

112TH CONGRESS  
1ST SESSION

# S. 1001

To reduce oil consumption and improve energy security, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

MAY 16, 2011

Mr. WYDEN (for himself and Ms. STABENOW) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

To reduce oil consumption and improve energy security, 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; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the  
5 “Alternative Fuel Vehicles Competitiveness and Energy  
6 Security Act of 2011”.

7 (b) **TABLE OF CONTENTS.**—The table of contents of  
8 this Act is as follows:

Sec. 1. Short title; table of contents.  
Sec. 2. Definitions.

TITLE I—ALTERNATIVE FUEL VEHICLE DEPLOYMENT AND  
INFRASTRUCTURE DEVELOPMENT

- Sec. 101. Loan guarantees for alternative fuel infrastructure.
- Sec. 102. Advanced technology vehicles manufacturing incentive program.
- Sec. 103. Conventional fuel replacement calculation and assessment.
- Sec. 104. Technical assistance and coordination.
- Sec. 105. Workforce training.
- Sec. 106. Reduction of engine idling and conventional fuel consumption.
- Sec. 107. Electric and natural gas utility and oil pipeline participation.
- Sec. 108. HOV lane access extension.
- Sec. 109. Research, development, and demonstration.

TITLE II—FUNDING AND OFFSETS

- Sec. 201. Authorization of appropriations.
- Sec. 202. Strategic Petroleum Reserve.
- Sec. 203. Transfers.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **ALTERNATIVE FUEL.**—The term “alter-  
4 native fuel” has the meaning given the term in sec-  
5 tion 30B(e)(4) of the Internal Revenue Code of  
6 1986.

7 (2) **ALTERNATIVE FUEL VEHICLE.**—The term  
8 “alternative fuel vehicle” means—

9 (A) a new qualified alternative fuel motor  
10 vehicle (as defined in section 30B(e)(4) of the  
11 Internal Revenue Code of 1986);

12 (B) a mixed-fuel vehicle (as defined in sec-  
13 tion 30B(e)(5)(B) of that Code);

14 (C) a new qualified plug-in electric drive  
15 motor vehicle (as defined in section 30D(d) of  
16 that Code); or

1 (D) a nonroad vehicle manufactured to pri-  
2 marily use an alternative fuel.

3 (3) COMMUNITY COLLEGE.—The term “commu-  
4 nity college” has the meaning given the term “junior  
5 or community college” in section 312 of the Higher  
6 Education Act of 1965 (20 U.S.C. 1058).

7 (4) DEPARTMENT.—The term “Department”  
8 means the Department of Energy.

9 (5) NONROAD VEHICLE.—

10 (A) IN GENERAL.—The term “nonroad ve-  
11 hicle” means a vehicle that is not licensed for  
12 onroad use.

13 (B) INCLUSIONS.—The term “nonroad ve-  
14 hicle” includes a vehicle described in subpara-  
15 graph (A) that is used principally—

16 (i) for industrial, farming, or commer-  
17 cial use;

18 (ii) for rail transportation;

19 (iii) at an airport; or

20 (iv) for marine purposes.

21 (6) SECRETARY.—The term “Secretary” means  
22 the Secretary of Energy.

1 **TITLE I—ALTERNATIVE FUEL**  
2 **VEHICLE DEPLOYMENT AND**  
3 **INFRASTRUCTURE DEVELOP-**  
4 **MENT**

5 **SEC. 101. LOAN GUARANTEES FOR ALTERNATIVE FUEL IN-**  
6 **FRASTRUCTURE.**

7 (a) IN GENERAL.—Section 1703(a) of the Energy  
8 Policy Act of 2005 (42 U.S.C. 16513(a)) is amended—

9 (1) in paragraph (1), by striking “and” after  
10 the semicolon at the end;

11 (2) by redesignating paragraph (2) as para-  
12 graph (3); and

13 (3) by inserting after paragraph (1) the fol-  
14 lowing:

15 “(2) reduce oil imports through the use of al-  
16 ternative fuel (as defined in section 30B(e)(4) of the  
17 Internal Revenue Code of 1986); and”.

18 (b) CATEGORIES.—Section 1703(b) of the Energy  
19 Policy Act of 2005 (42 U.S.C. 16513(b)) is amended by  
20 adding at the following:

21 “(11) The production and distribution of—

22 “(A) alternative fuel (as defined in section  
23 30B(e)(4) of the Internal Revenue Code of  
24 1986); or

1           “(B) advanced biofuel (as defined in sec-  
2           tion 211(o)(1) of the Clean Air Act (42 U.S.C.  
3           7545(o)(1))).”.

4 **SEC. 102. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**  
5 **TURING INCENTIVE PROGRAM.**

6           Section 136 of the Energy Independence and Security  
7 Act of 2007 (42 U.S.C. 17013) is amended—

8           (1) in subsection (a)—

9           (A) in paragraph (1)—

10           (i) by redesignating subparagraphs  
11           (A) through (C) as clauses (i) through  
12           (iii), respectively, and indenting appro-  
13           priately;

14           (ii) in the matter preceding clause (i)  
15           (as redesignated by clause (i)), by striking  
16           “means an ultra efficient vehicle or a light  
17           duty vehicle that meets—” and inserting  
18           “means—

19           “(A) an ultra efficient vehicle or a light  
20           duty vehicle that meets—”;

21           (iii) in clause (iii) (as redesignated by  
22           clause (i)), by striking the period at the  
23           end and inserting a semicolon; and

24           (iv) by adding at the end the fol-  
25           lowing:

1           “(B) a vehicle (such as a medium-duty or  
2 heavy-duty work truck, bus, or rail transit vehi-  
3 cle) that—

4                   “(i) is used on a public street, road,  
5 highway, or transitway;

6                   “(ii) meets each applicable emission  
7 standard that is established as of the date  
8 of the application; and

9                   “(iii) will reduce consumption of con-  
10 ventional motor fuel by 25 percent or  
11 more, as compared to existing surface  
12 transportation technologies that perform a  
13 similar function, unless the Secretary de-  
14 termines that—

15                           “(I) the percentage is not achiev-  
16 able for a vehicle type or class; and

17                           “(II) an alternative percentage  
18 for that vehicle type or class will re-  
19 sult in substantial reductions in motor  
20 fuel consumption within the United  
21 States; and

22                   “(C) an alternative fuel vehicle (as defined  
23 in section 2 of the Alternative Fuel Vehicles  
24 Competitiveness and Energy Security Act of  
25 2011) that—

1 “(i) meets each applicable emission  
 2 standard that is established as of the date  
 3 of the application; and

4 “(ii) will reduce consumption of con-  
 5 ventional fuel by 25 percent or more, as  
 6 compared to existing surface transpor-  
 7 tation technologies that perform a similar  
 8 function, unless the Secretary determines  
 9 that—

10 “(I) the percentage is not achiev-  
 11 able for a vehicle type or class; and

12 “(II) an alternative percentage  
 13 for that vehicle type or class will re-  
 14 sult in substantial reductions in con-  
 15 ventional fuel consumption within the  
 16 United States.”;

17 (B) in paragraph (3)(B)—

18 (i) by striking “equipment and” and  
 19 inserting “equipment,”; and

20 (ii) by inserting “, and manufacturing  
 21 process equipment” after “suppliers”; and

22 (C) by striking paragraph (4) and insert-  
 23 ing the following:

24 “(4) QUALIFYING COMPONENTS.—The term  
 25 ‘qualifying components’ means components, systems,

1 or groups of subsystems that the Secretary deter-  
2 mines—

3 “(A) to be designed to improve fuel econ-  
4 omy or the substitution of conventional fuel  
5 with—

6 “(i) alternative fuel (as defined in sec-  
7 tion 30B(e)(4) of the Internal Revenue  
8 Code of 1986); or

9 “(ii) advanced biofuel (as defined in  
10 section 211(o)(1) of the Clean Air Act (42  
11 U.S.C. 7545(o)(1))); or

12 “(B) to contribute measurably to the over-  
13 all improved fuel use of an advanced technology  
14 vehicle, including idle reduction technologies.”;

15 (2) in subsection (b), in the matter preceding  
16 paragraph (1), by striking “to automobile” and in-  
17 serting “to advanced technology vehicle”;

18 (3) in subsection (d)(1), in the first sentence,  
19 by striking “a total of not more than  
20 \$25,000,000,000 in”;

21 (4) in subsection (h)—

22 (A) in the subsection heading, by striking  
23 “AUTOMOBILE” and inserting “ADVANCED  
24 TECHNOLOGY VEHICLE”; and



1 (B) in paragraph (1)(B), by striking  
2 “automobiles” each place it appears and insert-  
3 ing “advanced technology vehicles”; and  
4 (5) in subsection (i), by striking “2012” and in-  
5 serting “2016”.

6 **SEC. 103. CONVENTIONAL FUEL REPLACEMENT CALCULA-**  
7 **TION AND ASSESSMENT.**

8 (a) **METHODOLOGY.**—Not later than 180 days after  
9 the date of enactment of this Act, the Secretary shall, by  
10 rule, develop a methodology for calculating the equivalent  
11 volumes of conventional fuel displaced by use of each alter-  
12 native fuel to assess the effectiveness of alternative fuel  
13 and alternative fuel vehicles in reducing oil imports.

14 (b) **NATIONAL ASSESSMENT.**—Not later than 3 years  
15 after the date of enactment of this Act, the Secretary  
16 shall—

17 (1) conduct a national assessment (using the  
18 methodology developed under subsection (a)) of the  
19 effectiveness of alternative fuel and alternative fuel  
20 vehicles in reducing oil imports into the United  
21 States, including as assessment of—

22 (A) market penetration of alternative fuel  
23 and alternative fuel vehicles in the United  
24 States;

1 (B) successes and barriers to deployment  
2 identified by the programs established under  
3 this Act; and

4 (C) the maximum feasible deployment of  
5 alternative fuel and alternative fuel vehicles by  
6 2020 and 2030; and

7 (2) report to Congress the results of the assess-  
8 ment.

9 **SEC. 104. TECHNICAL ASSISTANCE AND COORDINATION.**

10 (a) TECHNICAL ASSISTANCE TO STATE, LOCAL, AND  
11 TRIBAL GOVERNMENTS.—

12 (1) IN GENERAL.—In carrying out this title, the  
13 Secretary shall provide, at the request of the Gov-  
14 ernor, mayor, county executive, public utility com-  
15 missioner, or other appropriate official or designee,  
16 technical assistance to State, local, and tribal gov-  
17 ernments or to a public-private partnership de-  
18 scribed in paragraph (2) to assist with the deploy-  
19 ment of alternative fuel and alternative fuel vehicles  
20 and infrastructure.

21 (2) PUBLIC-PRIVATE PARTNERSHIP.—Technical  
22 assistance under this section may be awarded to a  
23 public-private partnership, comprised of State, local  
24 or tribal governments and nongovernmental entities,  
25 including—

1 (A) electric or natural gas utilities or other  
2 alternative fuel distributors;

3 (B) vehicle manufacturers;

4 (C) alternative fuel vehicle or alternative  
5 fuel technology providers;

6 (D) vehicle fleet owners;

7 (E) transportation and freight service pro-  
8 viders; or

9 (F) other appropriate non-Federal entities,  
10 as determined by the Secretary.

11 (3) ASSISTANCE.—The technical assistance de-  
12 scribed in paragraph (1) may include—

13 (A) coordination in the selection, location,  
14 and timing of alternative fuel recharging and  
15 refueling equipment and distribution infrastruc-  
16 ture, including the identification of transpor-  
17 tation corridors and specific alternative fuels  
18 that would be made available;

19 (B) development of protocols and commu-  
20 nication standards that facilitate vehicle refuel-  
21 ing and recharging into electric, natural gas,  
22 and other alternative fuel distribution systems;

23 (C) development of codes and standards  
24 for the installation of alternative fuel distribu-  
25 tion and recharging and refueling equipment;

1 (D) education and outreach for the deploy-  
2 ment of alternative fuel and alternative fuel ve-  
3 hicles; and

4 (E) utility rate design and integration of  
5 alternative fuel vehicles into electric and natural  
6 gas utility distribution systems.

7 (b) COST SHARING.—Cost sharing for assistance  
8 awarded under this section shall be consistent with section  
9 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

10 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
11 authorized to be appropriated to carry out this section  
12 \$50,000,000 for each of fiscal years 2012 through 2016.

13 **SEC. 105. WORKFORCE TRAINING.**

14 (a) WORKFORCE TRAINING.—

15 (1) IN GENERAL.—The Secretary, in consulta-  
16 tion with the Secretary of Labor, shall award grants  
17 to community colleges, other institutions of higher  
18 education, and other qualified training and edu-  
19 cation institutions for the establishment or expan-  
20 sion of programs to provide training and education  
21 for vocational workforce development for—

22 (A) the manufacture and maintenance of  
23 alternative fuel vehicles; and

1 (B) the manufacture and installation and  
2 inspection of alternative fuel recharging, refuel-  
3 ing, and distribution infrastructure.

4 (2) PURPOSE.—Training funded under this  
5 subsection shall be intended to ensure that the work-  
6 force has the necessary skills needed to manufac-  
7 ture, install, and maintain alternative fuel infra-  
8 structure and alternative fuel vehicles.

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

11 (A) electricians, plumbers, pipefitters, and  
12 other trades and contractors who will be install-  
13 ing alternative fuel recharging, refueling, and  
14 distribution infrastructure;

15 (B) building code inspection officials;

16 (C) vehicle, engine, and powertrain dealers  
17 and mechanics; and

18 (D) others positions as the Secretary de-  
19 termines necessary to successfully deploy alter-  
20 native fuels and vehicles.

21 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
22 authorized to be appropriated to carry out this section  
23 \$50,000,000 for each of fiscal years 2012 through 2016.

1 **SEC. 106. REDUCTION OF ENGINE IDLING AND CONVEN-**  
 2 **TIONAL FUEL CONSUMPTION.**

3 (a) DEFINITION OF IDLE REDUCTION TECH-  
 4 NOLOGY.—Section 756(a)(5) of the Energy Policy Act of  
 5 2005 (42 U.S.C. 16104(a)(5)) is amended—

6 (1) in subparagraph (A), by striking “and”  
 7 after the semicolon at the end;

8 (2) in subparagraph (B), by striking the period  
 9 at the end and inserting “; and”; and

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

11 “(C) uses an alternative fuel to reduce con-  
 12 sumption of conventional fuel and environ-  
 13 mental emissions.”.

14 (b) FUNDING.—Section 756(b)(4)(B) of the Energy  
 15 Policy Act of 2005 (42 U.S.C. 16104(b)(4)(B)) is amend-  
 16 ed in clauses (i) and (ii) by striking “fiscal year 2008”  
 17 each place it appears and inserting “each of fiscal years  
 18 2008 through 2016”.

19 **SEC. 107. ELECTRIC AND NATURAL GAS UTILITY AND OIL**  
 20 **PIPELINE PARTICIPATION.**

21 (a) IN GENERAL.—The Secretary shall identify bar-  
 22 riers and remedies in existing electric and natural gas and  
 23 oil pipeline transmission and distribution systems to the  
 24 distribution of alternative fuels and the deployment of al-  
 25 ternative fuel recharging and refueling capability, at eco-

1 nomically competitive costs of alternative fuel for con-  
2 sumers, including—

3 (1) model regulatory rate design and billing for  
4 recharging and refueling alternative fuel vehicles;

5 (2) electric grid load management and applica-  
6 tions that will allow batteries in plug-in electric drive  
7 vehicles to be used for grid storage, ancillary serv-  
8 ices provision, and backup power;

9 (3) integration of plug-in electric drive vehicles  
10 with smart grid technology, including protocols and  
11 standards, necessary equipment, and information  
12 technology systems;

13 (4) technical and economic barriers to trans-  
14 shipment of biofuels by oil pipelines; and

15 (5) any other barriers to installing sufficient  
16 and appropriate alternative fuel recharging and re-  
17 fueling infrastructure.

18 (b) CONSULTATION.—The Secretary shall carry out  
19 this section in consultation with—

20 (1) the Federal Energy Regulatory Commission;

21 (2) State public utility commissions;

22 (3) State consumer advocates;

23 (4) electric and natural gas utility and trans-  
24 mission owners and operators;

25 (5) oil pipeline owners and operators; and

1 (6) other affected entities.

2 (c) REPORT.—Not later than 2 years after the date  
3 of enactment of this Act, the Secretary shall submit to  
4 Congress a report describing actions taken to carry out  
5 this section.

6 **SEC. 108. HOV LANE ACCESS EXTENSION.**

7 Section 166(b)(5) of title 23, United States Code, is  
8 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 **SEC. 109. RESEARCH, DEVELOPMENT, AND DEMONSTRATION.**  
16 **TION.**

17 (a) RESEARCH, DEVELOPMENT, AND DEMONSTRATION.—  
18 TION.—

19 (1) IN GENERAL.—The Secretary, in consulta-  
20 tion with the Secretary of Defense, the Secretary of  
21 Commerce, and the Secretary of Transportation,  
22 shall support research, development, and demonstra-  
23 tion of alternative fuel vehicles and charging and re-  
24 fueling technology, including support for the manu-



1       facture and deployment of those vehicles and tech-  
2       nologies, that will—

3               (A) allow the United States to meet or ex-  
4               ceed the petroleum import reduction goals of  
5               this Act;

6               (B) develop technologies that minimize life-  
7               cycle energy use in the production and distribu-  
8               tion of alternative fuels; and

9               (C) maintain United States technological  
10              leadership in alternative vehicle technology.

11             (2) USE OF FUNDS.—The program may include  
12             funding for—

13               (A) the development of alternative fuel ve-  
14               hicle technologies, including new technologies  
15               for on-board alternative fuel and energy storage  
16               and drive train components for vehicles; and

17               (B) production and distribution tech-  
18               nologies and systems for alternative fuels, in-  
19               cluding—

20                   (i) grid connectivity technology for  
21                   electric vehicles;

22                   (ii) recycling technology and prac-  
23                   ticable uses of catalysts;

24                   (iii) vehicle batteries; and

1 (iv) other components after the useful  
2 life in a vehicle or alternative fuel produc-  
3 tion facility.

4 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
5 authorized to be appropriated to carry out this section  
6 \$100,000,000 for each of fiscal years 2012 through 2016.

7 **TITLE II—FUNDING AND**  
8 **OFFSETS**

9 **SEC. 201. AUTHORIZATION OF APPROPRIATIONS.**

10 Except as otherwise provided in this Act, there are  
11 authorized to be appropriated to carry out this Act and  
12 the amendments made by this Act such sums as are nec-  
13 essary.

14 **SEC. 202. STRATEGIC PETROLEUM RESERVE.**

15 (a) LEVEL.—Section 154(a) of the Energy Policy and  
16 Conservation Act (42 U.S.C. 6234(a)) is amended by  
17 striking “1 billion barrels of petroleum products” and in-  
18 serting “the quantity of crude oil and petroleum fuels im-  
19 ported into the United States each year from countries  
20 that are not signatories to North American Free Trade  
21 Agreement during an average 90-day period during the  
22 most recent calendar year for which data are available”.

23 (b) FILLING STRATEGIC PETROLEUM RESERVE TO  
24 CAPACITY.—Section 301(e) of the Energy Policy Act of

1 2005 (42 U.S.C. 6240 note; Public Law 109–58) is  
2 amended by striking paragraph (1).

3 **SEC. 203. TRANSFERS.**

4 (a) FISCAL YEAR 2009.—Of the funds appropriated  
5 under section 101 of division A of the Consolidated Secu-  
6 rity, Disaster Assistance, and Continuing Appropriations  
7 Act, 2009 (Public Law 110–329; 122 Stat. 3574) for the  
8 Strategic Petroleum Reserve under the heading “Strategic  
9 Petroleum Reserve” of title III of the Energy and Water  
10 Development and Related Agencies Appropriations Act,  
11 2008 (Public Law 110–161; 121 Stat. 1959),  
12 \$31,500,000 is transferred to carry out this Act and the  
13 amendments made by this Act.

14 (b) FISCAL YEAR 2010.—Of the funds appropriated  
15 under the heading “Strategic Petroleum Reserve” of title  
16 III of the Energy and Water Development and Related  
17 Agencies Appropriations Act, 2010 (Public Law 111–85;  
18 123 Stat. 2862), \$25,000,000 is transferred to carry out  
19 this Act and the amendments made by this Act.

20 (c) USE OF PROCEEDS.—Notwithstanding any other  
21 provision of law, any proceeds from the sale or exchange  
22 of oil necessary to reach and maintain the authorized ca-  
23 pacity established pursuant to section 154(a) of the En-  
24 ergy Policy and Conservation Act (42 U.S.C. 6234(a)) and  
25 provide for normal maintenance and operation of the Re-

- 1 serve shall be transferred to carry out this Act and the
- 2 amendments made by this Act.

○