*

1                    *ment of this paragraph may petition*  
 2                    *the Secretary to waive clause (i) for 5*  
 3                    *years.*

4                    “(II) *APPROVAL.*—Approval of a  
 5                    *waiver under subclause (I) shall be in*  
 6                    *the sole discretion of the Secretary.*

7                    “(iv) *UPDATES.*—

8                    “(I) *IN GENERAL.*—Each electric  
 9                    *utility shall update the plan of the*  
 10                    *electric utility every 5 years.*

11                    “(II) *RESUBMISSION OF WAIV-*  
 12                    *ER.*—An electric utility that received a  
 13                    *waiver under clause (iii) and wants*  
 14                    *the waiver to continue after the expira-*  
 15                    *tion of the waiver shall be required to*  
 16                    *resubmit the waiver.*

17                    “(v) *EXEMPTION.*—If the Secretary de-  
 18                    *termines that a plan required by a State*  
 19                    *regulatory authority meets the requirements*  
 20                    *of this paragraph, the Secretary may accept*  
 21                    *that plan and exempt the electric utility*  
 22                    *submitting the plan from the requirements*  
 23                    *of clause (i).*

24                    “(B) *SUPPORT REQUIREMENTS.*—Each  
 25                    *State regulatory authority (in the case of each*



1       *electric utility for which the authority has rate-*  
 2       *making authority) and each municipal and co-*  
 3       *operative utility shall—*

4               “(i) participate in any local plan for  
 5               the deployment of recharging infrastructure  
 6               in communities located in the footprint of  
 7               the authority or utility;

8               “(ii) require that charging infrastruc-  
 9               ture deployed is interoperable with products  
 10              of all auto manufacturers to the maximum  
 11              extent practicable; and

12              “(iii) consider adopting minimum re-  
 13              quirements for deployment of electrical  
 14              charging infrastructure and other appro-  
 15              priate requirements necessary to support the  
 16              use of plug-in electric drive vehicles.

17              “(C) *COST RECOVERY.*—Each State regu-  
 18              latory authority (in the case of each electric util-  
 19              ity for which the authority has ratemaking au-  
 20              thority) and each municipal and cooperative  
 21              utility may consider whether, and to what ex-  
 22              tent, to allow cost recovery for plans and imple-  
 23              mentation of plans.

24              “(D) *DETERMINATION.*—Not later than 3  
 25              years after the date of enactment of this para-

graph, each State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority), and each municipal and cooperative electric utility, shall complete the consideration, and shall make the determination, referred to in subsection (a) with respect to the standard established by this paragraph.”;

(2) in section 112(c) (16 U.S.C. 2622(c))—

(A) in the first sentence, by striking “Each State” and inserting the following:

“(1) IN GENERAL.—Each State”;

(B) in the second sentence, by striking “In the case” and inserting the following:

“(2) SPECIFIC STANDARDS.—

“(A) NET METERING AND FOSSIL FUEL GENERATION EFFICIENCY.—In the case”;

(C) in the third sentence, by striking “In the case” and inserting the following:

“(B) TIME-BASED METERING AND COMMUNICATIONS.—In the case”;

(D) in the fourth sentence—

(i) by striking “In the case” and inserting the following:

“(C) INTERCONNECTION.—In the case”; and

1                   (ii) by striking “paragraph (15)” and  
 2                   inserting “paragraph (15) of section  
 3                   111(d)”;

4                   (E) in the fifth sentence, by striking “In the  
 5                   case” and inserting the following:

6                   “(D) INTEGRATED RESOURCE PLANNING,  
 7                   RATE DESIGN MODIFICATIONS, SMART GRID IN-  
 8                   VESTMENTS, SMART GRID INFORMATION.—In the  
 9                   case”; and

10                  (F) by adding at the end the following:

11                  “(E) PLUG-IN ELECTRIC DRIVE VEHICLE  
 12                  PLANNING.—In the case of the standards estab-  
 13                  lished by paragraph (20) of section 111(d), the  
 14                  reference contained in this subsection to the date  
 15                  of enactment of this Act shall be deemed to be a  
 16                  reference to the date of enactment of that para-  
 17                  graph.”; and

18                  (3) in section 112(d) (16 U.S.C. 2622(d)), in the  
 19                  matter preceding paragraph (1), by striking “(19)”  
 20                  and inserting “(20)”.

21                  (b) REPORT.—

22                  (1) IN GENERAL.—The Secretary, in consultation  
 23                  with the Technical Advisory Committee, shall convene  
 24                  a group of utility stakeholders, charging infrastruc-  
 25                  ture providers, third party aggregators, and others, as

1       *appropriate, to discuss and determine the potential*  
2       *models for the technically and logistically challenging*  
3       *issues involved in using electricity as a fuel for vehi-*  
4       *cles, including—*

5               *(A) accommodation for billing for charging*  
6               *a plug-in electric drive vehicle, both at home and*  
7               *at publicly available charging infrastructure;*

8               *(B) plans for anticipating vehicle to grid*  
9               *applications that will allow batteries in cars as*  
10              *well as banks of batteries to be used for grid stor-*  
11              *age, ancillary services provision, and backup*  
12              *power;*

13              *(C) integration of plug-in electric drive ve-*  
14              *hicles with smart grid, including protocols and*  
15              *standards, necessary equipment, and informa-*  
16              *tion technology systems; and*

17              *(D) any other barriers to installing suffi-*  
18              *cient and appropriate charging infrastructure.*

19       *(2) REPORT.—Not later than 2 years after the*  
20       *date of enactment of this Act and biennially there-*  
21       *after, the Secretary shall submit to the appropriate*  
22       *committees of Congress a report that includes—*

23              *(A) the issues and model solutions described*  
24              *in paragraph (1); and*

1                   (B) any other issues that the Task Force  
2                   and Secretary determine to be appropriate.

3 **SEC. 302. LOAN GUARANTEES.**

4           (a) *LOAN GUARANTEES FOR ADVANCED BATTERY*  
5 *PURCHASES FOR USE IN STATIONARY APPLICATIONS.*—  
6 *Subtitle B of title I of the Energy Independence and Secu-*  
7 *rity Act of 2007 (42 U.S.C. 17011 et seq.) is amended by*  
8 *adding at the end the following:*

9 **“SEC. 137. LOAN GUARANTEES FOR ADVANCED BATTERY**  
10 **PURCHASES.**

11           “(a) *DEFINITIONS.*—*In this section:*

12                   “(1) *QUALIFIED AUTOMOTIVE BATTERY.*—*The*  
13 *term ‘qualified automotive battery’ means a battery*  
14 *that—*

15                           “(A) *has at least 4 kilowatt hours of battery*  
16 *capacity; and*

17                           “(B) *is designed for use in qualified plug-*  
18 *in electric drive motor vehicles but is purchased*  
19 *for nonautomotive applications.*

20                   “(2) *ELIGIBLE ENTITY.*—*The term ‘eligible enti-*  
21 *ty’ means—*

22                           “(A) *an original equipment manufacturer;*

23                           “(B) *an electric utility;*

24                           “(C) *any provider of range extension infra-*  
25 *structure; or*

1                   “(D) any other qualified entity, as deter-  
 2                   mined by the Secretary.

3                   “(b) LOAN GUARANTEES.—

4                   “(1) IN GENERAL.—The Secretary shall guar-  
 5                   antee loans made to eligible entities for the aggregate  
 6                   purchase of not less than 200 qualified automotive  
 7                   batteries in a calendar year that have a total min-  
 8                   imum power rating of 1 megawatt and use advanced  
 9                   battery technology.

10                  “(2) RESTRICTION.—As a condition of receiving  
 11                  a loan guarantee under this section, an entity pur-  
 12                  chasing qualified automotive batteries with loan funds  
 13                  guaranteed under this section shall comply with the  
 14                  provisions of the Buy American Act (41 U.S.C. 10a  
 15                  et seq.).

16                  “(c) REGULATIONS.—The Secretary shall promulgate  
 17                  such regulations as are necessary to carry out this section.

18                  “(d) AUTHORIZATION OF APPROPRIATIONS.—There is  
 19                  authorized to be appropriated to carry out this section  
 20                  \$50,000,000.”.

21                  (b) LOAN GUARANTEES FOR CHARGING INFRASTRUC-  
 22                  TURE.—Section 1705(a) of the Energy Policy Act of 2005  
 23                  (42 U.S.C. 16516(a)) is amended by adding at the end the  
 24                  following:

1           “(4) Charging infrastructure and networks of  
 2           charging infrastructure for plug-in drive electric vehi-  
 3           cles, if the charging infrastructure will be operational  
 4           prior to December 31, 2016.”.

5   **SEC. 303. PROHIBITION ON DISPOSING OF ADVANCED BAT-**  
 6           **TERIES IN LANDFILLS.**

7           (a) *DEFINITION OF ADVANCED BATTERY.*—

8                   (1) *IN GENERAL.*—In this section, the term “ad-  
 9           vanced battery” means a battery that is a secondary  
 10          (rechargeable) electrochemical energy storage device  
 11          that has enhanced energy capacity.

12                  (2) *EXCLUSIONS.*—The term “advanced battery”  
 13          does not include—

14                           (A) a primary (nonrechargeable) battery; or

15                           (B) a lead-acid battery that is used to start  
 16          or serve as the principal electrical power source  
 17          for a plug-in electric drive vehicle.

18           (b) *REQUIREMENT.*—An advanced battery from a  
 19          plug-in electric drive vehicle shall be disposed of in accord-  
 20          ance with the Solid Waste Disposal Act (42 U.S.C. 6901  
 21          et seq.) (commonly known as the “Resource Conservation  
 22          and Recovery Act of 1976”).

1 **SEC. 304. PLUG-IN ELECTRIC DRIVE VEHICLE TECHNICAL**  
2 **ADVISORY COMMITTEE.**

3 (a) *IN GENERAL.*—*There is established the Plug-in*  
4 *Electric Drive Vehicle Technical Advisory Committee to ad-*  
5 *vis* *the Secretary on the programs and activities under this*  
6 *Act.*

7 (b) *MISSION.*—*The mission of the Committee shall be*  
8 *to advise the Secretary on technical matters, including—*

9 (1) *the priorities for research and development;*

10 (2) *means of accelerating the deployment of safe,*  
11 *economical, and efficient plug-in electric drive vehi-*  
12 *cles for mass market adoption;*

13 (3) *the development and deployment of charging*  
14 *infrastructure;*

15 (4) *the development of uniform codes, standards,*  
16 *and safety protocols for plug-in electric drive vehicles*  
17 *and charging infrastructure; and*

18 (5) *reporting on the competitiveness of the*  
19 *United States in plug-in electric drive vehicle and in-*  
20 *frastructure research, manufacturing, and deploy-*  
21 *ment.*

22 (c) *MEMBERSHIP.*—

23 (1) *MEMBERS.*—

24 (A) *IN GENERAL.*—*The Committee shall*  
25 *consist of not less than 12, but not more than 25,*  
26 *members.*



1                   (B) *REPRESENTATION.*—*The Secretary shall*  
 2                   *appoint the members to Committee from among*  
 3                   *representatives of—*

4                               (i) *domestic industry;*

5                               (ii) *institutions of higher education;*

6                               (iii) *professional societies;*

7                               (iv) *Federal, State, and local govern-*  
 8                               *mental agencies (including the National*  
 9                               *Laboratories); and*

10                              (v) *financial, transportation, labor, en-*  
 11                              *vironmental, electric utility, or other appro-*  
 12                              *priate organizations or individuals with di-*  
 13                              *rect experience in deploying and marketing*  
 14                              *plug-in electric drive vehicles, as the Sec-*  
 15                              *retary determines to be necessary.*

16                   (2) *TERMS.*—

17                              (A) *IN GENERAL.*—*The term of a Committee*  
 18                              *member shall not be longer than 3 years.*

19                              (B) *STAGGERED TERMS.*—*The Secretary*  
 20                              *may appoint members to the Committee for dif-*  
 21                              *fering term lengths to ensure continuity in the*  
 22                              *functioning of the Committee.*

23                              (C) *REAPPOINTMENTS.*—*A member of the*  
 24                              *Committee whose term is expiring may be re-*  
 25                              *appointed.*

1           (3) *CHAIRPERSON.*—*The Committee shall have a*  
2           *chairperson, who shall be elected by and from the*  
3           *members.*

4           (d) *REVIEW.*—*The Committee shall review and make*  
5           *recommendations to the Secretary on the implementation*  
6           *of programs and activities under this Act.*

7           (e) *RESPONSE.*—

8                 (1) *IN GENERAL.*—*The Secretary shall consider*  
9                 *and may adopt any recommendation of the Com-*  
10                *mittee under subsection (c).*

11               (2) *BIENNIAL REPORT.*—

12                     (A) *IN GENERAL.*—*Not later than 2 years*  
13                     *after the date of enactment of this Act and every*  
14                     *2 years thereafter, the Secretary shall submit to*  
15                     *the appropriate committees of Congress a report*  
16                     *describing any new recommendations of the*  
17                     *Committee.*

18                     (B) *CONTENTS.*—*The report shall include—*

19                             (i) *a description of the manner in*  
20                             *which the Secretary has implemented or*  
21                             *plans to implement the recommendations of*  
22                             *the Committee; or*

23                             (ii) *an explanation of the reason that*  
24                             *a recommendation of the Committee has not*  
25                             *been implemented.*

1           (C) *TIMING.*—*The report described in this*  
 2           *paragraph shall be submitted by the Secretary at*  
 3           *the same time the President submits the budget*  
 4           *proposal for the Department of Energy to Con-*  
 5           *gress.*

6           (f) *COORDINATION.*—*The Committee shall—*

7           (1) *hold joint annual meetings with the Hydro-*  
 8           *gen and Fuel Cell Technical Advisory Committee es-*  
 9           *tablished by section 807 of the Energy Policy Act of*  
 10          *2005 (42 U.S.C. 16156) to help coordinate the work*  
 11          *and recommendations of the Committees; and*

12          (2) *coordinate efforts, to the maximum extent*  
 13          *practicable, with all existing independent, depart-*  
 14          *mental, and other advisory Committees, as deter-*  
 15          *mined to be appropriate by the Secretary.*

16          (g) *SUPPORT.*—*The Secretary shall provide to the*  
 17          *Committee the resources necessary to carry out this section,*  
 18          *as determined to be necessary by the Secretary.*

19   **SEC. 305. PLUG-IN ELECTRIC DRIVE VEHICLE INTERAGENCY**  
 20           **TASK FORCE.**

21          (a) *IN GENERAL.*—*Not later than 120 days after the*  
 22          *date of enactment of this Act, the President shall establish*  
 23          *the Plug-in Electric Drive Vehicle Interagency Task Force,*  
 24          *to be chaired by the Secretary and which shall consist of*  
 25          *at least 1 representative from each of—*

- 1           (1) *the Office of Science and Technology Policy;*
- 2           (2) *the Council on Environmental Quality;*
- 3           (3) *the Department of Energy;*
- 4           (4) *the Department of Transportation;*
- 5           (5) *the Department of Defense;*
- 6           (6) *the Department of Commerce (including the*
- 7           *National Institute of Standards and Technology);*
- 8           (7) *the Environmental Protection Agency;*
- 9           (8) *the General Services Administration; and*
- 10          (9) *any other Federal agencies that the President*
- 11          *determines to be appropriate.*

12          (b) *MISSION.—The mission of the Task Force shall be*  
13          *to ensure awareness, coordination, and integration of the*  
14          *activities of the Federal Government relating to plug-in*  
15          *electric drive vehicles, including—*

- 16               (1) *plug-in electric drive vehicle research and de-*
- 17               *velopment (including necessary components);*
- 18               (2) *the development of widely accepted smart-*
- 19               *grid standards and protocols for charging infrastruc-*
- 20               *ture;*
- 21               (3) *the relationship of plug-in electric drive vehi-*
- 22               *cle charging practices to electric utility regulation;*
- 23               (4) *the relationship of plug-in electric drive vehi-*
- 24               *cle deployment to system reliability and security;*

1           (5) *the general deployment of plug-in electric*  
 2           *drive vehicles in the Federal, State, and local govern-*  
 3           *ments and for private use;*

4           (6) *the development of uniform codes, standards,*  
 5           *and safety protocols for plug-in electric drive vehicles*  
 6           *and charging infrastructure; and*

7           (7) *the alignment of international plug-in elec-*  
 8           *tric drive vehicle standards.*

9           (c) *ACTIVITIES.—*

10           (1) *IN GENERAL.—In carrying out this section,*  
 11           *the Task Force may—*

12                   (A) *organize workshops and conferences;*

13                   (B) *issue publications; and*

14                   (C) *create databases.*

15           (2) *MANDATORY ACTIVITIES.—In carrying out*  
 16           *this section, the Task Force shall—*

17                   (A) *foster the exchange of generic, non-*  
 18                   *proprietary information and technology among*  
 19                   *industry, academia, and the Federal Govern-*  
 20                   *ment;*

21                   (B) *integrate and disseminate technical and*  
 22                   *other information made available as a result of*  
 23                   *the programs and activities under this Act;*

24                   (C) *support education about plug-in electric*  
 25                   *drive vehicles;*

1           (D) monitor, analyze, and report on the ef-  
2       fects of plug-in electric drive vehicle deployment  
3       on the environment and public health, including  
4       air emissions from vehicles and electricity gener-  
5       ating units; and

6           (E) review and report on—

7               (i) opportunities to use Federal pro-  
8       grams (including laws, regulations, and  
9       guidelines) to promote the deployment of  
10      plug-in electric drive vehicles; and

11              (ii) any barriers to the deployment of  
12      plug-in electric drive vehicles, including  
13      barriers that are attributable to Federal  
14      programs (including laws, regulations, and  
15      guidelines).

16      (d) AGENCY COOPERATION.—A Federal agency—

17              (1) shall cooperate with the Task Force; and

18              (2) provide, on request of the Task Force, appro-  
19      priate assistance in carrying out this section, in ac-  
20      cordance with applicable Federal laws (including reg-  
21      ulations).



Calendar No. 623

11<sup>TH</sup> CONGRESS  
2<sup>D</sup> Session

**S. 3495**

[Report No. 111-336]

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**A BILL**

To promote the deployment of plug-in electric drive  
vehicles, and for other purposes.

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SEPTEMBER 28, 2010

Reported with an amendment